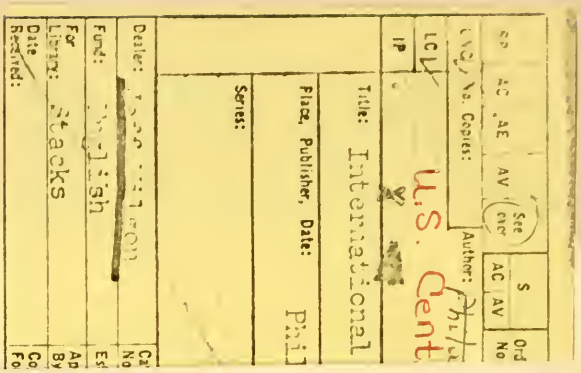
Official Catalogue

OF THE

U.S. INTERNATIONAL EXHIBITION

1876.

REVISED EDITION



THE LIBRARY OF THE
UNIVERSITY OF
NORTH CAROLINA

ENDOWED BY THE
DIALECTIC AND PHILANTHROPIC
SOCIETIES

NF 3/0/99

NF-1/21/89

T825
.B1
U5
1876

UNIVERSITY OF N.C. AT CHAPEL HILL
10001078539

This book is due at the LOUIS R. WILSON LIBRARY on the last date stamped under "Date Due." If not on hold it may be renewed by bringing it to the library.

DATE DUE	RET.	DATE DUE	RET.
Oct 25 1975	OCT 2 3 '75	JUL 1 9 2009	
MAY - 8 1976	APR 2 6		
MAY 4 1976	APR 1 1 '78	AUG 1 8 2009	
JUL 2 3	JAN 2 9 '81	DEC 1 1 2009	
AUG 1 0 1985			
DEC 10'86			
MAR 2 8 1989			
APR 4 '95			
APR 0 3 1995			
MAR 25 '95			
DEC 0 4 1997			
NOV 1 2 '97			
MAY 1 3 2009			

Digitized by the Internet Archive
in 2011 with funding from
University of North Carolina at Chapel Hill

http://www.archive.org/details/officialcatalogu00cent

"STAR" ALPACA BRAIDS.



S. B. & M. FLEISHER,

MANUFACTURERS, PHILADELPHIA.

WHY ARE THEY THE BEST?

ANSWER.

As a strong and conclusive evidence of the superior quality of the "STAR" ALPACA BRAIDS, is the preference that is given them over all competitive makes.

Having been subjected to rigid tests for the past ten years, and wherever introduced, they at once became the desired article.

They are made of the very best materials, with the greatest care and efficient workmanship, and upon the most improved machinery.

With these appliances, and a determination to go ahead, the manufacturers have made the "STAR" Alpaca Braids the most popular Braid of the country.

First Prize, Silver Medal, Franklin Institute, Philada., 1874.
First Prize, Silver Medal, Maryland Institute, Baltimore, 1874.
First Prize, Silver Medal, Industrial Exposition, Cinn., 1875.

For Sewing Machines and Hand Sewing

USE

STRONG, SMOOTH, AND ELASTIC.



SIX CORD in all Nos. from 8 to 100.

(WOUND ON WHITE SPOOLS.)

GEORGE A. CLARK, SOLE AGENT.

IT IS

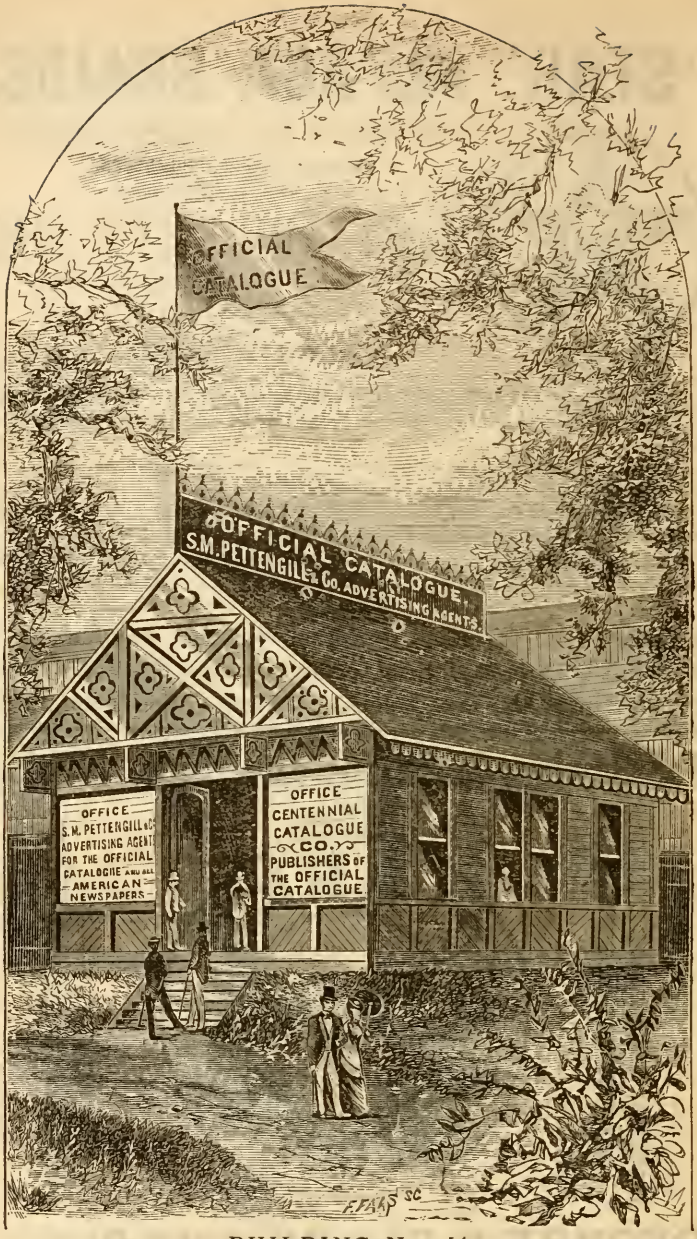
The Best and Most Popular Thread of the age.

GEORGE A. CLARK & BRO.,

SOLE AGENTS IN AMERICA,

Nos. 337 and 339 Canal Street, New York.

Sub-agency, 8 Strawberry St., Philadelphia.



BUILDING No. 41,

OCCUPIED JOINTLY BY THE

CENTENNIAL CATALOGUE COMPANY,

AND

S. M. Pettengill & Co., Newspaper Advertising Agents,

South of East End of Machinery Hall.

ADVERTISEMENTS taken at this office for the Official Catalogue and all newspapers of the United States and Canadas. The principal papers of the country kept on file for inspection and use of exhibitors and visitors generally.

CENTENNIAL CATALOGUE CO.

S. W. Cor. Fourth and Library Sts., Philadelphia,

PUBLISHERS OF THE

OFFICIAL CATALOGUE

OF THE

INTERNATIONAL EXHIBITION OF 1876.

This Company owns the exclusive right to publish, sell, and distribute the "*Official Catalogue of the International Exhibition of 1876*," the work being printed under the direction of, and compiled from manuscript furnished by, the "U. S. Centennial Commission."

Advertisements taken on application to S. M. PETTENGILL & Co. Advertising Agents.

JOHN S. MORTON,
President.

MORDECAI D. EVANS,
Treasurer.

L. L. HYNEMAN,
Secretary.

S. HENRY NORRIS,
Solicitor.

JOHN R. NAGLE,
Publishing and Advertising Manager,
524 Market St., Philadelphia.

S. M. PETTENGILL & CO.,
Advertising Agents,
No. 701 Chestnut Street, Philadelphia,
No. 37 Park Row, New York,
No. 10 State Street, Boston,
Exhibition Grounds—South of East end of Machinery Hall, Building No. 41.

J. M JOHNSON & SONS, Limited,
Sole European Agents,
No. 3 Castle St., Holborn, London.

DIRECTORS:

JOHN S. MORTON, WM. H. PENNELL,
M. ROSENBACH, STEPHEN F. WHITMAN,
GEORGE T. JONES, JOHN R. NAGLE,
JOSEPH HEILBRUN.

Office of the Company on Exhibition Grounds, Building No. 41, South of East end of Machinery Hall.



MAIN EXHIBITION BUILDING.

T845
.B1
JF
U5
1876

United States Centennial Commission.

INTERNATIONAL EXHIBITION.

1876

Official Catalogue.

COMPLETE IN ONE VOLUME.

I. MAIN BUILDING.
II. DEPARTMENT OF ART.
III. DEPARTMENT OF MACHINERY.
IV. DEPARTMENTS OF AGRICULTURE AND HORTICULTURE.

REVISED EDITION.

PHILADELPHIA:
Published for the Centennial Catalogue Company
By JOHN R. NAGLE AND COMPANY.
Printed at the Riverside Press, Cambridge, Mass.
1876.

Entered according to Act of Congress, in the year 1876, by the
UNITED STATES CENTENNIAL COMMISSION,
in the office of the Librarian of Congress, at Washington, D. C.
ALL RIGHTS RESERVED.
Centennial Catalogue Company Assignees of Copyright.

United States Centennial Commission.

INTERNATIONAL EXHIBITION.

1876

Official Catalogue.

PART I.

MAIN BUILDING AND ANNEXES.

DEPARTMENT I.—MINING AND METALLURGY.

DEPARTMENT II.—MANUFACTURES.

DEPARTMENT III.—EDUCATION AND SCIENCE.

REVISED EDITION.

PHILADELPHIA:

Published for the Centennial Catalogue Company

By JOHN R. NAGLE AND COMPANY.

Printed at the Riverside Press, Cambridge, Mass.

1876.

Entered according to Act of Congress, in the year 1876, by the
UNITED STATES CENTENNIAL COMMISSION,
in the office of the Librarian of Congress, at Washington, D. C.
ALL RIGHTS RESERVED.
Centennial Catalogue Company Assignees of Copyright.

CONTENTS.

Subject Index, National Exhibits 4

The International Exhibition of 1876 7

Synopsis of the Classification 8

United States Centennial Commission 9

Officers of the United States Centennial Commission 10

Centennial Board of Finance 10

State Boards of Centennial Managers 11

System of Awards 14

Judges of Awards 15

List of Buildings and Special Exhibits 20

The Main Exhibition Building 23

Key to the Notation 25

Ground Plan of the Main Exhibition Building 26

Classification 27

Catalogue of Department I., Mining and Metallurgy 47

Catalogue of Department II., Manufactures 101

Catalogue of Department III., Education and Science 321

Annex to Main Building 374

SUBJECT INDEX, NATIONAL EXHIBITS.

NATIONS.	DEPT. I. MINING AND METALLURGY.			DEPT. II. MANUFACTURES.												DEPT. III. EDUCATION AND SCIENCE.					DEPT. IV.	DEPT. V.	DEPT. VI.	DEPT. VII.
	Minerals, Ores, Stone, Mining Products.	Metallurgical Products.	Mining Engineering.	Chemical Manufactures.	Ceramics, Pottery, Porcelain, Glass, etc.	Furniture, etc.	Yarns and Woven Goods of Vegetable or Mineral Materials.	Woven and Felted Goods of Wool, etc.	Silk and Silk Fabrics.	Clothing, Jewelry, etc.	Paper, Blank Books, Stationery.	Weapons, etc.	Medicine, Surgery, Prothesis.	Hardware, Edge Tools, Cutlery, and Metallic Products.	Fabrics of Vegetable, Animal, or Mineral Materials.	Carriages, Vehicles, and Accessories.	Educational Systems, Methods, and Libraries.	Institutions and Organizations.	Scientific and Philosophical Instruments and Methods.	Engineering, Architecture, Maps, etc.	Physical, Social, and Moral Condition of Man.	Art.	Machinery.	Agriculture.	Horticulture.
United States	47	55	60	101	106	109	115	119	122	123	129	133	134	136	142	143	321	328	329	334	336	...	382	...	...
Great Britain	61	61	...	374	145	374	148	149	150	378	152	152	378	378	380	380	338	382	339	...	382	...	...	...	...
New Zealand	63	63	...	144	145	147	148	149	150	150	152	152	152	153	153	153	338	339	339	...	340	...	...	...	...
New South Wales	64	64	64	155	155	155	155	155	...	155	...	...	...	...	155	383	...	155	...	155	155	156	...	156	156
Victoria	65	65	65	157	157	157	157	157	...	157	157	...	157	...	157	157	157	340	340	340	340	157, 340	340	157	...
South Australia	166	...	...	160	160	160	160	161	161	161	161	161	161	161	161	161	340	341	341	341	341	161	162	162	165
Cape of Good Hope	169	169	...	166	...	...	166	...	...	166	...	167	...	167	...	...	167	...	...	167	...	167	...	167	...
Jamaica	...	...	...	169	...	169	169	...	...	169	...	169	169	...	169	...	169	...	...	169	...	170	...	170	...
Bahamas	66	...	...	171	...	...	171	...	...	171	172	...	172	172	172	172	...	...	...	...	...	...	...	172	...
Bermudas	66	...	...	173	...	173	...	...	...	173	...	...	...	...	173	...	...	...	...	...	...	...	...	173	...
British Guiana	...	...	...	...	...	174	...	...	...	174	...	...	174	...	...	...	...	...	...	174	174	174	174	174	174
Ceylon	176	...	...	...	...	...	...	...	...	175	...	...	175	...	...	...	...	...	...	...	...	...	...	175	...
Straits Settlements	...	...	...	...	...	...	...	...	...	176	...	...	...	...	176	...	176	...	...	...	...	176	...	176	...
Gold Coast	177	...	...	177	177	177	177	177	177	177	177	177	...	...	177	...	...	...	177	...	...	177	177	177	...
Mauritius	...	...	...	178	...	...	...	...	...	178	...	...	178	...	...	...	178	...	...	...	...	178	...	178	...
Queensland	67	67	67	179	179	...	...	...	179	...	...	...	179	179	...	179	179	...	179	...	...	179	179	179	180
Seychelles Archipelago	...	...	...	...	...	181	...	...	...	181	...	...	...	...	...	...	...	...	...	...	...	...	...	181	...
Tasmania	68	68	...	182	...	...	...	...	...	182	...	182	...	...	...	...	182	...	182	182	182	182	182	182	...
Trinidad	184	...	...	...	...	184	...	...	...	184	...	...	...	184	184	...	...	...	...	...	...	...	...	184	...

India	69	69	...	185	185	185	185	185	185	185	...	185	186	186	186	186	186	...	...	186	...	186	186	186	...
Canada	70	74	...	187	188	188	188	189	...	189	189	190	190	190	190	...	341	342	342	342	342	...	191	191	...
France	In Agricul.		Depart.	192	193	193	195	195	195	196	198	199	199	199	200	200	343	344	344	345	346	...	...	...	...
Germany	75	75	75	201	202	202	203	203	203	204	205	205	205	206	206	206	347	...	349	350	350	...	...	...	...
Austria	76	76	...	207	207	208	208	208	208	208	210	210	210	210	211	383	351	351	351	351	352	211	211	211	...
Switzerland	76	76	...	212	212	...	212	212	212	213	213	213	213	214	214	...	353	354	354	355	356	358	358	214	...
Belgium	77	77	...	215	215	216	216	216	217	217	217	218	218	218	218	...	359	359	359	359	360	...	...	218	...
Netherlands	77	...	...	220	220	220	220	220	220	220	221	221	221	221	221	...	360	360	361	361	361	...	361	...	...
Ditto. E. I. Colonies	221	221	...	221	221	221	221	...	...	221	...	222	222	222	222	...	...	...	...	...	...	222	...	222	222
Denmark	...	...	...	223	223	223	223	223	...	223	223	...	...	223	...	...	223	223	224	224	...	224	224	224	...
Sweden	78	78	...	225	225	225	226	226	226	226	227	227	227	228	...	...	362	363	363	363	363	...	...	...	...
Norway	80	80	...	229	229	229	229	229	...	229	230	230	230	230	230	230	364	...	364	364	364	...	...	...	...
Italy	81	81	...	231	232	233	233	233	233	234	234	235	235	235	235	235	365	365	365	365	365	235	...	...	...
Egypt	236	236	...	236	236	236	236	236	236	236	236	236	237	237	...	383 237	237	237	237	237	237	237	...	237	...
Tunis	239	...	...	239	239	239	...	239	239	239	...	239	...	...	...	...	239	...	...	239	...	...	239	...	...
Orange Free State	240	...	...	...	...	...	...	240	...	240	...	...	...	...	...	...	240	...	...	...	...	...	240	...	240	...
Luxemburg	...	...	...	...	240	...	...	...	...	240	...	...	...	...	...	...	...	...	...	...	...	...	...	...	240	...
China	241	241	...	241	241	241	241	241	241	242	242	...	242	242	242	...	...	...	242	...	242	242	...	242	...
Japan	244	...	...	244	244	245	245	...	246	246	247	247	247	...	247	...	247	...	248	...	248	248	...	...	...
Hawaii	250	...	...	250	...	250	250	...	...	250	...	...	...	...	250	250	250	250	...	251	251	251	251	251	...
Brazil	81	82	82	252	252	252	253	253	253	...	254	...	254	254	254	254	366	366	366	367	367	...	...	254	...
Argentine Republic	83	85	...	255	...	256	256	257	...	257	259	...	259	...	259	259	368	...	...	...	...	...	...	..	...
Chili	85	85	85	261	261	261	...	261	...	261	261	...	261	...	261	...	261	...	261	261	...	261	262	262	...
Peru	263	...	...	263	...	263	263	263	263	263	263	...	...	...	...	...	263	263	...	...	...	263	...	263	264
Mexico	86	86	...	265	265	265	...	265	265	265	266	...	266	...	266	...	266	266	267	...	...	267	267	267	269
Liberia*	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Spain†	87	92	92	270	272	272	273	273	275	276	277	278	278	279	...	279	...	...	...	...	...	279	...	...	...
Philippine Islands	93	93	...	280	...	...	280	...	281	181	...	282	...	...	...	282	...	...	...	...	...	...	...	...	...
Portugal	94	95	95	283	283	284	284	286	286	287	289	289	289	289	289	290	369	369	369	369	370	290 370	...	...	...
Turkey	96	97	...	291	292	292	293	295	297	299	304	304	304	305	305	305	371	...	371	...	371	...	...	...	314
Russia	98	98	99	315	315	315	316	316	317	317	318	319	319	319	320	320 383	372	...	372	373	373	371	...	...	...

* Entire Exhibit in Agricultural Hall.

† For Spanish Educational Exhibit see Part III., p. 132.

The International Exhibition of 1876.

The Congress of the United States, by an act approved March 3d, 1871, provided that the centennial anniversary of the promulgation of the Declaration of American Independence in Philadelphia should be celebrated in that city "by holding an International Exhibition of Arts, Manufactures, and Products of the Soil and Mine." The preparation of the Exhibition was, by the act, confided to the United States Centennial Commission, composed of a commissioner and alternate commissioner nominated by the governor of each State and Territory, and confirmed by the President of the United States. A subsequent act, approved June 1st, 1872, created the Centennial Board of Finance, charged with the financial conduct of the Exhibition.

A proclamation by the President of the United States, dated July 3d, 1873, announced the International Exhibition, and commended it to all nations. An act of Congress, approved June 5th, 1874, requested the President, in the name of the United States, to invite the governments of foreign nations to participate in the Exhibition. The invitation thus extended was accepted by the governments of

Argentine Republic,
Austria-Hungary,
Belgium,
Brazil,
Canada,
Chili,
China,
Denmark,
Egypt,
France, with Algeria,
Germany,
Great Britain, with colonies, viz.
Queensland,
New Zealand,
New South Wales,
Victoria,
South Australia,
India,
Cape of Good Hope,
Bahamas,
British Guiana,
Ceylon,
Straits Settlements,
Gold Coast,
Mauritius,
Seychelles Archipelago,
Tasmania,
Trinidad,
India,
Bermuda, and
Jamaica,
Hawaii,
Italy,
Japan,
Liberia,
Luxembourg,
Mexico,
Netherlands,
Norway,
Orange Free State,
Peru,
Philippine Islands,
Portugal,
Russia,
Spain,
Sweden,
Switzerland,
Tunis,
Turkey,
Venezuela.

The Centennial Commission provided for the classification of the objects to be exhibited in seven departments, which were referred to five exhibition buildings in this manner:

Department.	Buildings.	Acres covered.
I. Mining and Metallurgy,		
II. Manufactures,	Main Building,	21.47
III. Education and Science,		
IV. Art,	Art Gallery	1.5
V. Machinery,	Machinery Building,	14.
VI. Agriculture,	Agricultural Building,	10.
VII. Horticulture,	Horticultural Building,	1.5
Total,		48.47

The applications for exhibiting space, however, both at home and from abroad, so exceeded the calculations that had been made as to necessitate the erection of annexes supplementing the capacity of each of these buildings. Enumerations of these additional structures will be found on subsequent pages. The classes of objects grouped in the several departments are indicated in the following synopsis of the classification of the Exhibition.

SYNOPSIS OF THE CLASSIFICATION.

LOCATION.	DEPARTMENTS.	CLASSES.	GROUPS.
MAIN BUILDING.	I. MINING AND METALLURGY.	100—109	Minerals, Ores, Stone, Mining Products.
		110—119	Metallurgical Products.
		120—129	Mining Engineering.
	II. MANUFACTURES.	200—205	Chemical Manufactures.
		206—216	Ceramics, Pottery, Porcelain, Glass, etc.
		217—227	Furniture, etc.
		228—234	Yarns and Woven Goods of Vegetable or Mineral Materials.
		235—241	Woven and Felted Goods of Wool, etc.
		242—249	Silk and Silk Fabrics.
		250—257	Clothing, Jewelry, etc.
		258—264	Paper, Blank Books, Stationery.
		265—271	Weapons, etc.
		272—279	Medicine, Surgery, Prothesis.
		280—284	Hardware, Edge Tools, Cutlery, and Metallic Products.
		285—291	Fabrics of Vegetable, Animal, or Mineral Materials.
		292—296	Carriages, Vehicles, and Accessories.
	III. EDUCATION AND SCIENCE	300—309	Educational Systems, Methods, and Libraries.
		310—319	Institutions and Organizations.
		320—329	Scientific and Philosophical Instruments and Methods.
		330—339	Engineering, Architecture, Maps, etc.
		340—349	Physical, Social, and Moral Condition of Man.
ART GALLERY.	IV. ART.	400—409	Sculpture.
		410—419	Painting.
		420—429	Engraving and Lithography.
		430—439	Photography.
		440—449	Industrial and Architectural Designs, etc.
		450—459	Ceramic Decorations, Mosaics, etc.
MACHINERY BUILDING.	V. MACHINERY.	500—509	Machines, Tools, etc., of Mining, Chemistry, etc.
		510—519	Machines and Tools for working Metal, Wood, and Stone.
		520—529	Machines and Implements of Spinning, Weaving, etc.
		530—539	Machines, etc., used in Sewing, Making Clothing, etc.
		540—549	Machines for Printing, Making Books, Paper Working, etc.
		550—559	Motors, Power Generators, etc.
		560—569	Hydraulic and Pneumatic Apparatus.
		570—579	Railway Plant, Rolling Stock, etc.
		580—589	Machinery used in Preparing Agricultural Products.
		590—599	Aerial, Pneumatic, and Water Transportation.
			Machinery, and Apparatus, especially adapted to the requirements of the Exhibition.
AGRICULTURAL BUILDING.	VI. AGRICULTURE.	600—609	Arboriculture and Forest Products.
		610—619	Pomology.
		620—629	Agricultural Products.
		630—639	Land Animals.
		640—649	Marine Animals, Fish Culture, and Apparatus.
		650—662	Animal and Vegetable Products.
		665—669	Textile Substances of Vegetable or Animal origin.
		670—679	Machines, Implements, and Processes of Manufacture.
		680—689	Agricultural Engineering and Administration.
		690—699	Tillage and General Management.
HORTICULTURAL BUILDING.	VII. HORTICULTURE.	700—709	Ornamental Trees, Shrubs, and Flowers.
		710—719	Hot Houses, Conservatories, Graperies.
		720—729	Garden Tools, Accessories of Gardening.
		730—739	Garden Designing, Construction, and Management.

The full text of the classification of the several Departments will be found at the commencement of the enumeration of objects shown in each. The distribution of the departments and buildings through the four volumes of the catalogue, is as follows:

VOLUME I.—DEPARTMENT I. *Mining and Metallurgy;* II. *Manufactures;* III. *Education and Science.* Main Building and Annexes.

VOLUME II.—DEPARTMENT IV. *Art.* Memorial Hall and Annexes.

VOLUME III.—DEPARTMENT V. *Machinery.* Machinery Building and Annexes. Buildings of United States government and foreign governments, of State governments, and of individual exhibitors.

VOLUME IV.—DEPARTMENT VI. *Agriculture;* VII. *Horticulture.* Agricultural and Horticultural Buildings and Annexes, Alphabetical Index of Exhibitors, Commissioners, Judges, etc.

UNITED STATES CENTENNIAL COMMISSION.

STATES AND TERRITORIES.	COMMISSIONERS.	ALTERNATES.
Alabama,	Richard M. Nelson, Selma,	James L. Cooper, Huntsville.
Arizona,	Richard C. McCormick, Wash'n, D. C.,	John Wasson, Tucson.
Arkansas,	George W. Lawrence, Hot Springs,	G. C. Dodge, Little Rock.
California,	J. Dunbar Creigh, San Francisco,	Benjamin P. Kooser, Santa Cruz.
Colorado,	J. Marshall Paul, Fair Play,	N. C. Meeker, Greeley.
Connecticut,	Joseph R. Hawley, Hartford,	William P. Blake, New Haven.
Dakota,	J. A. Burbank, Bonhomme county,	Solomon L. Spink, Yankton.
Delaware,	John K. Kane, Wilmington,	John H. Rodney, New Castle
District of Col.,	James E. Dexter, Washington,	Lawrence A. Gobright, Washington.
Florida,	T. H. Osborn, Jacksonville,	J. T. Bernard, Tallahassee.
Georgia,	George Hillyer, Atlanta,	Richard Peters, jr., Atlanta.
Idaho,	Thomas Donaldson, Boise City,	Christopher W. Moore, Boise City.
Illinois,	F. L. Matthews, Carlinville,	Lawrence Weldon, Bloomington.
Indiana,	J. L. Campbell, Crawfordsville,	Franklin C. Johnson, New Albany.
Iowa,	Robert Lowry, Davenport,	Coker F. Clarkson, Eldora.
Kansas,	John A. Martin, Atchison,	George A. Crawford, Fort Scott.
Kentucky,	Robert Mallory, La Grange,	Smith M. Hobbs, Mount Wash'n.
Louisiana,	John Lynch, New Orleans,	Edward Penington, Philadelphia.
Maine,	Joshua Nye, Augusta,	Charles H. Haskell, Portland.
Maryland,	John H. B. Latrobe, Baltimore,	S. M. Shoemaker, Baltimore.
Massachusetts,	George B. Loring, Salem,	William B. Spooner, Boston.
Michigan,	James Birney, Bay City,	Claudius B. Grant, Houghton.
Minnesota,	J. Fletcher Williams, St. Paul,	W. W. Folwell, Minneapolis.
Mississippi,	O. C. French, Jackson,	M. Edwards, Gholson.
Missouri,	John McNeil, St. Louis,	Samuel Hays, St. Louis.
Montana,	J. P. Woolman, Helena,	Patrick A. Largey, Virginia City.
Nebraska,	Henry S. Moody, Omaha,	R. W. Furnas, Brownsville.
Nevada,	W. W. McCoy, Eureka,	James W. Haines, Genoa.
New Hampshire,	Ezekiel A. Straw, Manchester,	M. V. B. Edgerly, Manchester.
New Jersey,	Orestes Cleveland, Jersey City,	John G. Stevens, Trenton.
New Mexico,	Eldridge W. Little, Santa Fe,	Stephen B. Elkins, Washington, D.C.
New York,	N. M. Beckwith, New York,	C. P. Kimball, New York.
North Carolina,	Samuel F. Phillips, Washington City,	J. W. Albertson, Hertford.
Ohio,	Alfred T. Goshorn, Cincinnati,	Wilson W. Griffith, Toledo.
Oregon,	J. W. Virtue, Baker City,	A. J. Dufur, Portland.
Pennsylvania,	Daniel J. Morrell, Johnstown,	Asa Packer, Mauch Chunk.
Rhode Island,	George H. Corliss, Providence,	R. C. Taft, Providence.
South Carolina,	William Gurney, Charleston,	Archibald Cameron, Charleston.
Tennessee,	Thomas H. Coldwell, Shelbyville,	William F. Prosser, Nashville.
Texas,	W. H. Parsons, New York,	John C. Chew, New York.
Utah,	John H. Wickizer, Salt Lake City,	Wm. Haydon, Salt Lake City.
Vermont,	Middleton Goldsmith, Rutland,	Henry Chase, Lyndon.
Virginia,	F. W. M. Holliday, Richmond,	Edmund R. Bagwell, Onancock.
Washington Ter.,	Elwood Evans, Olympia,	Alex. S. Abernethy, Cowlitz county.
West Virginia,	Alexander R. Boteler, Shepherdstown,	Andrew J. Sweeney, Wheeling.
Wisconsin,	David Atwood, Madison,	Edward D. Holton, Milwaukee.
Wyoming,	Joseph M. Carey, Cheyenne,	Robert H. Lamborn, Philadelphia.

OFFICERS OF THE CENTENNIAL COMMISSION.

President:

JOSEPH R. HAWLEY.

Vice-Presidents:

THOMAS H. COLDWELL,
MIDDLETON GOLDSMITH,
W. W. MCCOY,
F. W. M. HOLLIDAY,
ROBERT MALLORY,
JOHN A. MARTIN.

Director-General:

ALFRED T. GOSHORN.

Secretary:

JOHN L. CAMPBELL.

Counsellor and Solicitor:

JOHN L. SHOEMAKER.

Executive Committee:

DANIEL J. MORRELL, Chairman.

ALFRED T. GOSHORN,
GEORGE H. CORLISS,
ALEXANDER R. BOTELER,
RICHARD C. MCCORMICK,
N. M. BECKWITH,
GEORGE B. LORING,
JOHN LYNCH,
CHARLES P. KIMBALL,
J. H. B. LATROBE,
DAVID ATWOOD,
SAMUEL F. PHILLIPS,
J. T. BERNARD.

J. R. HAWLEY, President, *ex-officio.*
MYER ASCH, Secretary.

Assistant Secretaries:

MYER ASCH, DORSEY GARDNER.

Chiefs of Bureaus of Administration:

Foreign—DIRECTOR-GENERAL and MYER ASCH.
Installation—HENRY PETTIT.
Transportation—DOLPHUS TORREY.
Machinery—JOHN S. ALBERT.
Agriculture—BURNET LANDRETH.
Horticulture—CHARLES H. MILLER.
Fine Arts—JOHN SARTAIN.
Medical—WILLIAM PEPPER, M.D.
Awards—FRANCIS A. WALKER.

CENTENNIAL BOARD OF FINANCE.

Directors:

JOHN WELSH, ... Philadelphia.
WILLIAM SELLERS, . . . Philadelphia.
JOHN S. BARBOUR, . . . Virginia.
SAMUEL M. FELTON, . . Philadelphia.
DANIEL M. FOX, ... Philadelphia.
THOMAS COCHRAN, . . . Philadelphia.
JOHN O. JAMES, ... Philadelphia.
AMOS R. LITTLE, . . Philadelphia.
WM. L. STRONG, . . . New York.
THOS. H. DUDLEY, . . New Jersey.
A. S. HEWITT, ... New York.
JOHN CUMMINGS, . . Massachusetts.

CLEMENT M. BIDDLE, . Philadelphia.
N. PARKER SHORTRIDGE, Philadelphia.
JAMES M. ROBB, ... Philadelphia.
EDWARD T. STEEL, . . Philadelphia.
JOHN WANAMAKER, . . Philadelphia.
JOHN PRICE WETHERILL, Philadelphia.
HENRY WINSOR, ... Philadelphia.
JOHN GORHAM, ... Rhode Island.
CHARLES W. COOPER, . Pennsylvania.
WILLIAM BIGLER, . . Pennsylvania.
ROBERT M. PATTON, . Alabama.
J. B. DRAKE, ... Illinois.
GEORGE BAIN, ... Missouri.

OFFICERS OF THE BOARD OF FINANCE.

President:

JOHN WELSH, Philadelphia.

Vice-Presidents:

WILLIAM SELLERS, Philadelphia. JOHN S. BARBOUR, Virginia.

Secretary and Treasurer:

FREDERICK FRALEY, Philadelphia.

Auditor:

HENRY S. LANSING.

STATE BOARDS OF CENTENNIAL MANAGERS.

[Appointed by the Governors for the management of State and Territorial exhibits.]

ALABAMA.

J. F. Milner, *President*, Montgomery.
Peter Hamilton, Mobile.
A. Cunningham, Talladega.
J. M. Kennedy, Esq., Tuscaloosa.
R. O. Pickett, Florence.

ARIZONA.

J. N. Hopkins, *Secretary*.
Wm. J. Osborne.
J. S. Vosburg.
John Wasson.

ARKANSAS.

H. L. Fletcher, *President*, Little Rock.
A. L. Breysacher, Little Rock.
L. H. Roots, Little Rock.
W. E. Woodruff, jr., Little Rock.
W. C. Stout, Lewisburg.
A. V. Linthicum, Helena.

CALIFORNIA.

Jacob Deeth.
R. B. Redding.
A. N. Towne.
T. J. L. Smiley.
Duny Malone.
Jacob R. Snyder.
John G. Downey.
James L. Ord.
Wm. Murray, Esq.
Jacob R. Neff.
B. M. Sergeant.
J. L. Hebron.
R. K. Porter.

COLORADO.

Geo. Q. Richmond, Pueblo.
Stephen Decatur, Georgetown, Colorado.

CONNECTICUT.

Charles R. Ingersoll, New Haven.
Nathaniel Wheeler, Bridgeport.
Frederick J. Kingsbury, Waterbury.
Ebenezer Learned, Norwich.
Thomas L. Marlor, Brooklyn.
Lyman W. Coe, Torington.
Burdell Loomis, Hartford.
John E. Earle, New Haven.
Thomas R. Pickering, Portland.

DAKOTA.

F. J. Dewitt, Yankton.
E. W. Miller, Union.
A. F. Shaw, Minnehaha.

W. J. L. Trail, Grand Forks.
W. A. Burleigh, Bon Homme.

DELAWARE.

Joseph P. Comegys, *President*, Dover.
Leander F. Riddle, *Secretary*, Wilmington.
Allen V. Lesley, New Castle.
Charles Beasten, New Castle.

John H. Bewley, Smyrna.
Henry B. Fiddeman, Milford.
John W. Causey, Milford.
Charles H. Richards, Georgetown.
Paynter Frame, Harbeson.

FLORIDA.

A. V. Conover, St. Augustine.
E. C. Howe, Key West.
George E. Wentworth, Pensacola.

D. S. Wilkens, Tallahassee.
W. S. Boyd, Jacksonville.

IDAHO.

Austin Savage, Boise City.
J. C. Isaacs, Boise City.
Cyrus Jacobs, Boise City.
A. Rossi, Boise City.
John Hailey, Boise City.
Lafayette Castre, Boise City.

Thomas Ranney, Boise City.
Y. E. Logan, Boise City.
M. J. Hill, Silver City.
B. Wilson, Idaho City.
John McNally, Rocky Bar.
L. P. Brown, Mount Idaho.

ILLINOIS.

John P. Reynolds, *President*, Chicago.
J. C. Smith, *Secretary*, Galena.
Carlile Mason, Chicago.

Francis Colton, Galesburg.
Amos C. Spafford, Rockford.

INDIANA.

A. L. Roache, *Chairman*, Indianapolis.
Thomas E. Garvin, Evansville.
John Sutherland, La Porte.

E. T. Cox, *Secretary*, Indianapolis.
John S. Williams, La Fayette.

IOWA.

Hon. S. Kirkwood, Des Moines.
Alex. Shaw, Des Moines.
Wm. Christy.

B. R. Sherman.
I. T. Young.

KANSAS.

George T. Anthony, *President*, Leavenworth.
W. S. Parkinson, *V.-President*, Ottawa.
Alfred Gray, *Secretary*, Topeka.
George W. Glick, *Treasurer*, Atchison.

T. C Henry, Abilene.
Charles F. Koester, Marysville.
E. P. Bancroft, Emporia.
W. E. Barnes, Vineland.
R. W. Wright, Oswego.

KENTUCKY.

W. B. Machen, Eddyville, Lyon Co.
Clinton Griffith, Owenstown, Daviess Co.
James H. Bowden, Russelville, Logan Co.
E. H. Hobson, Greensburg, Green Co.
E. D. Standiford, Louisville, Jefferson Co.

J. C. Hughes, Florence, Boone Co.
William Warfield, Lexington, Fayette Co.
Jennings Price, Lancaster.
John Dishman, Barbourville, Knox Co.
F. L. Cleveland, Augusta, Beachen Co.

LOUISIANA.

H. Bonzano, *President*, New Orleans.
E. C. Hancock, New Orleans.

Effingham Lawrence, New Orleans.

MAINE.

Charles W. Roberts, Bangor.
F. E. Shaw, Paris.
Edwin Sprague, Rockland.

W. H. Simpson, Belfast.
F. N. Dow, Portland.
E. Knight, Portland.

MARYLAND.

John G. Morris, Baltimore.
J. Thomas Scharf, Baltimore.
George A. Hanson, Baltimore.

Douglass H. Thomas, Baltimore.
William H. Corner, Baltimore.

MASSACHUSETTS.

J. T. Chadwick, Boston.
Curtis Guild, Boston.
Hiram Hosford, Lowell.
C. E. Whitier, Whitiersville.
George T. Plunkett, Hinsdale.
Henry M. Phillips, Springfield.
E. T. Miles, Fitchburg.
J. H. Claremont, Boston.
Lewis N. Gilbert, Ware.

John Savery, Wareham.
Wm. F. Whiting, Ashburnham.
Chester Snow, Harwick.
C. E. Yeomans, Westfield.
S. B. Phinney, Barnstable.
Daniel Needham, Groton.
H. G. Knight, Easthampton.
Harrison Tweed, Taunton.
E. W. Kinsley, Boston.

MICHIGAN.

John J. Bagley, Detroit.
Henry Fralick, Grand Rapids.
Jonathan J. Woodman, Paw Paw.

Merrill J. Mills, Detroit.
Jay A. Hubbell, Houghton.
F. W. Noble, *Secretary*, Detroit.

MINNESOTA.

Paris Gibson, Minneapolis.
Pennock Pusey, St. Paul.

Philip S. Harris, St. Paul.

MISSISSIPPI.

A. M. West, *President*, Holly Springs.
H. W. Warren, *Vice-President*, Jackson.
H. M. Street, *Treasurer*, Booneville.
A. E. Lewis, Scranton.
James A. Hoskins, Brookhaven.

Frank Burkitt, Houston.
J. L. Power, *Secretary*, Jackson.
J. B. Yellowley, Madison Station.
W. G. Paxton, Vicksburg.

MISSOURI.

Thomas Allen, *President*, St. Louis.
J. F. Cook, LL.D., Lagrange.
J. W. Harris, Rocheport.

J. W. Strong, *Vice-President*, St. Joseph.
P. Murphy, Goplin.
J. L. Tracy, St. Louis.

MONTANA.

T. C. Power, Fort Benton, Chateau.
Wm. Peck, Bannack, Beaverhead.
Armstrong, Glendale, Beaverhead.
Mrs. S. B. Bowen, Bozeman, Gallatin.

W. A. Clark, Deer Lodge, Deer Lodge.
D. J. Welch, Missoula, Missoula.
J. A. Harding, Radersburg, Jefferson.
T. E. Collins, Diamond, Meagher.

NEBRASKA.

Daniel H. Wheeler, Plattsmouth.
J. S. Morton, Nebraska City.
W. D. Scott, Rulo.

Gay C. Barton, North Platte.
Charles F. Manderson, Omaha.

NEVADA.

C. C. Stevenson, *President*, Gold Hill.
Thomas G. Taylor, Gold Hill.
R. Robinson, White Pine.
J. D. Sullivan, Eureka.
H. H. Day, Lincoln.
F. R. Hall, Nye.
A. A. Curtis, Lander.
John C. Fall, Humboldt.

H. M. Yerington, Ormsby.
H. T. Rice, Ormsby.
B. F. Leete, Washoe.
J. R. Johnson, Douglass.
Levi Wilsey, Elk.
Jeremiah Miller, Esmeralda.
B. P. Hazeltine.

NEW HAMPSHIRE.

James A. Weston, *Chairman*, Manchester.
Lewis W. Clark, Manchester.
Mason W. Tippan, Bradford.

Edward D. Baker, Claremont.
James F. Briggs, *Secretary*, Manchester.
George W. Riddle, Manchester.

NEW JERSEY.

Samuel C. Brown, *President*, Trenton.
Edward Bettle, Camden.
Henry L. Janeway, New Brunswick.
John T. Bird, Flemington.

Thomas H. Dale, Paterson.
Sanford B. Hunt, Newark.
Nathan W. Condict, Jersey City.
Patrick T. Quinn, *Secretary*, Newark.

NEW MEXICO.

Stephen B. Elkins, Washington, D. C.
W. F. M. Arny, *Secretary*, Fort Defiance.
Richard Hudson, Silver City.

W. G. Ritch, *President*, Santa Fé.
Thomas S. Tucker, *Treasurer*, Santa Fé.
José D. Sena, Santa Fé.

NEW YORK.

Alonzo B. Cornell, Ithaca, Tompkins Co.
John Murdock, Elmira, Chemung Co.
Jackson S. Schultz, No. 63 Cliff St., New York City.
Frank Leslie, No. 537 Pearl St., New York City.

Felix Campbell, No. 1315 Pacific St., Brooklyn.
H. Havermyer, New York.
Frederick A. Conkling.

OHIO.

R. P. Ranny, *President*, Cleveland.
Rutherford B. Hayes, Fremont.
E. F. Noyes, Cincinnati.
G. W. McCook, Steubenville.

Barnabas Burns, Mansfield.
F. F. Green, *Secretary* and *Superintendent*, Cleveland.

OREGON.

M. Wilkins, Willamette Forks.
C. P. Burkhardt, Albany.
E. R. Geary, Albany.
W. J. Halsey, Portland.

M. P. Deady, Portland.
Thomas Condon, Forest Grove.
S. G. Reed, Portland.

PENNSYLVANIA.

Morton McMichael, Philadelphia.
Andrew G. Curtin, Bellefonte.
John H. Shoenburger, Pittsburg.
George Scott, Catawissa.
Foster W. Mitchell, Franklin.

RHODE ISLAND.

John Gorham, Providence.
Hon. Henry Lippitt, Providence.
James Y. Smith, Providence.
William Goddard, Providence.
Rowland Hazard, Providence.
John R. Bartlett, Providence.

TENNESSEE.

J. M. Safford, Davidson Co.
C. C. Giers, Davidson Co.
J. T. Wilder, Hamilton Co.
Joseph Barbiere, Shelby.
George E. Purvis, Nashville.
S. B. Lowe, Chattanooga.

TEXAS.

J. E. Preston, Marlin.
E. L. Gregg, Rush.
S. J. Adams, Dallas.

UTAH.

Wm. Jennings, *President*, Salt Lake City.
Henry C. Goodspeed, *Secretary*, Salt Lake City.
John T. Caine, Salt Lake City.
Joseph R. Walker, Salt Lake City.
George S. Prescott, Salt Lake City.

VERMONT.

Joseph S. Patterson.
P. P. Pitkin.

VIRGINIA.

John D. Imboden, *President*, Richmond.
Marshall Parks, Norfolk.
Samuel J. Moffitt, Harrisonburg.
G. J. Wharton, Pulaski Co.
Edward M. Pace, Danville.

WASHINGTON TERRITORY.

James S. Lawson, Olympia.
Charles E. P. Wood, Port Discovery.
Edward S. Kearney, Walla Walla.
Henri M. Chase, Walla Walla.
Phillip Ritz, Walla Walla.

WEST VIRGINIA.

O. C. Dewey, Wheeling.
G. W. Franzheim, Wheeling.
C. N. Beall, Bethany.
Thomas Maslin, Moorsfield.
I. P. Hale, Charleston.

WISCONSIN.

J. B. Parkinson, *President*, Madison.
Eli Stilson, Oshkosh.
Adolph Meinecke, Milwaukee.
J. I. Case, Racine.
T. C. Pound, Chippewa Falls.
F. Kuehn, *Treasurer*, Manitowoc.
W. W. Field, *Secretary*, Madison.

WYOMING.

J. R. Whitehead, Cheyenne.
Stephen W. Downey, Laramie City.
James France, Rawlins.
John Fosher, South Pass City.
J. H. Pyachou, Laramie City.
J. A. Van Carter, Fort Bridger.

SYSTEM OF AWARDS.

THE Centennial Commission have substituted for the international juries employed at previous International Exhibitions, a system of awards which provided:

That awards shall be based upon written reports attested by the signatures of their authors.

That the judges should be selected for their known qualifications and character, and should be experts in the departments to which they are respectively assigned; the foreign members of this body being appointed by the Commission of each country and in conformity with the distribution and allotment to each; the judges from the United States by the Centennial Commission.

That judges should be reimbursed for their personal expenses.

That reports and awards should be based upon inherent and comparative merit; the elements of merit being held to include considerations relating to originality, invention, discovery, utility, quality, skill, workmanship, fitness for the purposes intended, adaptation to public wants, economy, and cost.

That each report should be delivered to the Centennial Commission as soon as completed, for final award and publication.

That awards should be finally decreed by the United States Centennial Commission, in compliance with the Act of Congress, and should consist of a diploma with a uniform Bronze Medal, and a special report of the judges on the subject of the Award.

That each exhibitor shall have the right to produce and publish the report awarded to him, but the United States Centennial Commission reserves the right to publish and dispose of all reports in the manner it thinks best for public information, and also to embody and distribute the reports as records of the Exhibition.

JUDGES OF AWARDS.

GROUP I.

Minerals, Mining, and Metallurgy, including the Machinery.—(Classes 100 to 108 of the classification. See page 27.)

Metals, Metallurgical Products and Processes.—(Classes 110 to 115.)

Machines, Tools, and Apparatus of Mining and Metallurgy.—(Classes 500 to 507, and 512.)

Mine Engineering—Models, Maps, and Sections.—(Classes 120, 121.)

AMERICAN.

Alexander L. Holley, 56 Broadway, N.Y.
Prof. T. Sterry Hunt, LL.D., F.R.S., St. James Hotel, Boston, Mass.
Prof. J. M. Safford, Nashville, Tennessee.
S. B. Axtell, Santa Fé, New Mexico.
John Fritz, Bethlehem, Pa.
Austin Savage, Boise City, Idaho.
W. S. Keyes, M. E., Eureka, Nevada.
Prof. Frederick Prime, jr., Easton, Pa.
Matthew Addy, Cincinnati, Ohio.
Prof. G. C. Broadhead, Pleasant Hill, Missouri.

FOREIGN.

Mr. Isaac Lowthian Bell, M.P., F.R.S., Great Britain.
Mr. Ernst F. Althans, Breslau, Germany.
Mr Louis Simonin, Paris, France.
Mr. F. Valton, France.
Mr. R. Akerman, Stockholm, Sweden.
Mr. Achille Jottrand, Belgium.
M. L. Nicholsky, Russia.
Mr. Nicholas Jossa, Russia.
Dr. Th. Kjerulf, Christiania, Norway.
Don Daniel de Cortazar, Spain.

GROUP II.

Pottery, Glass, Artificial Stone, etc.—(Classes 206 to 216, and 219, 103, 517, 518.)

AMERICAN.

Gen. Q. A. Gillmore, U. S. A., care D. Van Nostrand, New York.
Arthur Beckwith, 134 Fifth Avenue, New York.
Prof. E. T. Cox, Indianapolis, Indiana.
Gen. Hector Tyndale, Philadelphia, Pa.
Henry Wurtz, Hoboken, N. J.

FOREIGN.

R. H. Soden Smith, M.A., Great Britain.
Dr. G. Seelhorst, Nuremberg, Germany.
M. Ch. de Bussy, Paris, France.
Adolf E. Nordenskiold, Sweden.
Mr. K. Notomi, Japan.

GROUP III.

Chemistry and Pharmacy, including the Apparatus.—(Classes 200 to 203, and 274, 508, 509, and 659.)

AMERICAN.

Prof. C. A. Joy, Columbia College, New York.
Prof. F. A. Genth, University of Pennsylvania, Philadelphia, Pa.
Prof. J. Lawrence Smith, Louisville, Ky.
Prof. C. F. Chandler, Columbia College, New York.
Prof. J. W. Mallet, University of Virginia, Charlottesville, Virginia.

FOREIGN.

Dr. William Odling, F.R.S., Great Britain.
Dr. Rudolf von Wagner, Würzburg, Germany.
M. J. F. Kuhlmann Lille, France.
Mr. Prosper De Wilde, Belgium.
Mr Emanuel Paterno, Italy.

GROUP IV.

Animal and Vegetable Products, and the Machinery for their Preparation.—(Classes 650 to 661.)

AMERICAN.

Prof. W. C. Kerr, Raleigh, N. C.
L. B. Arnold, Rochester, N. Y.
Col. J. F. Tobias, 1705 Locust Street, Philadelphia, Pa.
Col. John Bradford, Tallahassee, Fla.
Guido Marx, Toledo, Ohio.
Ryland T. Brown, Indianapolis, Ind.
W. S. Green, Milford, Wis.

FOREIGN.

Mr. Edouard Martell, France.
Don Edward Loring, Malaga, Spain.
Dr. Nicolau J. Moreira, Brazil.
M. Jayme Batalha Reis, Portugal.
Mr. Ekeda Kenzo, Japan.
E. Oldendorff, Argentine Confederation.
Dr. E. H. Von Baumhauer, Netherlands.
H. G. Joly, M.P., Canada.
Julius Wegeler, Coblentz, Germany.
G. F. Secchi de Casali, Italy.
Prof. Thomas R. Segelche, Denmark.
Rustem Effendi, Turkey.

GROUP V.

Fish and Fish Products—Apparatus of Fishing, etc.—(Classes 640 to 648.)

AMERICAN.

Prof. S. F. Baird, Smithsonian Institution, Washington.
T. B. Ferguson, Baltimore, Md.

FOREIGN.

Joachim Anderssen, Norway.

GROUP VI.

Timber, Worked Lumber, Parts of Buildings, Forestry.—(Classes 600 to 607.)

AMERICAN.

Prof. Wm. H. Brewer, New Haven, Conn.
J. M. Bennett, Weston, Lewis Co., W. Va.
Prof. J. S. Newberry, Cleveland, Ohio, or Columbia College, N. Y.

FOREIGN.

John R. West, Chili.
M. Rodrigues de Vasconcellos, Portugal.
Hon. W. Skead, Canada.
Dr. José de Saldanha, Brazil.

GROUP VII.

Furniture, Upholstery, Wooden Ware, Baskets, etc.—(Classes 217, 220, 221, 225, 226, 286, 289, 290.)

AMERICAN.

Addison Boyden, Boston, Mass.
Chauncey Wiltse, Omaha, Neb.
Robert Mitchell, Cincinnati, O.

FOREIGN.

Le Marquis de Rochambeau, France.
Mr. Theo. Snyers, Belgium.
Francis Thonet, Austria.

GROUP VIII.

Cotton, Linen, and other Fabrics, including the Materials and the Machinery.—(Classes 228, 229 to 234, 521, 523, 524, 665, 666.)

AMERICAN.

Edward Atkinson, Boston, Mass.
Hugh Waddell, jr., Savannah, Ga.
Col. Ed. Richardson, Jackson, Miss.
A. D. Lockwood, Providence, R. I.
Chas. H. Wolff, Cincinnati, Ohio.
Samuel Webber, C. E., Manchester, N. H.
George O. Baker, Selma, Ala.

FOREIGN.

Mr. Isaac Watts, Great Britain.
Mr. W. W. Hulse, C.E., Great Britain.
Consul Gustav Gebhard, Germany.
Albert Daninos, Turkey.
Don Alvaro de la Gandara, Spain.
Major A. Goldy, Switzerland.
Prof. Gustave Herrmann, Germany.
Prof. Giuseppe Dassi, Italy.

GROUP IX.

Wool and Silk Fabrics, including the Materials and the Machinery. Woven and Felted Goods of Wool, and Mixtures of Wool.—(Classes 235 to 241, 522, and 667.)

Silk and Silk Fabrics, and Mixtures in which Silk is the Predominating Material.—(Classes 242 to 249 and 520.)

AMERICAN.

John L. Hayes, Cambridge, Mass.
Hon. Elliot C. Cowdin, New York.
Chas. Le Boutillier, Philadelphia, Pa.
Chas. J. Ellis, 714 Market St., Philadelphia, Pa.
J. D. Lang, Vassalboro', Me.

FOREIGN.

Mr. Henry Mitchell, Great Britain.
Dr. Max Weigert, Germany.
Mr. Chatel, France.
Carl Arnberg, Sweden.
Mr. Hayami Kenzo, Japan.
Mr. John G. Neeser, Switzerland.
August Behmer, Egypt.
Theodore Bochner, Austria.

GROUP X.

Clothing, Furs, India Rubber Goods, Ornaments, and Fancy Articles. (Exclusive of Leather Boots and Shoes.)—(Classes 250 to 257 and 288.)

Caoutchouc and Gutta Percha Industry.—(Class 285.)

AMERICAN.

Prof. W. H. Chandler, Ph.D., F.C.S., Lehigh University, Bethlehem, Pa.
Wm. O. Linthicum, New York City.
Benj. F. Britton, New York City.
Dr. George Hewston, San Francisco, Cal.
Prof. E. N. Horsford, Cambridge, Mass.

FOREIGN.

Mr. Dietz-Monnin, France.
Mr. Modest Kittary, Russia.
Mr. Edward Kanitz, Austria.
Mr. M. P. Empey, Canada.

GROUP XI.

Jewelry, Watches, Silverware, Bronzes, etc.—(Class 253.)

AMERICAN.

Martin P. Kennard, Boston, Mass.
Peter Gottesleben, Denver, Col.

FOREIGN.

G. H. Heap, Tunis.
M. Roulleaux du Gage, France.

GROUP XII.

Leather and Manufactures of Leather, including Boots, Shoes, Trunks, etc.—(Classes 532 and 533.)

AMERICAN.

Gov. F. H. Pierpont, Fairmount, Marion Co., W. Va.
John Cummings, Boston, Mass.
Thomas Miles, Philadelphia, Pa.
J. P. Postles, Wilmington, Del.

FOREIGN.

GROUP XIII.

Paper Industry, Stationery, Printing, and Book Making.—(Classes 258 to 264.)

Machines and Apparatus for Type Setting, Printing, Stamping, Embossing, and for making Books and Paper Working.—(Classes 525 and 540 to 547.)

AMERICAN.

James M. Willcox, Ph.D., Glen Mills, Pa., 1722 Spruce St., Phila.
C. O. Chapin, Springfield, Mass.
Wm. Faxon, Hartford, Conn.
Edward Conly, Cincinnati, Ohio.
H. T. Brian, Government Printing Office, Washington.

FOREIGN.

Sir Sidney H. Waterlow, Bart., M.P., Great Britain.
G. W. Seitz, Germany.

GROUP XIV.

Apparatus of Heating, Lighting, Ventilation, Water Supply, and Drainage.—(Classes 222 to 224.)

AMERICAN.

C. C. Cox, M.D., LL.D., Washington, D. C.
Azel Ames, jr., M.D., Wakefield, Mass.

FOREIGN.

GROUP XV.

Builders' Hardware, Edge Tools, Cutlery, etc.—(Classes 280 to 284.)

AMERICAN.

Charles Staples, Portland, Me.
Daniel Steinmetz, Philadelphia.
George L. Reed, Clearfield, Pa.
Gen John D. Imboden, Richmond, Va.

FOREIGN.

Hon. J. Bain, Lord Provost of Glasgow, Great Britain.
Mr. D. McHardy, Great Britain.
Mr. Diefenbach, Germany.

GROUP XVI.

Military and Sporting Arms, Weapons, Apparatus of Hunting, Explosives, etc.—(Classes 204, 205, and 265 to 270.)

AMERICAN.

Col. S. C. Lyford, U.S.A. (Chairman Government Board, etc).
Gen. H. L. Abbott, U.S.A., Willetts' Point, N. Y.
George A. Hamilton, St. Paul, Minn.

FOREIGN.

Major Wm. H. Noble, R.A., Great Britain.
Capt. Comm't of Artillerie Lesne, Belgium.
Capt. L. F. Saldanha da Gama, Brazil.

GROUP XVII.

Carriages, Vehicles, and Accessories.—(Classes 292 to 296.)

AMERICAN.	FOREIGN.
Thos. Goddard, Boston, Mass., 134 State St. B. F. Morse, Augusta, Me.	Mr. Guiet, France. Mr. Duffus, Canada.

GROUP XVIII.

Railway Plant, Rolling Stock, and Apparatus, Road Engines.—(Classes 570 to 577.)

AMERICAN.	FOREIGN.
Robert E. Ricker, Elizabeth, N. J. Gen. T. A. Morris, Indianapolis, Ind. Felician Slataper, Pittsburg, Pa.	Capt. Douglas Galton, R.E., C.B., F.R.S., Great Britain. Mr. Ernest Pontzen, Austria. Mr. E. E. A. Schaar, Belgium.

GROUP XIX.

Vessels and Articles of Transportation—(not included in other groups).—(Classes 287 to 544, and 590 to 597.)

AMERICAN.	FOREIGN.
Isaac Newton, New York. J. W. Griffith, Portsmouth, N. H. H. C. Goodspeed, Salt Lake City, Utah.	Col. F. H. Rich, R.E., Great Britain.

GROUP XX.

Motors, Hydraulic and Pneumatic Apparatus, etc.—(Classes 550 to 555, and 560 to 568.)

AMERICAN.	FOREIGN.
C. T. Porter, Newark, N. J. Joseph Belknap, New York. James Moore, Philadelphia. Horatio Allen, South Orange—"Homewood," N. J. Chas. E. Emery, 7 Warren Street, New York.	Mr. W. H. Barlow, C.E., Great Britain. Prof. Reuleaux, Germany. Nicholas Petroff, Russia. Emil Brugsch, Egypt.

GROUP XXI.

Machine Tools—Wood, Metal, and Stone.—(Classes 510, 511, and 514 to 516.)

AMERICAN.	FOREIGN.
Irving M. Scott, Union Iron Works, San Francisco, Cal. George H. Blelock, Springfield, Mass. W. F. Durfee, Wisconsin (at 56 Broadway, New York). Prof. John A. Anderson, President Kansas State Agricultural College, Manhattan, Kan.	Mr. John Anderson, LL.D., C.E., Great Britain. M. Le Commandant F. Perier, France. Mr. C. A. Angstrom, Sweden. Mr. Auguste Gobert (fils), Belgium. Mr. Felix Reifer, Austria.

GROUP XXII.

Machines, Apparatus, and Implements used in Sewing and Making Clothing, Lace, Ornamental Objects, Pins, etc.—(Classes 530, 531, and 534 to 537.)

AMERICAN.	FOREIGN.
George W. Gregory, Boston, Mass. Edward H. Knight, Patent Office, Washington, D. C. L. D. F. Poore, Springfield, Dakota.	Mr. Fred. A. Paget, C.E., Great Britain.

GROUP XXIII.

Agricultural Machines, Implements of Agriculture, Horticulture, and Gardening.—(Classes 670 to 675, and 680 to 683.)

Tillage and General Management.—(Classes 690 to 692, and 715, 716.)

Garden Tools, Accessories of Gardening.—(Classes 720 to 722.)

Garden Designing, Construction, and Management.—(Classes 710, and 731 to 733.)

AMERICAN.	FOREIGN.
Hon. John P. Reynolds, Chicago, Ill. James S. Grinnell, Washington, D. C. Geo. E. Waring, jr., Newport, R. I. James Bruce, Corvallas, Oregon.	Mr. John Coleman, Great Britain. Dr. Jose de Saldanha, Brazil. Don Fermin Rosillo, Spain.

GROUP XXIV.

Instruments and Apparatus of Hygiene, Medicine, Surgery, Prothesis, etc.—(Classes 272, 273, and 275 to 278.)

AMERICAN.	FOREIGN.
C. B. White, M.D., New Orleans, La. J. H. Thompson, A.M., M.D., Washington, D. C.	Dr. William Roth, Germany. Dr. Ernst Fleischel, Austria.

GROUP XXV.

Instruments of Precision, Research, Experiment, and Illustration, including Telegraphy and Music.—(Classes 320 to 327.)

AMERICAN.

Prof. Joseph Henry, LL.D., Secretary of Smithsonian Institution, Washington, D. C.
Prof. F. A. P. Barnard, S.T.D., LL.D., Columbia College, N. Y.
Prof. J. E. Hilgard, Washington, D. C.
Prof. J. C. Watson, Ann Arbor, Mich.
General Henry K. Oliver, Salem, Mass.
Geo. F. Bristow, New York.

FOREIGN.

Sir William Thomson, LL.D., D.C.L., F.R.S., Great Britain.
Jul. Schiedmayer, Germany.
Mr. E. Levasseur, France.
P. F. Kupka, Austria.
Edw. Favre Perret, Switzerland.

GROUP XXVI.

Architecture and Engineering. (For Agricultural Engineering, see Class 680.) (For Mine Engineering, see Group I.) Architecture.—(Classes 341, 342.)

Engineering.—(Classes 330 to 333, and 335.)

AMERICAN.

James B. Eads, C.E., South Pass Jetty Works, 122 Common Street, New Orleans, La.
General Wm. B. Franklin, Hartford, Conn.
Richard M. Hunt, 49 West Thirty-fifth Street, New York.

FOREIGN.

Sir John Hawkshaw, C.E., F.R.S., Great Britain.
Mr. Lavoinne, France.
J. M. da Silva Continho, Brazil.
J. G. W. Fynje, Netherlands.
Lourenço Maheiro, M.E., Portugal.

GROUP XXVII.

Plastic and Graphic Art Sculpture.—(Classes 400 to 405.)

Painting.—(Classes 410 to 413.)

Engraving and Lithography.—(Classes 420 to 424.)

Photography.—(Classes 430 to 432.)

Industrial and Architectural Designs, Models, and Decorations.—(Classes 440 to 443.) (Classes 450 to 454.)

Decoration with Ceramic and Vitreous Materials; Mosaic and Inlaid Work.

AMERICAN.

Frank Hill Smith, Boston, Mass.
James L. Claghorn, Philadelphia, Pa.
Prof. S. F. Weir, New Haven, Conn.
Donald G. Mitchell, New Haven, Conn.
Geo. Ward Nichols, Cincinnati, Ohio.
Prof. Henry Draper, Medical College, New York City.

FOREIGN.

Mr. Charles West Cope, R.A., Great Britain.
Mr. Peter Graham, Great Britain.
Carl Schlesinger, Germany.
Dr. H. Vogel, Germany.
Mr. Emile T. Saintain, France.
Fritz L. Dardel, Sweden.
P. N. Arbo, Norway.
Count of Donadis, Spain.
Mr. Tantardini, Italy.
Guglielmo de Sanctis, Italy.
Mr. Carl Costenoble, Austria.
Prof. V. Dahlerup, Denmark.
J. E. van Heemskerck van Beest, Netherlands.

GROUP XXVIII.

Educational Systems, Methods, and Libraries.—(Classes 300 to 306.)

Institutions and Organizations.—(Classes 310 to 313.)

AMERICAN.

Hon. Andrew D. White, LL.D., President of Cornell University, Ithaca, N.Y.
D. C. Gilman, LL.D., President of St. John's Hopkins University, Baltimore, Md.
Hon. J. M. Gregory, LL.D., Pres. Illinois Industrial Union, Champaign, Ill.
Hon. J. W. Hoyt, M.D., LL.D., Madison, Wis.

FOREIGN.

Sir Charles Reed, Great Britain.
Mr. Rêne Fouret, France.
Col. John Marin, Spain.
Prof. Dr. Otto Martin Torell, Sweden.

BUILDINGS AND SPECIAL EXHIBITS WITHIN THE EXHIBITION GROUNDS.

[NOTE.—The buildings bear the numbers prefixed to them in this table, being the numbers adopted by the Centennial Guide Book Co. (Limited).]

Buildings South of the Avenue of the Republic.

No.		Part	Page
1.	Main Exhibition Building,	I.	23
2.	Machinery Hall,	III.	9
3.	Machine Shop,	III.	117
4.	American Boiler House,	III.	117
5.	Corliss Boiler House,	III.	117
6.	British Boiler House,	III.	117
7.	Shoe and Leather Exhibition Building,	III.	105
8.	Office Centennial Board of Finance,	III.	117
9.	Office U. S. Centennial Commission,	III.	117
10.	Centennial National Bank,	III.	117
11.	Weimer Machine Works,	III.	118
12.	Bartholdi Fountain	III.	146
13.	Catholic Total Abstinence Union Fountain,	III.	146
14.	Fuller, Warren, & Co., Heating Apparatus,	III.	118
15.	Gillender & Sons, Glassware Manufactory,	III.	118
16.	Camp of West Point Cadets,	III.	118
17.	Iron Pipe,	III.	118
18.	Liberty Stove Works,	III.	118
19.	Annex, Saw Mill,	III.	119
20.	Boiler House,	III.	119
21.	Railway Engine House,	III.	119
22.	St. Cecilia Organs,	III.	119
23.	Automatic Railway,	III.	119
24.	Monument—American Soldier,	III.	119
25.	Gunpowder Pile-Driver,	III.	119
26.	Jesse Star & Son, Iron Works,	III.	119
27.	West End Railway Offices,	III.	119
28.	Pneumatic Tubes,	III.	119
29.	New England Granite Co.'s Exhibit,	III.	120
30.	Railroad Crossings,	III.	120
31.	State of Nevada Quartz Mill,	III.	120
32.	Store House,	III.	120
33.	Friction Drum,	III.	120
34.	Stokes & Parrish, U.S. Hoisting Machine,	III.	120
35.	Chilean Amalgamating Machinery,	III.	120
36.	Campbell Printing Press,	III.	120
37.	Old Locomotive and Car,	III.	121
38.	Car House,	III.	121
39.	Police Station,	III.	121
40.	Averill Paint Co.,	III.	121
41.	Centennial Catalogue Co.,	III.	121
42.	Stokes & Parrish, Boiler House,	III.	121
43.	Ehret's Waterproof Roofing,	III.	121
44.	Tombstones,	III.	122
45.	Terra Cotta Pipe,	III.	122
46.	Mineral Annex, 1 and 2,	III.	122
47.	Fireproof Ventilated Buildings,	III.	122
48.	Swings,	III.	122
49.	Ornamental Stone Work,	III.	122

Buildings North of the Avenue of the Republic, and West of Belmont Av.

No.		Part	Page
51.	United States Government Building,	III.	73
51½.	Bartholdi Electric Light,	III.	122
52.	United States Hospital,	III.	73
52½.	Howe Monument,	III.	122
53.	United States Hospital Tent,	III.	73
53½.	Jerusalem Bazaar,	III.	122
54.	United States Laboratory,	III.	73
54½.	Office Philadelphia "Times,"	III.	123
55.	Pennsylvania State Building,	III.	123
55½.	Hungarian Wine Pavilion,	III.	123
56.	Ohio State Building,	III.	123
56½.	Police Station,	III.	124
57.	Indiana State Building,	III.	124
57½.	Sponge Fishers of Turkey,	III.	124
58.	Illinois State Building,	III.	124
58½.	Bethlehem Bazaar,	III.	124
59.	Wisconsin State Building,	III.	124
59½.	Fog Horn and Bell,	III.	124
60.	Michigan State Building,	III.	124
61.	New Hampshire State Building,	III.	125
62.	Connecticut State Building,	III.	125
63.	Massachusetts State Building,	III.	125
64.	Delaware State Building,	III.	125
65.	Maryland State Building,	III.	125
66.	Arkansas State Building,	III.	125
67.	Japanese Dwelling,	III.	125
68.	West Virginia State Building,	III.	125
69.	Canadian Log House,	IV.	134
70.	Missouri State Building,	III.	130
71.	British Government Building,	III.	130
72.	British Government Building,	III.	130
73.	British Government Building,	III.	130
74.	New York State Building,	III.	130
75.	Lièvard's Relief Plans, Paris, Jerusalem, Italy, etc.,	III.	130
76.	Pop-corn Stand,	III.	131
77.	Cigar Stand,	III.	131
78.	Soda Water Stand,	III.	131
79.	Tunisian Café and Bazaar,	III.	131
80.	Columbus Monument,	III.	131
81.	Drinking Fountains,	III.	131
82.	Restaurant "Trois Frères Provençaux,"	III.	131
83.	Office New York "Tribune,"	III.	131
84.	World's Ticket Office, Cook, Son, & Jenkins,	III.	131
85.	Loiseau's Pressed Fuel Company,	III.	132
86.	Spanish Government Buildings,	III.	132
87.	United States Signal Office,	III.	141
88.	Tennessee State Building,	III.	141
89.	Mississippi State Building,	III.	142
90.	George's Hill Restaurant,	III.	142
91.	Bishop Allen Monument,	III.	142

BUILDINGS AND SPECIAL EXHIBITS WITHIN THE EXHIBITION GROUNDS.

[NOTE.—Descriptions of the Buildings will be found at the indicated part and page of the Official Catalogue.]

Buildings North of the Avenue of the Republic, and West of Belmont Av.

No.		Part	Page
92.	Office of the Boston "Advertiser" and Boston "Herald,"	III.	142
93.	Rowell's Newspaper Exhibition Building,	III.	142
94.	California State Building,	III.	142
95.	Centennial Fire Patrol, No. 1,	III.	142
96.	Turkish Café,	III.	143
97.	Office Frank Leslie's Publications,	III.	143
98.	Iowa State Building,	III.	143
99.	Rhode Island State Building,	III.	143
100.	Vermont State Building,	III.	143

Buildings East of Belmont Avenue, and South of Fountain Avenue.

101.	Art Gallery,	II	9
102.	Art Gallery Annex,	II.	10
103.	B'nai B'rith Monument of Religious Liberty,	III.	143
104.	Photographic Art Building,	II.	137
105.	Vienna Bakery and Coffee House,	III.	143
106.	Principal Annex to Main Exhibition Building,	I.	374
107.	Swedish Government Building,	III.	144
108.	Japanese Bazaar,	III.	144
109.	The Judges' Hall,	III.	144
110.	Centennial Photographic Co.,	III.	144
111.	Sheet-metal Pavilion,	III.	144
112.	German Government Building,	III.	144
113.	Railroad Ticket Office,	III.	144
114.	Office United States Centennial Commission,	III.	145
115.	Brazilian Government Build'g,	III.	145
116.	The Dairy,	III.	145
117.	Restaurant "La Fayette,"	III.	145
118.	House of Public Comfort,	III.	145
119.	Empire Transportation Co.,	III.	145
120.	French Government Building,	III.	145
121.	Centennial Fire Patrol, No. 2,	III.	145
122.	Penn'a Educational Building,	III	146
123.	Telegraph Office,	III.	147
124.	American Fusee Company,	III.	147
125.	Klautscheck, Thomas, & Stewart's Glass Magazine,	III.	147
126.	Moorish Villa,	III.	147
127.	American Bible Society,	III.	147
128.	Hunter's Camp,	III.	147
129.	Office Water Department,	III.	148
130.	Soda Water Stands,	III.	148
131.	Cigar Stands,	III.	148
132.	Singer's Sewing Machines,	III.	148
133.	Centennial Medical Departm't,	III.	148
134.	Portugal Government Building,	III.	148
135.	Bankers' Building,	III.	148
136.	French Glass Exhibit,	III.	149
137.	Kindergarten,	III.	149
138.	Centennial Police Station,	III.	149
139.	Philadelphia City Building,	III.	149
140.	Music Pavilion,	III.	149
141.	Burial Caskets,	III.	149
142.	Perforated Metal Building,	III.	149
143.	Rubber Roofing,	III.	149
144.	Cuban Acclimation Office,	III.	149
145.	Naval Group,	III.	149
146.	The Dying Lioness,	III.	149

Buildings East of Belmont Avenue, and North of Fountain Avenue.

151.	Horticultural Hall,	IV.	147
152.	Agricultural Hall,	IV.	9
153.	The Women's Pavilion,	III.	85
154.	The Women's School House,	III.	150
155.	New Jersey State Building,	III.	150
156.	Restaurant of the South,	III.	150
157.	Kansas and Colorado State Building,	III.	150
158.	New England Farmer's Home 100 years ago, and Modern Kitchen,	III.	150
159.	Great American Restaurant,	III.	150
160.	German Restaurant,	III.	151
161.	Tea and Coffee Press,	III.	151
162.	Butter and Cheese Factory,	III.	151
163.	Soda Water Stand,	III.	151
164.	Cigar Stand,	III.	151
165.	Farm Wagon Building,	IV.	135
166.	Pomological Building,	IV.	135
167.	Brewers' Building,	IV.	136
168.	Model House Apiary,	IV.	140
169.	Guano Company,	III.	151
170.	Special Flower Exhibit Building,	III.	170
171.	Wind Mills,	IV.	140
172.	Office "Ohio Farmer,"	IV.	140
173.	Hay Press,	III.	152
174.	Police Station,	III.	152
175.	Elevated Railroad,	III.	152
176.	Boiler House,	III.	152
177.	Virginia State Building,	III.	152
178.	Protective Fire Apparatus,	III.	152
179.	Pop-corn Stands,	III.	152
180.	J. L. Mott Co. Fountain,	III.	152

No. 1. THE MAIN EXHIBITION BUILDING.

Size, 1880 by 464 feet.

Engineers and Architects, HENRY PETTIT & JOS. M. WILSON.

Contractor, R. J. DOBBINS.

Wrought and Cast Iron Manufactured by WM. SELLERS & CO., *Moor Iron Works.*

Wrought Iron Furnished by A. & P. ROBERTS, *Pencoyd Rolling Mills.*

Cast Iron Furnished by MORRIS, TASKER, & CO., *Pascal Iron Works.*

Erector of Iron Work, WATSON MANUFACTURING CO.

THE Main Exhibition Building, containing Departments I, II, III of the Exhibition, is in the form of a parallelogram, extending east and west 1880 feet in length, and north and south 464 feet in width.

The larger portion of the structure is one story in height, and shows the main cornice upon the outside at 45 feet above the ground; the interior height being 70 feet. At the centre of the longer sides are projections 416 feet in length, and in the centre of the shorter sides or ends of the building are projections 216 feet in length. In these projections, in the centre of the four sides, are located the main entrances, which are provided with arcades upon the ground floor, and central facades extending to the height of 90 feet.

The East Entrance forms the principal approach for carriages, visitors being allowed to alight at the doors of the building under cover of the arcade. The South Entrance is the principal approach from street cars, the ticket offices being located upon the line of Elm Avenue, with covered ways provided for entrance into the building itself. The Main Portal on the north side communicates with the Art Gallery, and the Main Portal on the west side gives the main passage way to the Machinery and Agricultural Halls.

Upon the corners of the building there are four towers, 75 feet in height, and between the towers and the central projections or entrances there is a lower roof introduced, showing a cornice at 24 feet above the ground. In order to obtain a central feature for the building as a whole, the roof over the central part, for 184 feet square, has been raised above the surrounding portion, and four towers, 48 feet square, rising to 120 feet in height, have been introduced at the corners of the elevated roof.

The areas covered are as follows:

	SQUARE FEET.	ACRES.
Ground floor,	872,320	20.02
Upper floors in projections,	37,344	.85
" " in towers,	26,344	.60
	936,008	21.47

The general arrangement of the ground plan shows a central avenue or nave 120 feet in width, and extending 1832 feet in length. This is the longest avenue of that width ever introduced into an exhibition building. On either side of this nave there is an avenue 100 feet by 1832 feet in length. Between the nave and side avenues are aisles 48 feet wide, and on the outer sides of the building smaller aisles 24 feet in width. In order to break the great length of the roof lines, three cross avenues or transepts have been introduced of the same widths and in the same relative positions to each other as the nave and avenues running lengthwise, viz.: a central transept 120 feet in width by 416 feet in length, with one on either side of 100 feet by 416 feet, and aisles between of 48 feet. The intersections of these avenues and transepts in the central portion of the building result in dividing the ground floor into nine open spaces, free from supporting columns, and covering in the aggregate an area of 416 feet square. Four of these spaces are 100 feet square, four 100 feet by 120 feet, and the central space or pavilion 120 feet square. The intersections of the 48 feet aisles produce four interior courts 48 feet square, one at each corner of the central space. The main promenades through the nave and central transept are each 30 feet in width, and those through the centre of the side avenues and transepts 15 feet each. All other walks are 10 feet wide, and lead at either end to exit doors.

The following table gives the principal dimensions of the different parts of the building:

DIMENSIONS.

Measurements taken from centre to centre of supporting columns.

Length of building,	1880 feet
Width of building,	464 "

CENTRAL AVENUE OR NAVE.	
Length,	1832 feet.
Width,	120 "
Height to top of supporting columns,	45 "
Height to ridge of roof,	70 "
CENTRAL TRANSEPT.	
Length,	416 "
Width,	120 "
Height to top of columns,	45 "
Height to ridge of roof,	70 "
SIDE AVENUES.	
Length,	1832 "
Width,	100 "
Height to top of columns,	45 "
Height to ridge of roof,	65 "
SIDE TRANSEPTS.	
Length,	416 "
Width,	100 "
Height to top of columns,	45 "
Height to ridge of roof,	65 "
CENTRAL AISLES.	
Length at east end,	744 feet.
" at west end,	672 "
Width,	48 "
Height to roof,	30 "
SIDE AISLES.	
Length at east end,	744 "
" at west end,	672 "
Width,	24 "
Height to roof,	24 "
CENTRE SPACE OR PAVILION.	
Ground plan,	120 ft. sq.
Height to top of supporting columns,	72 "
Height to ridge of roof,	96 "
TOWERS OVER COURTS.	
Ground plan,	48 "
Height to roof,	120 "
CORNER TOWERS.	
Ground plan,	24 "
Height to roof,	75 "

The foundations consist of piers of masonry. The superstructure is composed of wrought iron columns, which support wrought iron roof trusses. These columns are composed of rolled channel bars, with plates riveted to the flanges. Lengthwise of the building the columns are spaced at the uniform distance apart of 24 feet. In the entire structure there are 672 columns, the shortest being 23 feet and the longest 125 feet in length. Their aggregate weight is 2,200,000 pounds. The roof trusses

are similar in form to those in general use for depots and warehouses, and consist of straight rafters with struts and tie-bars. The aggregate weight of iron in the roof trusses and girders is 5,000,000 pounds. This building being a temporary construction, the columns and trusses are so designed that they may be easily taken down and erected again at another site.

The sides of the building, for the height of seven feet from the ground, are finished with brickwork in panels between the columns; above the seven feet, with glazed sash. Portions of the sash are movable for ventilation. The roof covering is of tin upon sheathing boards. The ground flooring is of plank upon sills resting upon the ground, with no open space underneath.

The building stands nearly due east and west, and is lighted almost entirely by side light from the north and south sides. Louvre ventilators are introduced over the central nave and each of the avenues. Skylights are introduced over the central aisles.

Small balconies, or galleries of observation, have been provided in the four central towers of the building at the heights of the different stories.

A complete system of water supply, with ample provision of fire cocks, etc., is provided for protection against fire, and for sanitary purposes.

Offices for foreign commissions are placed along the sides of the building, in the side aisles, in proximity to the products exhibited.

The ground was graded and foundation laid for this building in the autumn of 1874. The erection of iron work at the site commenced on May 8th, 1875; the erection of the iron work was finished December 2d, 1875; and the building was accepted from the contractor February 14th, 1876. The cost of the building was $1,580,000.

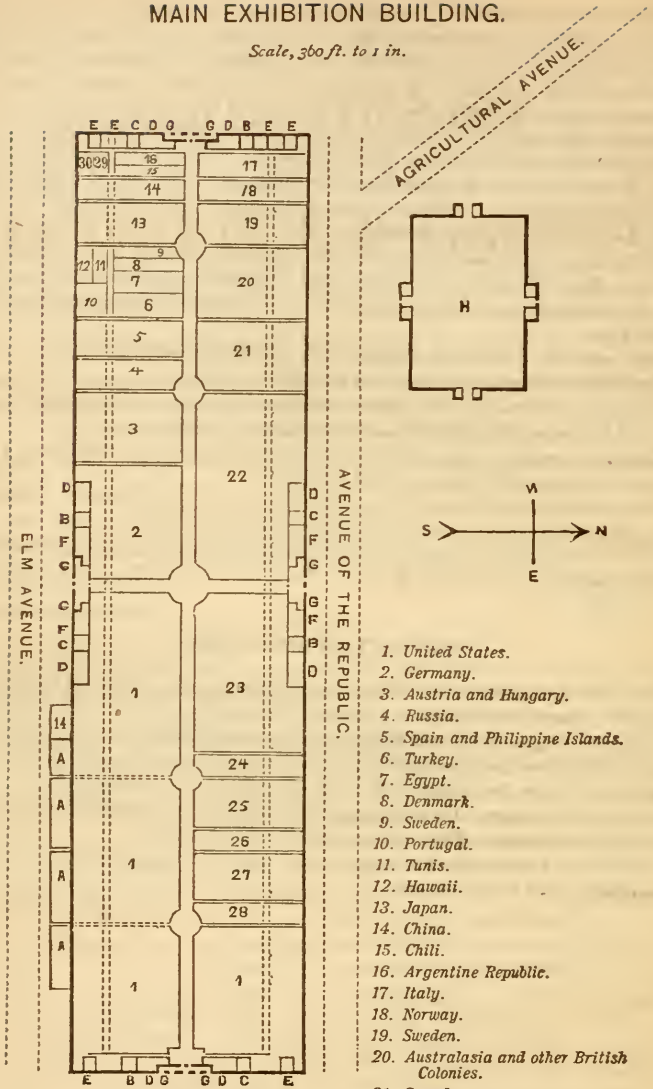
KEY TO THE NOTATION.

THE location of objects in the Main Building is shown by a letter and figure, indicating the nearest column of the building. The letters—A, B, C, to U—designate the successive ranges of columns, proceeding southward from the northern wall across the width of the building; the figures, the number of the column in each range, counting eastwardly from the western wall, the entire length of the building, from 1 to 79. Thus C 5 is the column in the third range from the north, and the fifth from the western end of the building. The southeasternmost column is U 79.

The class of the classification to which each exhibit belongs is indicated by the small figures at the end of the line.

MAIN EXHIBITION BUILDING.

Scale, 360 ft. to 1 in.



CARRIAGE CONCOURSE.

- A *Mineral Annex.*
- B *Ladies' Room.*
- C *Gentlemen's Room.*
- D *Water-closets.*
- E *Offices.*
- F *Restaurants.*
- G *Stairway to Galleries.*
- H *Carriage Annex.*

1. *United States.*
2. *Germany.*
3. *Austria and Hungary.*
4. *Russia.*
5. *Spain and Philippine Islands.*
6. *Turkey.*
7. *Egypt.*
8. *Denmark.*
9. *Sweden.*
10. *Portugal.*
11. *Tunis.*
12. *Hawaii.*
13. *Japan.*
14. *China.*
15. *Chili.*
16. *Argentine Republic.*
17. *Italy.*
18. *Norway.*
19. *Sweden.*
20. *Australasia and other British Colonies.*
21. *Canada.*
22. *Great Britain and India.*
23. *France and Colonies.*
24. *Switzerland.*
25. *Belgium.*
26. *Brazil.*
27. *Netherlands.*
28. *Mexico.*
29. *Peru.*
30. *Orange Free State.*

Total Length, 1380 ft. *Width, 464 ft.* *Height, 70 ft.*

CLASSIFICATION.

DEPARTMENT I.—MINING AND METALLURGY.

MINERALS, ORES, STONE, MINING PRODUCTS.

CLASS 100.—Minerals, ores, etc. Metallic and non-metallic minerals, exclusive of coal and oil. Collections of minerals systematically arranged; collections of ores and associated minerals; geological collections.

CLASS 101.—Mineral combustibles. Coal, anthracite, semi-bituminous, and bituminous, coal-waste and pressed coal; albertite, asphalt, and asphaltic limestone; bitumen, mineral tar, crude petroleum.

CLASS 102.—Building stones, marbles, slates, etc. Rough, hewn, sawn, or polished, for buildings, bridges, walls, or other constructions, or for interior decoration, or for furniture.

Marble—white, black, or colored—used in building, decoration, statuary, monuments, or furniture, in blocks or slabs not manufactured.

CLASS 103.—Lime, cement, and hydraulic cement, raw and burned, accompanied by specimens of the crude rock or material used, also artificial stone, concrete, beton.

Specimens of lime mortar and mixtures, with illustrations of the processes of mixing, etc. Hydraulic and other cement.

Beton mixtures and results, with illustrations of the processes.

Artificial stone for building purposes, building blocks, cornices, etc.

Artificial stone mixtures, for pavements, walls, or ceilings.

Plasters, mastics, etc.

CLASS 104.—Clays, kaolin, silex, and other materials for the manufacture of porcelain faience, and of glass, bricks, terra cotta and tiles, and fire brick. Refractory stones for lining furnaces, sandstone, steatite, etc., and refractory furnace materials.

CLASS 105.—Graphite, crude and refined; for polishing purposes; for lubricating, electrotyping, photography, pencils, etc.

CLASS 106.—Lithographic stones, hones, whetstones, grindstones, grinding and polishing materials, sand quartz, garnet, crude topaz, diamond, corundum, emery in the rock and pulverized, and in assorted sizes and grades.

CLASS 107.—Mineral waters, artesian well water, natural brines, saline and alkaline efflorescences and solutions. Mineral fertilizing substances, gypsum, phosphate of lime, marls, shells, coprolites, etc., not manufactured.

METALLURGICAL PRODUCTS.

CLASS 110.—Precious metals.

CLASS 111.—Iron and steel in the pig, ingot, and bar, plates and sheets, with specimens of slags, fluxes, residues, and products of working.

CLASS 112.—Copper in ingots, bars, and rolled, with specimens illustrating its various stages of production.

CLASS 113.—Lead, zinc, antimony, and other metals, the result of extractive processes.

CLASS 114.—Alloys used as materials, brass, nickel, silver, solder, etc.

MINING ENGINEERING—MODELS, MAPS, AND SECTIONS.

CLASS 120.—Surface and underground surveying and plotting. Projection of underground work, location of shafts, tunnels, etc. Surveys for aqueducts and for drainage.

Boring and drilling rocks, shafts, and tunnels, etc. Surveys for aqueducts, and for ascertaining the nature and extent of mineral deposits.

Construction. Sinking and lining shafts by various methods, driving and timbering tunnels, and the general operations of opening, stoping, and breaking down ore, timbering, lagging, and masonry.

Hoisting and delivering at the surface, rock, ore, or miners.

Pumping and draining by engines, buckets, or by adits.

Ventilation and lighting.

Subaqueous mining, blasting, etc.

Hydraulic mining, and the various processes and methods of sluicing and washing auriferous gravel and other superficial deposits.

Quarrying.

CLASS 121.—Models of mines, of veins, etc.

CLASSIFICATION.

DEPARTMENT II.—MANUFACTURES.

CHEMICALS.

CLASS 200.—Chemicals, pharmaceutical preparations.

Mineral acids, and the methods of manufacture. Sulphuric, nitric, and hydrochloric acids.

The common commercial alkalies, potash, soda, and ammonia, with their carbonates.

Salt and its production. Salt from deposits—native salt. Salt by solar evaporation from sea water. Salt by evaporation from water of saline springs or wells. Rock salt. Ground and table salt.

Bleaching powders and chloride of lime.

Yeast powders, baking powders.

CLASS 201.—Oils, soaps, candles, illuminating and other gases.

Oils from mineral, animal, and vegetable sources. Refined petroleum, benzine, naphtha, and other products of the manufacture. Oils from various seeds, refined, and of various degrees of purity. Olive oil, cottonseed oil, palm oil. Animal oils, of various kinds, in their refined state. Oils prepared for special purposes besides lighting and for food. Lubricating oils.

Soaps and detergent preparations.

Candles, stearine, glycerine, paraffine, etc., spermaceti.

Illuminating gas and its manufacture.

Oxygen gas, and its application for heating, lighting, metallurgy, and as a remedial agent.

Chlorine and carbonic acid.

CLASS 202.—Paints, pigments, dyes, colors, turpentine, varnishes, printing inks, writing inks, blacking.

CLASS 203.—Flavoring extracts, essences, perfumery, pomades, cosmetics.

CLASS 204.—Explosive and fulminating compounds; in small quantities only, and under special regulations, shown in the building only by empty cases and cartridges. Black powder of various grades and sizes. Nitroglycerine and the methods of using and exploding. Giant powder, dynamite, dualin, tri-nitroglycerine.

CLASS 205.—Pyrotechnics, for display, signaling, missiles.

CERAMICS—POTTERY, PORCELAIN, ETC.

CLASS 206.—Bricks, drain-tiles, terra cotta, and architectural pottery.

CLASS 207.—Fire clay goods, crucibles, pots, furnaces. Chemical stoneware.

CLASS 208.—Tiles, plain, enameled, encaustic; geometric tiles and mosaics. Tiles for pavements and for roofing, etc.

CLASS 209.—Porcelain for purposes of construction. Hardware trimmings, etc.

CLASS 210.—Stone china, for chemists, druggists, etc., earthenware, stoneware, faience, etc.

CLASS 211.—Majolica and Palissy ware.

CLASS 212.—Biscuit-ware, parian, etc.

CLASS 213.—Porcelain for table and toilet use, and for decoration.

GLASS AND GLASSWARE.

CLASS 214.—Glass used in construction and for mirrors. Window glass of various grades of quality and of size. Plate glass, rough, and ground or polished. Toughened glass.

CLASS 215.—Chemical and pharmaceutical glassware, vials, bottles.

CLASS 216.—Decorative glassware.

FURNITURE AND OBJECTS OF GENERAL USE IN CONSTRUCTION AND IN DWELLINGS.

CLASS 217.—Heavy furniture.—Chairs, tables, parlor and chamber suits, office and library furniture, vestibule furniture. Church furniture and decoration.

CLASS 218.—Table furniture.—Glass, china, silver, silver-plate, tea and coffee sets, urns, samovars, epergnes.

CLASS 219.—Mirrors, stained and enameled glass, cut and engraved window-glass, and other decorative objects.

CLASS 220.—Gilt cornices, brackets, picture frames, etc.

CLASS 221.—The nursery and its accessories; children's chairs, walking chairs.

CLASS 222.—Apparatus and fixtures for heating and cooking,—stoves, ranges, heaters, etc.

CLASS 223.—Apparatus for lighting,—gas fixtures, lamps, etc.

CLASS 224.—Kitchen and pantry,—utensils, tinware, and apparatus used in cooking (exclusive of cutlery).

CLASS 225.—Laundry appliances, washing machines, mangles, clothes-wringers, clothes-bars, ironing-tables.

CLASS 226.—Bath-room and water closet, shower bath, earth closet.

CLASS 227.—Manufactured parts of buildings,—sash, blinds, mantels, metal work, etc.

YARNS AND WOVEN GOODS OF VEGETABLE OR MINERAL MATERIALS.

CLASS 228.—Woven fabrics of mineral origin.—Wire cloths, sieve cloth, wire screens, bolting cloth.

Asbestos fibre, spun and woven, with the clothing manufactured from it.

Glass thread, floss, and fabrics.

CLASS 229.—Coarse fibres, of grass, rattan, cocoanut, and bark.

Matting, Chinese, Japanese, palm-leaf, grass, and rushes.

Floor cloths of rattan and cocoanut fibres, aloe fibre, etc.

CLASS 230.—Cotton yarns and fabrics, bleached and unbleached.

Cotton sheeting and shirting, plain and twilled.

Cotton canvas and duck. Awnings, tents.

CLASS 231.—Dyed cotton fabrics, exclusive of prints and calicoes.

CLASS 232.—Cotton prints and calicoes, including handkerchiefs, scarfs, etc.

CLASS 233.—Linen and other vegetable fabrics, uncolored or dyed.

CLASS 234.—Floor oil cloths, and other painted and enameled tissues, and imitation of leather, with a woven base.

WOVEN AND FELTED GOODS OF WOOL AND MIXTURES OF WOOL.

CLASS 235.—Card wool fabrics.—Yarns, broadcloth, doeskins, fancy cassimeres. Felted goods.

CLASS 236.—Flannels.—Plain flannels, domets, opera and fancy.

CLASS 237.—Blankets, robes, and shawls.

CLASS 238.—Combined wool fabrics.—Worsteds, yarns, dress goods for women's wear, delaines, serges, poplins, merinoes.

CLASS 239.—Carpets, rugs, etc.—Brussels, melton, tapestry, tapestry Brussels, Axminster, Venetian, ingrain, felted carpetings, druggets, rugs, etc.

CLASS 240.—Hair, alpaca, goat's hair, camel's hair, and other fabrics, mixed or unmixed with wool.

CLASS 241.—Printed and embossed woolen cloths, table covers, patent velvets.

SILK AND SILK FABRICS, AND MIXTURES IN WHICH SILK IS THE PREDOMINATING MATERIAL.

CLASS 242.—Cocoons and raw silk as reeled from the cocoon, thrown or twisted silks in the gum.

CLASS 243.—Thrown or twisted silks, boiled off or dyed, in hanks, skeins, or on spools.

CLASS 244.—Spun silk yarns and fabrics, and the materials from which they are made.

CLASS 245.—Plain woven silks, lutestrings, sarsnets, satins, serges, foulards, tissues for hat and millinery purposes, etc.

CLASS 246.—Figured silk piece goods, woven or printed. Upholstery silks, etc.

CLASS 247.—Crapes, velvets, gauzes, cravats, handkerchiefs, hosiery, knit goods, laces, scarfs, ties, veils, all descriptions of cut and made up silks.

CLASS 248.—Ribbons, plain, fancy, and velvet.

CLASS 249.—Bindings, braids, cords, galloons, ladies' dress trimmings, upholsterers', tailors', military, and miscellaneous trimmings.

CLOTHING, JEWELRY, AND ORNAMENTS, TRAVELING EQUIPMENTS.

CLASS 250.—Ready-made clothing, knit goods and hosiery, military clothing, church vestments, costumes, waterproof clothing, and clothing for special objects.

CLASS 251.—Hats, caps, boots and shoes, gloves, mittens, etc., straw and palm leaf hats, bonnets, and millinery.

CLASS 252.—Laces, embroideries, and trimmings for clothing, furniture, and carriages.

CLASS 253.—Jewelry and ornaments worn upon the person.

CLASS 254.—Artificial flowers, coiffures, buttons, trimmings, pins, hooks and eyes, fans, umbrellas, sunshades, walking-canes, pipes, and small objects of dress or adornment, exclusive of jewelry. Toys and fancy articles.

CLASS 255.—Fancy leather work, pocketbooks, toilet cases, traveling equipments, valises, and trunks.

CLASS 256.—Furs.

CLASS 257.—Historical collections of costumes, national costumes.

PAPER, BLANK BOOKS, AND STATIONERY.

CLASS 258.—Stationery for the desk, stationers' articles, pens, pencils, inkstands, and other apparatus of writing and drawing.

CLASS 259.—Writing paper and envelopes, blank-book paper, bond paper, tracing paper, tracing linen, tissue paper, etc., etc.

CLASS 260.—Printing paper for books, newspapers, etc.

Wrapping paper of all grades, cartridge and manilla paper, paper bags.

CLASS 261.—Blank books; sets of account books, specimens of ruling and binding, including blanks, bill heads, etc., book binding.

CLASS 262.—Cards; playing cards, cardboard, binders' board, pasteboard, paper or cardboard boxes.

CLASS 263.—Building paper, pasteboard for walls, cane fibre felt for car-wheels, ornaments, etc.

CLASS 264.—Wall papers, enamelled and colored papers, imitations of leather, wood, etc.

MILITARY AND NAVAL ARMAMENTS, ORDNANCE, FIREARMS, AND HUNTING APPARATUS.

CLASS 265.—Military small-arms, muskets, pistols, and magazine guns, with their ammunition.
CLASS 266.—Light artillery, compound guns, machine guns, mitrailleuses, etc.
CLASS 267.—Heavy ordnance and its accessories.
CLASS 268.—Knives, swords, spears, and dirks.
CLASS 269.—Firearms used for sporting and hunting, also other implements for the same purpose.
CLASS 270.—Traps for game, birds, vermin, etc.

MEDICINE, SURGERY, PROTHESIS.

CLASS 272.—Medicines; officinal (in any authoritative pharmacopœia), articles of the materia medica, preparations, unofficinal.
CLASS 273.—Dietetic preparations, as beef extract and other articles intended especially for the sick.
CLASS 274.—Pharmaceutical apparatus.
CLASS 275.—Instruments for physical diagnosis, clinical thermometers, stethoscopes, ophthalmoscopes, etc. (except clinical microscopes, etc., for which see Class 324).
CLASS 276.—Surgical instruments and appliances, with dressings, apparatus for deformities, prothesis, obstetrical instruments.
CLASS 277.—Dental instruments and appliances.
CLASS 278.—Vehicles and appliances for the transportation of the sick and wounded, during peace and war, on shore or at sea.

HARDWARE, EDGE TOOLS, CUTLERY, AND METALLIC PRODUCTS.

CLASS 280.—Hand tools and instruments used by carpenters, joiners, and for wood and stone in general. Miscellaneous hand tools used in industries, such as jewellers', engravers'.
CLASS 201.—Cutlery, knives, penknives, scissors, razors, razor straps, skates, and implements sold by cutlers.
CLASS 282.—Emery and sand paper, polishing powders, polishing and burnishing stones.
CLASS 283.—Metal hollow ware, ornamental castings.
CLASS 284.—Hardware used in construction, exclusive of tools and implements. Spikes, nails, screws, tacks, bolts, locks, latches, hinges, pulleys. Plumbers' and gas fitters' hardware, furniture fittings, ships' hardware, saddlers' hardware, and harness fittings and trimmings.

FABRICS OF VEGETABLE, ANIMAL, OR MINERAL MATERIALS.

CLASS 285.—India rubber goods and manufactures.
CLASS 286.—Brushes.
CLASS 287.—Ropes, cordage.
CLASS 288.—Flags, insignia, emblems.
CLASS 289.—Wooden and basket ware, papier mache.
CLASS 290.—Undertakers' furnishing goods, etc.
CLASS 291.—Galvanized iron work.

CARRIAGES, VEHICLES, AND ACCESSORIES.

(For farm vehicles and railway carriages, see Departments of Agriculture and Machinery.)

CLASS 292.—Pleasure carriages.
CLASS 293.—Traveling carriages, coaches, stages, omnibuses, hearses, Bath chairs, velocipedes, baby coaches.
CLASS 294.—Vehicles for movement of goods and heavy objects, carts, wagons, trucks.
CLASS 295.—Sleighs, sledges, sleds, etc.
CLASS 296.—Carriage and horse furniture, harness and saddlery, whips, spurs, horse blankets, carriage robes, rugs, etc.

CLASSIFICATION.

DEPARTMENT III.—EDUCATION AND SCIENCE.

EDUCATIONAL SYSTEMS, METHODS, AND LIBRARIES.

CLASS 300.—Elementary instruction. Infant schools and kindergartens, arrangements, furniture, appliances, and modes of training.

Public schools, graded schools, buildings and grounds, equipments, courses of study, methods of instruction, text-books, apparatus, including maps, charts, globes, etc.; pupils' work, including drawing and penmanship; provisions for physical training.

CLASS 301.—Higher education. Academies and high schools.

Colleges and universities. Buildings and grounds; libraries, museums of zoology, botany, mineralogy, art, and archeology; apparatus for illustration and research, mathematical, physical, chemical, and astronomical courses of study; text-books, catalogues, libraries, and gymnasiums.

CLASS 302.—Professional schools, theology, law, medicine, and surgery, dentistry, pharmacy, mining, engineering, agriculture, and mechanical arts, art and design, military schools, naval schools, normal schools, commercial schools, music.

Buildings, text-books, libraries, apparatus, methods, and other accessories for professional schools.

CLASS 303.—Institutions for instruction of the blind, deaf, and dumb, and the feeble-minded.

CLASS 304.—Education reports and statistics.

National bureau of education.

State, city, and town systems.

College, university, and professional systems.

CLASS 305.—Libraries, history, reports, statistics, and catalogues.

CLASS 306.—School and text-books, dictionaries, encyclopedias, gazetteers, directories, index volumes, bibliographies, catalogues, almanacs, special treatises, general and miscellaneous literature, newspapers, technical and special newspapers and journals, illustrated papers, periodical literature.

INSTITUTIONS AND ORGANIZATIONS.

CLASS 310.—Institutions founded for the increase and diffusion of knowledge. Such as the Smithsonian Institution, the Royal Institution, the Institute of France, British Association for the Advancement of Science, and the American Association, etc., their organization, history, and results.

CLASS 311.—Learned and scientific associations. Geological and mineralogical societies, etc. Engineering, technical, and professional associations. Artistic, biological, zoological, medical schools, astronomical observatories.

CLASS 312.—Museums, collections, art galleries, exhibitions of works of art and industry. Agricultural fairs, state and county exhibitions, national exhibitions. International exhibitions.

Scientific museums and art museums.

Ethnological and archeological collections.

CLASS 313.—Music and the drama.

SCIENTIFIC AND PHILOSOPHICAL INSTRUMENTS AND METHODS.

CLASS 320.—Instruments of precision, and apparatus of physical research, experiment, and illustration.

Astronomical instruments and accessories, used in observatories.

Transits, mural circles, equatorials, collimators.

Geodetic and surveying instruments. Transits, theodolites, needle compasses. Instruments for surveying underground in mines, tunnels, and excavations.

Nautical astronomical instruments. Sextants, quadrants, repeating circles, dip-sectors.

Leveling instruments and apparatus. Carpenters' and builders' levels, hand levels, water levels, engineers' levels.

Instruments for deep-sea sounding and hydrographic surveying.

Meteorological instruments and apparatus.

Thermometers, pyrometers.

Barometers.

Hygrometers and rain gauges.

Maps, bulletins.

Blanks for reports, methods of recording, reducing, and reporting observations.

CLASS 321.—Indicating and registering apparatus, other than meteorological; mechanical calculation.

Viameters, pedometers, perambulators.

Gas meters.

Water meters, current meters, ships' logs, electrical logs.

Tide registers.

Apparatus for printing consecutive numbers.

Counting machines, calculating engines, arithmometers.

CLASS 322.—Weights, measures, weighing and meteorological apparatus.

Measures of length; graduated scales on wood, metal, ivory, tape, or ribbon; steel tapes, chains, rods, verniers, rods, and graduated scales for measuring lumber, goods in packages, casks, etc., gaugers' tools and methods.

Measures of capacity for solids and liquids.

Weights. Scales and graduated beams for weighing; assay balances, chemical balances. Ordinary scales for heavy weights; weighing locomotives and trains of cars. Postal balances. Hydrometers, alchometers, lactometers, etc.; gravimeters. (*See Class 571.*)

CLASS 323.—Chronometric apparatus.

Chronometers. Astronomical clocks. Church and metropolitan clocks. Ordinary commercial clocks. Pendulum and spring clocks. Marine clocks. Watches. Ciepsydras, hour glasses, sun dials. Chronographs, electrical clocks. Metronomes.

CLASS 324.—Optical and thermotic instruments and apparatus.

Mirrors, plane and spherical.

Lenses and prisms.

Spectacles and eyeglasses, field and opera glasses, graphoscopes and stereoscopes.

Cameras and photographic apparatus.
Microscopes.
Telescopes.
Apparatus for artificial illumination, including electric, oxyhydrogen, and magnesium light.
Stereopticons.
Photometric apparatus.
Spectroscopes and accessories for spectrum analysis.
Polariscopes, etc.
Thermotic apparatus.

CLASS 325.—Electrical apparatus.
Friction machines.
Condensers and miscellaneous apparatus to illustrate the discharge.
Galvanic batteries and accessories to illustrate dynamical electricity.
Electro-magnetic apparatus.
Induction machines, Rumkorff coils, etc.
Magnets and magneto-electrical apparatus.

CLASS 326.—Telegraphic instruments and methods.
Batteries and forms of apparatus used in generating the electrical currents for telegraphic purposes.
Conductors and insulators, and methods of support, marine telegraph cables.
Apparatus of transmission; keys, office accessories, and apparatus.
Receiving instruments, relay magnets, local circuits.
Semaphoric and recording instruments.
Codes, signs, or signals.
Printing telegraphs for special uses.
Electrographs.
Dial or cadran systems.
Apparatus for automatic transmission.

CLASS 327.—Musical instruments and acoustic apparatus.
Percussion instruments, drums, tamborines, cymbals, triangles.
Pianos.
Stringed instruments other than pianos.
Automatic musical instruments, music boxes.
Wind instruments of metal and of wood.
Harmoniums.
Church organs and similar instruments.
Speaking machines.
Vocal music.

ENGINEERING, ARCHITECTURE, CHARTS, MAPS, AND GRAPHIC REPRESENTATIONS.

(For Agricultural Engineering, see Class 680.)

(For Mining Engineering, see Class 120.)

CLASS 330.—Civil engineering. Land surveying, public lands, etc.
River, harbor, and coast surveying. Construction and maintenance of roads, streets, pavements, etc. Surveys and location of towns and cities, with systems of water supply and drainage. Arched bridges of metal, stone, brick, or beton. Trussed girder bridges. Suspension bridges. Canals, aqueducts, reservoirs, construction of dams. Hydraulic engineering and means of arresting and controlling the flow of water.
Submarine constructions, foundations, piers, docks, etc.

CLASS 331.—Dynamic and industrial engineering. Construction and working of machines; examples of planning and construction of manufacturing and metallurgical establishments.

CLASS 332.—Railway engineering. Location of railways, and the construction and management of railways.

CLASS 333.—Military engineering.

CLASS 334.—Naval engineering.

CLASS 335.—Topographical map. Marine and coast charts.

Geological maps and sections.

Botanical, agronomical, and other maps, showing the extent and distribution of men, animals, and terrestrial products. Physical maps.

Meteorological maps and bulletins. Telegraphic routes and stations. Railway and route maps. Terrestrial and celestial globes. Relief maps and models of portions of the earth's surface. Profiles of ocean beds and routes of submarine cables.

PHYSICAL, SOCIAL, AND MORAL CONDITION OF MAN.

CLASS 340.—Physical development and condition.

The nursery and its accessories.

Gymnasiums, games, and manly sports. Skating, walking, climbing, ball-playing, acrobatic exercises; rowing, hunting, etc.

CLASS 341.—Alimentation. Markets; preparation and distribution of food.

CLASS 342.—The dwelling. Sanitary conditions and regulations. Domestic architecture.

Dwellings characterized by cheapness, combined with the conditions essential to health and comfort.

Fire-proof structures.

Hotels, club-houses, etc.

Public baths.

CLASS 343.—Commercial systems and appliances.

Mercantile forms and methods, counting-houses and offices.

Banks and banking.

Saving and trust institutions.

Insurance; fire, marine, life, etc.

Commercial organizations, boards of trade, merchants', produce, and stock exchanges.

Corporations for commercial and manufacturing purposes.

Railway and other transportation companies.

Building and loan associations.

CLASS 344.—Money. Mints and coining.

Collections of current coins.

Historical collections.

Tokens, etc.

Bank notes and other paper circulating mediums.

Commercial paper, bills of exchange, etc.

Securities for payment of money, stocks, bonds, mortgages, ground rents, quit rents.

Precautions against counterfeiting and misappropriation of money.

CLASS 345.—Government and law. Various systems of government.

Departments of government. Revenue and taxation, military organization, executive powers, legislative forms and authority, judicial functions and systems, police regulations, government charities.

International relations; international law; diplomatic and consular service, etc., allegiance and citizenship; naturalization.

Codes.

Municipal government.
Protection of property in inventions.
Postal system and appliances.
Punishment of crime.
Prisons and prison management and discipline; police stations; houses of correction; reform schools; naval or marine discipline; punishment at sea.

CLASS 346.—Benevolence. General hospitals.
Special hospitals for the eye and ear, for women, etc.
Hospitals for contagious and infectious diseases.
Hospitals for the insane—under State control, and private asylums.
Quarantine systems and organizations.
Sanitary regulations of cities.
Dispensaries.
Inebriate asylums.
Lying-in asylums.
Magdalen asylums.
Asylums for infants and children. Foundling and orphan asylums, children's aid societies.
Homes for the aged and infirm; homes for aged men and women; soldiers' homes; homes for the maimed and deformed; sailors' homes.
Treatment of paupers. Almshouses, feeding the poor, lodging houses.
Emigrant aid societies.
Treatment of aborigines.
Prevention of cruelty to animals.

CLASS 347.—Co-operative associations.
Political societies and organizations.
Military organizations and orders.
Trade unions and associations.
Industrial organizations.
Secret orders and fraternities.

CLASS 348.—Religious organizations and systems. Origin, nature, growth, and extent of various religious systems and faiths. Statistical, historical, and other facts.
Religious orders and societies, and their objects.
Societies and organizations for the propagation of systems of religion by missionary effort.
Spreading the knowledge of religious systems by publications.
Bible societies, tract societies, colportage.
Systems and methods of religious instruction and training for the young.
Sunday-schools, furniture and apparatus.
Associations for religious or moral improvement.
Dispensing charities, church guilds.

CLASS 349.—Art and industrial exhibitions. Agricultural fairs, state and county exhibitions, national exhibitions, international exhibitions, international congresses, etc.

CLASSIFICATION.

DEPARTMENT IV.—ART.

SCULPTURE.

CLASS 400.—Figures and groups in stone, metal, clay, or plaster.
CLASS 401.—Bas-reliefs, in stone or metal; electrotype copies.
CLASS 402.—Medals, pressed and engraved; electrotypes of medals.
CLASS 403.—Hammered and wrought work—*repoussé* and *rehaussé* work, embossed and engraved relief work.
CLASS 404.—Cameos, intaglios, engraved stones, dies, seals, etc.
CLASS 405.—Carvings in wood, ivory, and metal.

PAINTING.

CLASS 410.—Paintings in oil on canvas, panels, etc.
CLASS 411.—Water color pictures; aquarelles, miniatures, etc.
CLASS 412.—Frescoes, cartoons for frescoes, etc.
CLASS 413.—Painting with vitrifiable colors. Pictures on porcelain, enamel, and metal.

ENGRAVING AND LITHOGRAPHY.

CLASS 420.—Drawings with pen, pencil, or crayons.
CLASS 421.—Line engravings from steel, copper, or stone.
CLASS 422.—Wood engravings.
CLASS 423.—Lithographs, zincographs, etc.
CLASS 424.—Chromo-lithographs.

PHOTOGRAPHY.

CLASS 430.—Photographs on paper, metal, glass, wood, fabrics, or enamel surfaces.
CLASS 431.—Prints from photo-relief plates, carbon prints, etc.
CLASS 432.—Photo-lithographs, etc.
CLASS 433.—Photographic apparatus and supplies.

INDUSTRIAL AND ARCHITECTURAL DESIGNS, MODELS, AND DECORATIONS.

CLASS 440.—Industrial designs.
CLASS 441.—Architectural designs; studies and fragments, representations and projects of edifices; restorations from ruins and from documents.
CLASS 442.—Decoration of interiors of buildings.
CLASS 443.—Artistic hardware and trimmings, artistic castings, forged metal work for decoration, etc.

DECORATION WITH CERAMIC AND VITREOUS MATERIALS, MOSAIC AND INLAID WORK.

CLASS 450.—Mosaic and inlaid work in stone.
CLASS 451.—Mosaic and inlaid work in tiles, tessaræ, glass, etc.
CLASS 452.—Inlaid work in wood and metal, parquetry, tables, etc.
CLASS 453.—Stained glass.
CLASS 454.—Miscellaneous objects of art.

CLASSIFICATION.

DEPARTMENT V.—MACHINERY.

MACHINES, TOOLS, AND APPARATUS OF MINING, METALLURGY, CHEMISTRY, AND THE EXTRACTIVE ARTS.

CLASS 500.—Rock drilling.
CLASS 501.—Well and shaft boring.
CLASS 502.—Machines, apparatus, and implements for coal cutting.
CLASS 503.—Hoisting machinery and accessories.
CLASS 504.—Pumping, draining, and ventilating.
CLASS 505.—Crushing, grinding, sorting, and dressing. Breakers, stamps, mills, pans, screens, sieves, jigs, concentrators.
CLASS 506.—Furnaces, smelting apparatus, and accessories.
CLASS 507.—Machinery used in Bessemer process.
CLASS 508.—Chemical manufacturing machinery. Electroplating. Paint and powder mills. Blacking and soap-making machinery.
CLASS 509.—Gas machinery and apparatus.

MACHINES AND TOOLS FOR WORKING METAL, WOOD, AND STONE.

CLASS 510.—Planing, sawing, veneering, grooving, mortising, tonguing, cutting, moulding, stamping, carving, and cask-making machines, etc., cork-cutting machines.
CLASS 511.—Direct acting steam sawing machines, with gang saws. Bark mills.
CLASS 512.—Rolling mills, bloom squeezers, blowing fans. Rivet, nail, bolt, and tack making machinery.
CLASS 513.—Furnaces and apparatus for casting metals, with specimens of work.
CLASS 514.—Steam, trip, and other hammers, with specimens of work, anvils, forges, bellows.
CLASS 515.—Planing, drilling, slotting, turning, shaping, punching, stamping, cutting, and coining machines. Wheel cutting and dividing machines, emery wheels, drills, taps, gauges, dies, etc. Grindstones.
CLASS 516.—Stone-sawing and planing machines, dressing, shaping, and polishing, sand blasts, Tilghman's machines, glass-grinding machines, etc.
CLASS 517.—Brick, pottery, and tile machines. Machines for making artificial stone.
CLASS 518.—Furnaces, moulds, blowpipes, etc., for making glass and glassware.
CLASS 519.—Tools, implements, etc., for working metal, wood, and stone.

MACHINES AND IMPLEMENTS OF SPINNING, WEAVING, FELTING, AND PAPER MAKING.

CLASS 520.—Machines for the manufacture of silk goods.
CLASS 521.—Machines for the manufacture of cotton goods.
CLASS 522.—Machines for the manufacture of woolen goods, carpets, and tapestry.
CLASS 523.—Machines for the manufacture of linen goods.

CLASS 524.—Machines for the manufacture of rope and twine, and miscellaneous fibrous materials.
CLASS 525.—Machines for the manufacture of paper and felting.
CLASS 526.—Machines for the manufacture of india-rubber goods.
CLASS 527.—Machines for the manufacture of mixed fabrics.
CLASS 528.—Machines for the manufacture of wire cloth.

MACHINES, APPARATUS, AND IMPLEMENTS USED IN SEWING AND MAKING CLOTHING AND ORNAMENTAL OBJECTS.

CLASS 530.—Machines used in the manufacture of lace, floor-cloths, fancy embroidery, hair, ribbons, etc.
CLASS 531.—Sewing and knitting machines, clothes, corset, hat, and bonnet making machines.
CLASS 532.—Machines for preparing and working leather.
CLASS 533.—Machines for making boots and shoes.
CLASS 534.—Machines for ironing, drying, scouring, and cleaning.
CLASS 535.—Machines for making clocks and watches.
CLASS 536.—Machines for making jewelry.
CLASS 537.—Machines for making buttons, pins, needles, etc.
CLASS 538.—Pipes for smoking.

MACHINES AND APPARATUS FOR TYPESETTING, PRINTING, STAMPING, EMBOSSING, AND FOR MAKING BOOKS, AND PAPER WORKING.

CLASS 540.—Printing, stamping, embossing, and lithographing presses.
CLASS 541.—Typecasting machines, apparatus of stereotyping.
CLASS 542.—Types and typesetting machines. Type-writing machines.
CLASS 543.—Printers' furniture.
CLASS 544.—Bookbinding machines.
CLASS 545.—Paper-folding machines.
CLASS 546.—Paper and card cutting machines, paper box machines.
CLASS 547.—Envelope machines.

MOTORS AND APPARATUS FOR THE GENERATION AND TRANSMISSION OF POWER.

CLASS 550.—Boilers and all steam or gas generating apparatus for motive purposes.
CLASS 551.—Water-wheels, water engines, hydraulic rams, windmills.
CLASS 552.—Steam, air, or gas engines, electro-magnetic engines.
CLASS 553.—Apparatus for the transmission of power, shafting, belting, cables, transmission of power by compressed air, etc., gearing, cables.
CLASS 554.—Screw propellers, wheels for the propulsion of vessels, and other motors.
CLASS 555.—Implements and apparatus used in connection with motors. steam gauges, manometers, etc. Anti-friction metals.

HYDRAULIC AND PNEUMATIC APPARATUS, PUMPING, HOISTING, AND LIFTING.

CLASS 560.—Pumps and apparatus for lifting and moving liquids.
CLASS 561.—Pumps and apparatus for moving and compressing air or gas.
CLASS 562.—Pumps and blowing engines, blowers and ventilating apparatus.
CLASS 563.—Hydraulic jacks, presses, elevators, lifts, meters, cranes.
CLASS 564.—Fire engines, hand, steam, or chemical, and fire extinguishing apparatus, hose, ladders, and fire-escapes, etc.
CLASS 565.—Beer engines, soda-water machines, bottling apparatus, corking machines.
CLASS 566.—Stop valves, cocks, pipes, etc.
CLASS 567.—Diving apparatus and machinery.
CLASS 568.—Ice machines.

RAILWAY PLANT, ROLLING STOCK, AND APPARATUS.

CLASS 570.—Locomotives, models, drawings, plans, etc.
CLASS 571.—Carriages, wagons, trucks, cars, etc

CLASS 572.—Brakes, buffers, couplings, and snow-plows.
CLASS 573.—Wheels, tires, axles, bearings, springs, etc.
CLASS 574.—Permanent ways, ties, chairs, switches, etc.
CLASS 575.—Station arrangements, signals, water-cranes, turn-tables.
CLASS 576.—Miscellaneous locomotive attachments.
CLASS 577.—Street railways and cars.

MACHINES USED IN PREPARING AGRICULTURAL PRODUCTS.

CLASS 580.—Flour mills.
CLASS 581.—Sugar refining machines.
CLASS 582.—Confectioners' machinery.
CLASS 583.—Oil-making machinery.
CLASS 584.—Tobacco manufacturing machines.
CLASS 585.—Mills for spices, coffee, etc.
CLASS 586.—Machines for preparing fancy goods.
CLASS 587.—Machines for preparing malt and spirituous liquors.

AERIAL, PNEUMATIC, AND WATER TRANSPORTATION.

CLASS 590.—Suspended cable railways.
CLASS 591.—Transporting cables.
CLASS 592.—Balloons, flying machines, etc.
CLASS 593.—Pneumatic railways, pneumatic dispatch.
CLASS 594.—Boats and sailing vessels. Sailing vessels used in commerce. Sailing vessels used in war. Yachts and pleasure boats. Rowing boats of all kinds. Life boats and salvage apparatus, with life rafts, belts, etc. Submarine armor, diving bells, etc. Ice boats. Models and drawings.
CLASS 595.—Steamships, steamboats, and all vessels propelled by steam.
CLASS 596.—Vessels for carrying telegraph cables and railway trains, also coal barges, water boats, and dredging machines, screw and floating docks, and for other special purposes.
CLASS 597.—Steam capstans, windlass, deck-winches, and steering apparatus, fans.

MACHINERY AND APPARATUS ESPECIALLY ADAPTED TO THE REQUIREMENTS OF THE EXHIBITION.

Boilers, engines, cranes, pumps, etc.

CLASSIFICATION.

DEPARTMENT VI.—AGRICULTURE.

ARBORICULTURE AND FOREST PRODUCTS.

CLASS 600.—Timber and trunks of trees, entire or in transverse or truncated sections, with specimens of barks, leaves, flowers, seed vessels, and seed.

Masts, spars, knees, longitudinal sections of trees, railway ties, ship timber, lumber roughly sawn; as planks, shingles, lath, and staves.

Timber and lumber prepared in various ways to resist decay and combustion; as by injection of salts of copper and zinc.

CLASS 601.—Ornamental woods used in decorating and for furniture; as veneers of mahogany, rosewood, ebony, walnut, maple, and madrona.

CLASS 602.—Dyewoods, barks, and galls for coloring and tanning.

CLASS 603.—Gums, resins, caoutchouc, gutta percha, vegetable wax.

CLASS 604.—Lichens, mosses, fungi, pulu, ferns.

CLASS 605.—Seeds, nuts, etc., for food and ornamental purposes.

CLASS 606.—Forestry.—Illustrations of the art of planting, managing, and protecting forests. Statistics.

CLASS 607.—Fruit trees and shrubs.

POMOLOGY.

CLASS 610.—Fruits of temperate and semi-tropical regions; as apples, pears, quinces, peaches, nectarines, apricots, plums, grapes, cherries, strawberries, and melons.

CLASS 611.—Tropical fruits and nuts, oranges, bananas, plantains, lemons, pine-apples, pomegranates, figs, cocoanuts.

AGRICULTURAL PRODUCTS.

CLASS 620.—Cereals, grasses, and forage plants.

CLASS 621.—Leguminous plants and esculent vegetables.

CLASS 622.—Roots and tubers.

CLASS 623.—Tobacco, hops, tea, coffee, spices, condiments, herbs.

CLASS 624.—Seeds and seed vessels.

LAND ANIMALS.

CLASS 630.—Horses, asses, mules.

CLASS 631.—Horned cattle.

CLASS 632.—Sheep.

CLASS 633.—Goats, alpaca, llama, camel.

CLASS 634.—Swine.

CLASS 635.—Poultry and birds.

CLASS 636.—Dogs and cats.

CLASS 637.—Wild animals.

CLASS 638.—Insects, useful and injurious. Honey bees, cochineal, silk-worms.

MARINE ANIMALS, FISH CULTURE, AND APPARATUS.

CLASS 640.—Marine mammals.—Seals, cetaceans, etc., specimens living in aquaria, or stuffed, salted, preserved in alcohol, or otherwise.

CLASS 641.—Fishes, living or preserved.

CLASS 642.—Pickled fish, and parts of fish used for food.

CLASS 643.—Crustaceans, echinoderms, beche de mer.

CLASS 644.—Mollusks, oysters, clams, etc., used for food.

CLASS 645.—Shells, corals, and pearls.

CLASS 646.—Whalebone, shagreen, fish-glue, isinglass, sounds, fish-oil.

CLASS 647.—Instruments and apparatus of fishing.—Nets, baskets, hooks, and other apparatus used in catching fish.

CLASS 648.—Fish culture.—Aquaria, hatching pools, vessels for transporting roe and spawn, and other apparatus used in fish breeding, culture, or preservation.

ANIMAL AND VEGETABLE PRODUCTS.

(Used as food or as materials.)

CLASS 650.—Sponges, seaweed, and other growths used for food or in the arts.

CLASS 651.—The dairy.—Milk, cream, butter, cheese.

CLASS 652.—Hides, furs, and leather, tallow, oil, and lard, ivory, bone, horn, glue.

CLASS 653.—Eggs, feathers, down.

CLASS 654.—Honey and wax.

CLASS 655.—Animal perfumes; as musk, civet, ambergris.

CLASS 656.—Preserved meats, vegetables, and fruits. Dried, or in cans or jars. Meat and vegetable extracts.

CLASS 657.—Flour; crushed and ground cereals, decorticated grains.

CLASS 658.—Starch and similar products.

CLASS 659.—Sugar and syrups.

CLASS 660.—Wines, alcohol, and malt liquors.

CLASS 661.—Bread, biscuits, crackers, cakes, confectionery, cocoa, chocolate, etc.

CLASS 662.—Vegetable oils, oil cake.

TEXTILE SUBSTANCES OF VEGETABLE OR ANIMAL ORIGIN.

CLASS 665.—Cotton on the stem, in the boll, ginned, and baled.

CLASS 666.—Hemp, flax, jute, ramie, etc., in primitive forms and in all stages of preparation for spinning.

CLASS 667.—Wool in the fleece, carded, and in bales.

CLASS 668.—Silk in the cocoon and reeled.

CLASS 669.—Hair, bristles.

MACHINES, IMPLEMENTS, AND PROCESSES OF MANUFACTURE.

CLASS 670.—Tillage.—Manual implements, spades, hoes, rakes. Animal power machinery, plows, cultivators, horse-hoes, clod-crushers, rollers, harrows. Steam power machinery, plows, breakers, harrows, cultivators.

CLASS 671.—Planting.—Manual implements, corn-planters and hand-drills. Animal power machinery, grain and manure drills, corn and cotton planters. Steam power machinery, grain and manure drills.

CLASS 672.—Harvesting.—Manual implements; grain-cradles, sickles, reaping-hooks. Animal power machinery, reapers and headers. Mowers, tedders, rakes, hay elevators, and hay loaders.

Potato diggers.

CLASS 673.—Preparatory to marketing.—Thrashers, clover-hullers, corn-shellers, winnowers, hay, cotton, flax, jute, ramie, wine, oil, and sugar making apparatus. Cleaners and smutters. Horse powers.

CLASS 674.—Applicable to farm economy.—Portable and stationary engines, chaffers, hay and feed cutters, slicers, pulpers, corn mills, farm boilers and steamers, incubators, edged tools, mills, meat choppers.

CLASS 675.—Dairy fittings and appliances.—Churns for hand and power, butter-workers, cans and pails, cheese-presses, vats, and apparatus, ice-cream freezers, cedar-ware.

AGRICULTURAL ENGINEERING AND ADMINISTRATION.

CLASS 680.—Laying out and improving farms.—Clearing (stump extractors), construction of roads, draining, irrigating, models of fences, gates, drains, out-falls, dams, embankments, irrigating machinery, stack building and thatching.

CLASS 681.—Commercial fertilizers, phosphatic, ammoniacal, calcareous, etc.

CLASS 682.—Transportation.—Wagons, carts, sleds, harness, yokes, traction engines, and apparatus for road making and excavating.

CLASS 683.—Farm buildings.—Models and drawings of farm houses and tenements, barns, stables, hop-houses, fruit-driers, ice-houses, windmills, granaries, barracks, apiaries, cocooneries, aviaries, abattoirs, and dairies.

TILLAGE AND GENERAL MANAGEMENT.

CLASS 690.—Systems of planting and cultivation.

CLASS 691.—Systems of draining and application of manures.

CLASS 692.—Systems of breeding and stock feeding, training.

CLASS 693.—Veterinary surgery and appliances.

CLASSIFICATION.

DEPARTMENT VII.—HORTICULTURE.

ORNAMENTAL TREES, SHRUBS, AND FLOWERS.

CLASS 700.—Ornamental trees and shrubs, evergreens.

CLASS 701.—Herbaceous perennial plants.

CLASS 702.—Bulbous and tuberous rooted plants.

CLASS 703.—Decorative and ornamental foliage plants.

CLASS 704.—Annuals and other soft-wooded plants, to be exhibited in successive periods during the season.

CLASS 705.—Roses.

CLASS 706.—Cactacea.

CLASS 707.—Ferns, their management in the open air and in ferneries, wardian cases, etc.

CLASS 708.—New plants, with statement of their origin.

CLASS 709.—Floral designs, etc.—Cut flowers, bouquets, preserved flowers, leaves, seaweeds. Illustrations of plants and flowers.—Materials for floral designs. Bouquet materials, bouquet holders, bouquet papers, models of fruits, vegetables, and flowers.

HOTHOUSES, CONSERVATORIES, GRAPERIES, AND THEIR MANAGEMENT.

CLASS 710.—Hothouse and conservatory plants.

CLASS 711.—Fruit trees under glass.

CLASS 712.—Orchids and parasitic plants.

CLASS 713.—Forcing and propagation of plants.

CLASS 714.—Aquatic plants under glass, or in aquaria, etc.

CLASS 715.—Horticultural buildings, propagating houses, hotbeds, etc., and modes of heating them. Structures for propagating and forcing small fruits.

CLASS 716.—Portable or movable orchard houses and graperies, without artificial heat. Frames, beds.

GARDEN TOOLS, ACCESSORIES OF GARDENING.

CLASS 720.—Tools and implements.—Machines for the transplanting of trees, shrubs, etc. Portable forcing pumps, for watering plants in greenhouses and methods of watering the garden and lawn.

CLASS 721.—Receptacles for plants.—Flower pots, plant-boxes, tubs, fern cases, jardinieres, etc. Window gardening. Plant and flower stands, ornate designs in iron, wood, and wire.

CLASS 722.—Ornamental wirework, viz.: fences, gates, trellis bordering of flower beds, porches. Park seats, chairs, garden statuary, vases, fountains, etc. Designations, labels, numbers.

GARDEN DESIGNING, CONSTRUCTION, AND MANAGEMENT.

CLASS 730.—Laying out gardens.—Designs for the laying out of gardens, and the improvement of private residences. Designs for commercial gardens, nurseries, graperies. Designs for the parterre. Books on gardening.

CLASS 731.—Treatment of water for ornamental purposes, cascades, fountains, reservoirs, lakes.

CLASS 732.—Formation and after-treatment of lawns.

CLASS 733.—Garden construction, buildings, etc. — Rockwork, grottoes. Rustic constructions and adornments for private gardens and public grounds.

CLASS 734.—Planting, fertilizing, and cultivating.

INDEX TO ADVERTISEMENTS.

PAGE

Anderson, D., & Son.....147
American Newspaper Union.....60
"Aroma" Cigar.....47
Barlow & Jones.....144
Burke, Edward & John.....145
Bartlett, W., & Sons.....145
Bliss' Chipping Norton Tweeds.....146
Bood, Wolfe & Co.....147
Brook, Jonas, & Brother.....148
Bailey & Co.....54
Baeder, Adamson & Co.....101
Clark's "O. N. T." Spool Cotton.....Facing second page of cover.
Cantrell & Cochrane.....146
Clark, John, Jr., & Co.....152
Conover, David F., & Co.....124
Dewhurst, John, & Sons.....153
Drown, W. A., & Co.....112
Dobbins' Electric Soap.....125
Ewart, William, & Son.....151
French, E. D. & W. A.....132
French Restaurant.....112
Furnald & Champion.....112
Greener, W. W.....144
Great Combination Store.....Third page of cover.
Gloucester Iron Works.....100
Grubb, Jos. C., & Co.....101
Goodall's Household Specialties.....147
Henry, Alex.....144
Hamblet, Jos.....145
Hooper, Cleeve, Jr.....145
Huddell & Seitzinger.....125
Herrings' Safes.....142
Horstman Brothers & Co.....124
Haseltine Galleries.....47
Johnson, J., & Co.....154
Kittle, S. P.....132
Lewis, John T., & Bros.....100
McAlister, W. T., & Co.....47
Mintons' Tiles.....125
Morgan & Headley.....125
McCallum, Crease, & Sloan.....113
McGee, John G., & Co.....145
Pim Brothers & Co.....150
Presbyterian Banner.....124
Pratt, E. C., Bro. & Co.....143
Provident Life and Trust Co.....124
Penn Mutual Life Insurance Co.....47
Pennsylvania Railroad.....55
Pittsburgh Daily Evening Chronicle.....112
Pittsburgh Commercial.....125
Radway's, Dr., Medicines.....61
"Star" Alpaca Braids.....Facing second page of cover.
Sun Newspaper.....321
Scott, W. C., & Son.....144
Smith, David, & Co.....144
Tomkinson, A. S.....320
Thornton, John, & Co.....133
United Presbyterian.....133
Wattson, Thos., & Sons.....133
West Philadelphia Passenger Railway Company.....Second page of cover.
York Street Flax Spinning Co.....149

THE FINEST CIGAR

(At six for 25 cents)

IN THE UNITED STATES,

THE "AROMA,"

FROM

THE UNITED STATES CIGAR MANUFACTORY,

Office, S. W. cor. Fifteenth and Vine Sts.,

PHILADELPHIA.



TWENTY-EIGHTH ANNUAL REPORT OF

THE PENN MUTUAL LIFE INSURANCE CO.

OFFICE, 921 CHESTNUT STREET, PHILADELPHIA.

ASSETS, JAN. 1st, 1876.

United States bonds, Philadelphia and other stocks and loans,	$1,770,477 50
Mortgages and ground rents upon property appraised at $5,334,200, all first liens,	1,971,308 84
Real estate owned by Co.,	349,186 53
Premium notes and loans secured by collateral,	853,610 13
Cash on hand and in trust companies,	191,916 62
Scrip dividends held by Co.,	113,030 00
Balance in hand of agents,	17,953 48
All other securities,	236,846 14
	$5,504,329 24

LIABILITIES.

Losses reported, but not yet due,	$90,920 00	
Reserve at 4 per cent interest, required to insure outstanding risks,	4,553,118 00	
Scrip yet outstanding,	113,030 00	
		4,756,438 00
Surplus to policy holders, 4 per cent. basis,		747,891 24
Surplus to policy holders, 4½ per cent. basis,		1,083,091 24
Total number of policies issued in 1875,		2,093
Policies in force Jan. 1, 1876,		9,545
Amount at risk,		$28,389,363 00

SAMUEL C. HUEY, President,
H. S. STEPHENS, Second Vice-President.
HENRY AUSTIE, Secretary.

SAMUEL E. STOKES, Vice-President.
JAMES WEIR MASON, Actuary.



HASELTINE GALLERIES,

1125 and 1127 Chestnut St., Philadelphia.

DEPT. I.—MINING AND METALLURGY.

UNITED STATES.

Minerals, Ores.

Minerals, Ores, Stone, Mining Products.

1 **Cambria Iron & Steel Co., Johnstown, Pa.** W 66.
a Carborate, fossil, and hematite ores from Johnstown, Frankstown, Marklesburg, Yellow Creek, Henrietta, and Springfield mines; specular, magnetic, red hematite, Lake Superior, and Lake Champlain ores; manganiferous Iron Mountain ores. 100
b B, C, D, and E coal from Johnstown and Bennington mines; Belgian oven and pit coke. 101
c Lime and ganister from near Hollidaysburg, Henrietta, and Ganister mines. 103

2 **Wharton, Joseph, Camden, N. J.**—Nickel ores. T 63. 100

3 **Sharswood, Wm., Philadelphia, Pa.**—T 70. 100
a Magnetic iron ore from the Moratuc Furnace mines, Danbury, N. C.; ores and minerals from North Carolina. 100
b Coal from North Carolina. 101
c Marble from North Carolina. 102
d Steatite, agalmatolite, etc. from North Carolina. 104

4 **Hatch, John. San Francisco, Cal.**—Minerals of the Pacific states and territories, Mexico, Central and South America, China, Japan, etc. T 67. 100

5 **Barton, Chas., Philadelphia, Pa.**—Ores from "Blazing Star" silver mine, Colorado. T 71. 100

6 **Adams, J. Howe, Philadelphia, Pa.**—Ore from "Blue Jacket" silver mine, Montana district, Colorado. T 71. 100

7 **Benton, Caroline C., Philadelphia, Pa.**—Iron ores from St. Lawrence and Lewis counties, N. Y. T 67. 100

8 **Foote, A. E., M.D., 3725 Lancaster** avenue, Philadelphia, Pa.—Collection of minerals; elementary collection of minerals for students illustrating principal species; all grand divisions in Dana; every chemical element; every system of crystallization; trimorphism, 100 specimens, averaging four square inches, mostly crystallized, printed label of species, composition, locality attached—$10.00; crystallized amazon stone, feldspar, quartz, Brookite, rutile rosettes, perofskite, hodrotetanite (new mineral, Koenig), schorlomite, samarskite, tellurides, copper, hexagonal graphite, embolite, aegerite, ozarkite, chlorastrolite, wavellite, peganite, etc. T 71. 100

9 **Cleveland Rolling Mill Co., Cleveland, Ohio.**—Ores. T 60. 100

11 **Wyoming Historical & Geological** Society, Wilkesbarre, Pa.—Fossils from the anthracite coal measures of Wyoming Valley, Pa. T 70. 100

12 **Cook, Isaac, St. Louis, Mo.**—Lead ores from Washington county, Mo. T 68. 100

13 **Port Henry Iron Ore Co., J. B.** Brinsmade, Treasurer, 56 Broadway, New York, N. Y.—Magnetic iron ores, "Twenty-one," puddling, and furnace ore; "Fisher" Bessemer ore. T 71. 100

14 **Witherbees, Sherman, & Co., Port** Henry, Essex County, N. Y.—Old bed puddling and furnace ore, and new bed Bessemer ore. T 71. 100

15 **Black Band Iron Co., Marietta, O.**—Black band, red hematite, and other iron ores. V 63. 100

16 **Brown & Co., Wayne Iron & Steel** Works, Pittsburg, Pa.—Ores. T 62. 100

17 **Lucy Furnace Co., Pittsburg, Pa.**—Iron ores. T 66. 100

18 **Providence Franklin Society, Providence, R. I.**—Minerals and geological specimens from Rhode Island. T 70. 100

19 **Lombard, Thos. C., New York, N. Y.**—Galena from Tudor mine, Hastings county, Ont. T 71. 100

20 **Hussey & Howe Mining Co., Plattsburg, N. Y.**—Blue magnetic iron ore (martite); black magnetic iron ore. T 69. 100

21 **Alexander, John S., Philadelphia, Pa.**—Collection of minerals. P 68. 100

22 **Passaic Zinc Co., Passaic, N. J.**—Zinc ores. T 63. 100

23 **Magnetite Iron Co., Philadelphia, Pa.**—Bessemer ores; minerals from Carter county, Tenn. T 69. 100

24 **Crab Orchard Iron Co., Philadelphia, Pa.**—Magnetic Bessemer iron ores from Crab Orchard, Tenn. T 69. 100

25 **Herr, Jos. C., Philadelphia, Pa.**—Hematite iron ores, manganese, and baryta from French Broad River, Cocke county, Tenn. T 69. 100

26 **Davis, O. W., jr., Bangor, Maine.**—Katahdin ores (limonite). T 69. 100

26*a* **Fleming, F. N. & J. S., Goochland** C. H., Va.—T 68.
a Minerals, especially gold ores. 100
b Mineral waters. 107

27 **Thomas Iron Co., Hokendauqua, Pa.**—Iron ore. T 64. 100

28 **Lehigh Zinc Co., Bethlehem, Pa.**—Zinc ores and minerals from zinc mines. T 64. 100

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Minerals, Ores.

29 Virginia Mineral Bureau, Alexandria, Va.—Collection of minerals of Virginia and West Virginia. N 62. 100

30 Stockbridge Iron Co., New Bedford, Mass.—Iron ore from West Stockbridge and Richmond, Mass. T 70. 100

31 Dexter & Co., New York, N. Y.—Mica from North Carolina. T 72. 100

32 Minong Mining Co., Detroit, Mich.—Native copper, etc. V 67. 100

33 Shalter, R. M., Carrick Furnace, Franklin county, Pa.—Iron ore T 63. 100

34 Shelby Iron Co., Shelby Iron Works, Ala.—Iron ores. T 71 100

35 Rockhill Iron & Coal Co., Philadelphia, Pa.—T 72 *and* V 56.
a Iron ores. 100
b Semi-anthracite coal; coke. 101

36 Tecumseh Iron Co., Tecumseh, Ala. Willard Warner, President and Manager; A. E. Buck, Treasurer, Atlanta, Ga.—Pig iron, iron ore, charcoal, limestone. T 70. 100

36*a* Smith, J. C., Chicago, Ill.—Minerals of Jo Daviess county. V 72. 100

37 New River Railroad, Mining, & Manufacturing Co. of Virginia, Philadelphia, Pa.—Iron ores and other minerals. T 50. 100

37*a* Cosgriff, A., Tilly Foster Iron Mines, N. Y.—Magnetic iron ore. V 62. 100

37*b* South & North Alabama Railroad, Montgomery, Ala.—V 63 *and* T, 57.
a Iron ore and minerals. 100
b Coal and coke. 101

38 Lackawanna Iron & Coal Co., Scranton, Pa.—Iron ores. T 63. 100

39 Carpenter, Charles, Kelley's Island, Ohio.—Geological rocks. V 63 100

40 Lake Superior Iron Co., Marquette county, Mich.—Iron ore. T 70. 100

41 Kentucky Geological Survey.—Collection illustrating the geology and mineral resources of Kentucky. X 65. 100

42 Allen, Oliver, Mumford, N. Y.—Petrified wood, leaves, ferns, etc., found on his premises. T 72. 100

43 Vesuvius Furnace, Etna Iron Works, Ironton, Ohio.—Iron ore. T 68. 100

44 Etna Furnace, Etna Iron Co., Hanging Rock, Ohio.—Iron ore. T 68. 100

45 Blanche Furnace, Etna Iron Works, Ironton, Ohio.—Iron ores. T 68. 100

46 Hecla Iron & Mining Co., John Campbell, President, Ironton, O.—Iron ores. T 68. 100

47 Monitor Furnace Co., Ironton, O.—Iron ores. T 68. 100

48 Grant Furnace, W. D. Kelley & Sons, Ironton, O.—Iron ores. T 63. 100

49 Center Furnace, W. D. Kelley & Sons, Ironton, O.—Iron ores. T 63. 100

49*a* Pennsylvania Geological Survey (by John B. Pease).—Scientific collection of rocks, minerals, models, and maps illustrating the geology of Pennsylvania. V 70. 100

50 Howard Furnace, Charcoal Iron Co., Ironton, O.—Iron ores. T 68. 100

50*a* Benton, Lewis F., Antwerp, N.Y.—Lead ore. T 70. 100

51 Buckhorn Furnace, Charcoal Iron Co., Ironton, O.—Iron ores. T 68. 100

52 Olive Furnace, Campbell, McGugin, & Co., Ironton, O.—Iron ores. T 68. 100

53 Lawrence Furnace Co., Ironton, O.—Iron ores. T 68. 100

53*a* Ward, L. B., Niles, O.—V 61 *to* 63.
a Iron ore. 100
b Coal. 101

54 Pine Grove Furnace, Means, Kyle, & Co., Hanging Rock, O.—Iron ores. T 66. 100

55 Ohio Furnace, Means, Kyle, & Co., Hanging Rock, O.—Iron ores. T 68. 100

56 Washington Furnace, Union Iron Co., Portsmouth O.—Iron ores. T 68. 100

56*a* Chaffin, Staples, & Co., Richmond, Va.—Ores. T 56. 100

57 Scioto Furnace, L. C. Robinson & Co., Portsmouth, O.—Iron ores. T 68. 100

58 Bloom Furnace, John Paul & Co., Portsmouth, O.—Iron ores. T 68. 100

59 Clinton Furnace, W. I. Bell, Wheelersburg, O.—Iron ores. T 68. 100

59*a* Selma & Alabama Railroad, Montgomery, Ala.—V 60.
a Iron ore. 100
b Section of coal-beds. 101

60 Buckeye Furnace Co., Jackson, O.—Iron ores. T 68. 100

61 Cambria Furnace, D. Lewis & Co., Samsonville, O.—Iron ores. T 68. 100

62 Jackson Furnace, L. P. N. Smith's Heirs, Sciotoville, O.—Iron ores. T 68. 100

62*a* Wallis, Jno. G., Fulton, Ark.—Sulphate of antimony and argentiferous galena. N 55. 100

63 Jefferson Furnace Co., Oak Hill, O.—Iron ores. T 68. 100

64 Orange Furnace, Orange Iron Co., Jackson, O.—Iron ores. T 68. 100

65 Star Furnace Co., Jackson, O.—Iron ores. T 68. 100

66 Huron Furnace, Huron Iron Co., Jackson, O.—Iron ores. T 68. 100

67 Tropic Furnace Co., Jackson, O.—Iron ores. T 68. 100

68 Globe Furnace, Globe Iron Co., Jackson, O.—Iron ores. T 68. 100

69 Fulton Furnace, Globe Iron Co. Jackson, O.—Iron ores. T 68 100

69*a* Liking Iron Co., Newark, O.—V 63.
a Iron ore. 100
b Coal. 101
c Flux and slag. 103

70 Wellston Twin Furnaces, Wellston Coal & Iron Co., Wellston, O.—Iron ores. T 68. 100

70*a* Hannibal & St. Joseph Railroad, Hannibal, Mo.—Minerals, etc. from the line of the road. V 65. 100

70*b* St. Louis & Iron Mountain Railroad, St. Louis, Mo.—Minerals, etc. from the line of the road. T 60. 100

71 Lincoln Furnace, I. M. McGhee's Estate, Rud's Mills, O.—Iron ores. T 68. 100

72 Richland Furnace Co., Richland P. O., O.—Iron ores. T 68. 100

For location of objects, indicated by letter and figure, see Key to Notation, p. 25; ground plan, p. 26.

Minerals, Ores, Stone.

73 Eagle Furnace, L. C. Damarin & Co., Rud's Mills, O.—Iron ores. T 68. 100

74 Hope Furnace, L. C. Damarin & Co., Portsmouth, O.—Iron ores. T 68. 100

75 Hamden Furnace, L. C. Damarin & Co., Portsmouth, O.—Iron ores. T 68. 100

75*a* Marietta, Pittsburg, & Cleveland Railway, Marietta, O.—Minerals and ores. V 63. 100

76 Vinton Furnace, Bancroft, Rader, & Co., Vinton Station, O.—Iron ores. 100

77 Keystone Furnace Co., Portsmouth, O.—Iron ores. T 68. 100

78 Monroe Furnace, Union Iron Co., Portsmouth, O.—Iron ores. T 68. 100

79 Latrobe Furnace, Bundy & Cobb, Berlin Cross Roads, O.—Iron ores. T 68. 100

79*a* Barnes, Lewis, Philadelphia, Pa.—Manganiferous iron ore, from Warren county, N. J. T 50. 100

80 Logan Furnace Co., Logan county, O.—Iron ores. T 68. 100

81 Union Furnace, Brooks & Hueston, Haydensville, O.—Iron ores. T 68. 100

82 Mount Savage Furnace, Lexington & Carter county Mining & Manufacturing Co., Lexington, Ky.—Iron ores. T 68. 100

83 Buffalo Furnace, Culbertson, Earhart, & Co., Greenupsburg, Ky.—Iron ores. T 68. 100

84 Hunnewell Furnace, Eastern Kentucky Railway Co., Riverton, Ky.—Iron ores. T 68. 100

85 Pennsylvania Furnace, Eastern Kentucky Railway Co., Riverton, Ky.—Iron ores. T 68. 100

86 Charlotte Furnace Co., Riverton, Ky.—Iron ores. T 68. 100

87 Laurel Furnace, Robt. Scott & Co., Riverton, Ky.—Iron ores. T 68. 100

88 Gallia Furnace, Norton, Campbell, & Co., Portsmouth, O.—Iron ores. T 68. 100

88*a* Iowa, State of.—Minerals, ores, etc. of Iowa. V 59. 100

89 Raccoon Furnace, Raccoon Mining & Manufacturing Co., Riverton, Ky.—Iron ores. T 68. 100

90 Tygert's Valley Mining Co., Riverton, Ky.—Section of iron ore. T 68. 100

90*a* Chester Iron Co., Chester, N. J.—Iron ore. T 64. 100

91 Bellefonte Furnace, Means, Russell, & Means, Ashland, Ky.—Iron ores. T 68. 100

92 Buena Vista Furnace, Means & Co., Ashland, Ky.—Iron ores. T 68. 100

93 Trigg Furnace, D. Hillman & Sons, Empire Iron Works, Ky.—Iron ores. T 68. 100

93*a* Lowe, S. B., Chattanooga, Tenn.—Ores. X 63. 100

94 Center Furnace, D. Hillman & Sons, Empire Iron Works, Ky.—Iron ores. T 68. 100

96 Hanging Rock Iron Region, Ironton, O.—Iron ores. T 68. 100

97 Traber & Aubery, Cincinnati, O.—Iron ores from twenty-five states and territories. T 68. 100

98 Borden, William W., New Providence, Ind.—Fossils of Clark county, Ind., and stone. X 60. 100

99 Cooper, Hewitt, & Co., New York, N. Y. T 66.
a Iron ores. 100
b Fuels. 101

100 Ohio Coal Co., Marietta, O.—V 63.
a Coal. 100
b Coke. 101

101 Rhodes & Co., Cleveland, O.—V 61 *to* 63.
a Lake Superior iron ores. 100
b Massillon, Ohio, coals. 101

102 Poplar Creek Mineral Railroad Co., Philadelphia, Pa.—T 69.
a Iron ores, etc., from Anderson county, Tenn. 100
b Coal from Anderson county, Tenn. 101

103 Durham Iron Co., Riegelsville, Pa.—T 64.
a Ores. 100
b Fuel. 101

104 Glendon Iron Co., Easton, Pa.—T 64.
a Iron ores. 100
b Fuel. 101

105 Mahoning Valley Centennial Association, Youngstown, O.—V 63.
a Ores. 100
b Coal. 101
c Limestone. 103

106 Bye, E. Mortimer, Wilmington, Del.
a Iron ore. (Titaniferous magnetic.) *Chrome ore.* (Rock and sand.) 100
b Maryland "verde antique" marble (serpentine), various shades of green, handsomely blended; takes a brilliant polish, does not fade or weather, and is adapted for all kinds of ornamental work. T 70. 102

107 Northampton Furnace, worked by the Bethlehem Iron Co., Bethlehem, Pa.—T 64.
a Iron ores. 100
b Fuel. 101

108 Lehigh Iron Co., Allentown, Pa.—T 64.
a Iron ore. 100
b Coal. 101

109 Emaus Iron Co., Allentown, Pa.—T 64.
a Iron ore. 100
b Fuel. 101

111 Allentown Rolling Mill Co., Allentown, Pa.—T 64.
a Ores. 100
b Fuel. 101

112 Carbon Iron Co., Parryville, Pa.—T 64.
a Iron ore. 100
b Fuel. 101

113 Philadelphia and Reading Coal and Iron Co., Philadelphia, Pa.—T 72 *and* Y 56.
a Iron ores. 100
b Coals for smelting and steam purposes. 101

114 Grand Tower Mining, Manufacturing, and Transportation Co., Grand Tower, Ill.—T 68.
a Ores. 100
b Fuel. 101

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Minerals, Ores, Stone.

115 Ironton Furnace Iron & Steel Co., Ironton, O.—T 68.
- *a* Iron ores. 100
- *b* Bituminous coal. 101

116 Belfont Furnace, Belfont Iron Works, Ironton, O.—T 68.
- *a* Iron ores. 100
- *b* Bituminous coals. 101

117 Ophir Furnace Co., Jackson, O.—T 68.
- *a* Iron ores. 100
- *b* Jackson county stone coal. 101

118 Norton Iron Works, Ashland, Ky. —T 68.
- *a* Iron ores. 100
- *b* Coals and coke. 101

119 Ashland Furnace, Lexington & Big Sandy Railroad Co., Ashland, Ky. —T 68.
- *a* Iron ores. 100
- *b* Coals. 101

120 Powel, Robert Hare, & Co., 424 Walnut street, Philadelphia, Pa.—X 54.
- *a* Iron ores. 100
- *b* Semi-bitum·nous and gas coals, from the Powelton estate, Pennsylvania. 101

121 Union Iron Co. of Buffalo, Buffalo, N. Y.—T 64 *and* U 60 *outside*.
- *a* Iron ores. 100
- *b* Limestone. 103

122 Woodstock Iron Co., Anniston, Ala.—T 63.
- *a* Iron and manganese ores. 100
- *b* Limestone. 103

123 Saucon Iron Co., Hellertown, Pa. —T 64.
- *a* Hematite and magnetic ore. 100
- *b* Limestone. 103

123*a* Selma, Rome, & Dalton Rail-road (by S. W. Baird), Cincinnati, O.—X 64.
- *a* Copper and iron ores. 100
- *b* Coal. 101
- *c* Slate, marble, and limestone. 102
- *d* Fire clay. 104

124 Andrews, Hitchcock, & Co., Cleve-land, O.—V 61 *to* 64.
- *a* Lake Superior iron ores. 100
- *b* Brier Hill coal. 101
- *c* Limestone. 103

125 Duncan, John W., Philadelphia, Pa.—T 72.
- *a* Iron ores. 100
- *b* Clays. 104

126 Peru Steel & Iron Co., Clinton-ville, N. Y.—T 63.
- *a* Iron ore. 100
- *b* Graphite ore. 105

127 Thomas, W. H. B., Mount Holly, N. J.—T 68.
- *a* Minerals. 100
- *b* Marls for fertilizing purposes; mineral waters from New Jersey. 107

127*a* Brooke, E. & G., Birdsboro', Pa. —T 67.
- *a* Magnetic and hematite iron ores. 100
- *b* Anthracite coal. 101

128 Myers, A. J., Shenandoah Alum Springs, Va.—T 67.
- *a* Minerals, ores. 100
- *b* Mineral spring waters, chalybeate, iron, and sulphur waters. 107

128*a* Andover Iron Co., Phillipsburg, N. J.—T 64.
- *a* Iron ores. 100
- *b* Coal. 101
- *c* Limestone and slags. 103

129 Crane Iron Co., Catasauqua, Pa. —T 64.
- *a* Hematite and magnetic iron ores. 100
- *b* Fuel. 101
- *c* Limestone. 103

130*a* Chattanooga Mineral District, Chattanooga, Tenn.—X 63.
- *a* Iron and copper ores; gold quartz. 100
- *b* Coal. 101
- *c* Marble. 102

131 Lehigh Valley Iron Co., Copley, Pa. —T 64.
- *a* Hematite and magnetic ore. 100
- *b* Fuel. 101
- *c* Limestone. 103

132 Ohlton Coal Co., Youngstown, O. —V 63.
- *a* Black band ore mixed with coal. 100
- *b* Mineral ridge coal. 101

132*a* Glasgow & Port Washington Iron & Coal Co., Port Washington, O.—V 61 *and* W 64.
- *a* Ores. 100
- *b* Coal. 101

133 Alice Furnace, Etna Iron Works, Hanging Rock, Ohio.—T 68.
- *a* Iron ores. 100
- *b* Bituminous coal and coke. 101
- *c* Limestone. 103

133*a* Coleraine Iron Co., Northampton county, Pa.—T 64.
- *a* Iron ore. 100
- *b* Coal. 101

134 Hanging Rock Iron Region Fur-naces, Charles Campbell, Commissioner, Ironton, O.—T 69.
- *a* Iron ores. 100
- *b* Cinders, bituminous coals. 101
- *c* Limestone. 103
- *d* Fire clay. 104

135 Tuscarawas Coal & Iron Co., Cleve-land, O.—T 71.
- *a* Iron ores. 100
- *b* Coal. 101
- *c* Limestone. 103
- *d* Sand, fire clay. 104

136 Mount Vernon Furnace, Hiram Campbell & Sons, Ironton, O.—T 68.
- *a* Iron ores. 100
- *b* Bituminous coals. 101
- *c* Limestone. 103
- *d* Fire clay. 104

137 Milton Furnace & Coal Co., Wells-ton, O.—T 68.
- *a* Iron ores. 100
- *b* Coals. 101
- *c* Limestone. 103
- *d* Fire clay. 104

138 Huntingdon & Broad Top Rail-road Co., Philadelphia, Pa.—V 56.
- *a* Iron ores. 100
- *b* Coal. 101
- *c* Limestones. 103
- *d* Fire clays. 104

139 State of Wisconsin.—V 60.
- *a* Minerals, soils, etc. 100
- *b* Building stone. 102
- *c* Sands, gravel. 104

140 State of Ohio (by F. W. Green).—V 61 *to* 63.
- *a* Minerals, ores. 100
- *b* Stone. 102
- *c* Clay, etc. 104

For location of objects, indicated by letter and figure, see Key to Notation, p. 25; ground plan, p. 26.

Minerals, Ores, Coal.

141 State of New Jersey (by Geo. H. Cook, State Geologist, New Brunswick, N. J.).—T 70.
- *a* Iron, zinc, and copper ores; minerals, geological suite. 100
- *b* Building stones. 102
- *c* Clays and sands. 104
- *d* Fertilizers. 107

142 State of Indiana (by E. T. Cox, State Geologist).—V 58.
- *a* Hydrated brown oxide iron ores. 100
- *b* Bituminous and cannel coal from various mines. 101
- *c* Marble of various colors, oölitic building stone, limestone, sandstone, limestone flags, hydraulic stone. 102
- *d* Hydraulic cement, caustic lime. 103
- *e* Fire, white porcelain, and potters' clay; sand. 104

143 State of Michigan (Jay A. Hubbell, Houghton, Mich., Superintendent of Mineral Department).—V 67.
- *a* Minerals, ores, geological collections, etc. 100
- *b* Bituminous and cannel coal. 101
- *c* Hewn, sawed, and polished building stone, marbles, and slates. 102
- *d* Lime and cement. 103
- *e* Clays and silex for glass manufacturers; sandstone, etc. 104
- *f* Mineral waters, natural brines, gypsum, marls, etc. 107

144 State of Delaware (by J. P. Comegys, Dover, Del.).—V 55.
- *a* Iron ore. 100
- *b* Building stone. 102
- *c* Clays. 104
- *d* Natural woods. 600
- *e* Fruits. 610
- *f* Cereals. 620
- *g* Peas, beans, potatoes, turnips. 621

145 State of Missouri (collective exhibit, by Thos. Allen, President State Board Centennial Managers, St. Louis, Mo.).—V 65 *and* T 60.
- *a* Iron, lead, zinc, copper, and nickel ores, barytes, feldspar, and soils. 100
- *b* Coal. 101
- *c* Stone. 102
- *d* Clays, sand, ochres, and kaolin. 104
- *e* Tripoli. 106
- *f* Peanuts. 605
- *g* Wheat, rye, oats, barley, and corn. 620
- *h* White beans and black-eyed peas. 621
- *i* Millet. 624
- *j* Cotton. 665
- *k* Flax and hemp. 666
- *l* Wool. 667
- *m* Silk. 668

146 Cochran, John M., & Co., Bradford, Pa.—Connellsville bituminous coal and coke. T 56. 101

147 Foster Coal Co., Youngstown, O.—Coal. V 63. 101

148 Kittaning Coal Co., 125 South Fourth street, Philadelphia, Pa.—Clearfield bituminous coal, for steam and manufacturing purposes. Y 56 *and* T 72. 101

149 Westmoreland Coal Co., 230 South Third street, Philadelphia, Pa.—Bituminous coal from the Pittsburg seam, for manufacture of gas and iron, and for locomotive fuel. Y 58. 101

149*a* Warwick, John G., Massillon, O.—Coal from Warmington mines. V 63. 101

150 Penn Gas Coal Co., Westmoreland county, Pa.—Section of bituminous coal-vein. T 72 *and* Y 56. 101

150*a* Sparks, Westwater, & Co., Columbus, O.—Coal from Muskingum county. V 63. 101

151 Van Wickle, Stout, & Co., New York, N. Y.—Anthracite coal from Ebervale, Pa. W 53. 101

152 Kyle Coal Co., Youngstown, O.—Coal. V 63. 101

153 Linderman, G. B., Bethlehem, Pa.—Anthracite coal. T 64. 101

154 Newton, Jotham, New York, N. Y.—Composition fuel made of coal-dust. T 57. 101

155 Union Mining Co., of Alleghany county, Md.—Coal. X 58. 101

155*a* Stoner, Hitchman, & Co., Mt. Pleasant, Pa.—Coal and coke. X 57. 100

156 Anthracite Fuel Co., Rondout, N. Y.—Pressed anthracite coal. Y 54. 101

156*a* Hutchinson, A. A., & Bro., Pittsburg, Pa.—Coke. X 56. 101

157 Hickory Coal Co., Pottsville, Pa.—Samples of coal. W 55. 101

158 Harleigh Coal Co., Philadelphia, Pa.—Samples of coal. W 55. 101

158*a* Lawton, Burnett, & Co., East Palestine, Ohio.—Bituminous coal, from Columbia county, O. V 61 *to* 63. 101

158*b* Draper, John W., Pottsville, Pa.—Anthracite coal. W 56. 101

159 Excelsior Coal Mining Co., Philadelphia, Pa.—Samples of coal. W 55. 101

160 Garretson, Theodore, Philadelphia, Pa.—Coal from the Girard colliery. W 55. 101

161 Wadsworth Coal Co., Akron, O.—Coal from Medina county, O. V 63. 101

162 Blauvelt, Jas. C., Marietta, O.—Bituminous coal from Marietta Run, Ohio. V 61 *to* 64. 101

162*a* Hurd Coal & Iron Co., Columbus, O.—Bituminous coal from Perry county, O. V 63. 101

163 Lexington & Carter county Mining & Manufacturing Co., Lexington, Ky.—Section of bituminous coal. T 68. 101

163*a* Church Hill Coal Co., Youngstown, O.—Coal from Briar Hill. V 63. 101

163*b* Burton, J. P., Massillon, O.—Coal. V 63. 101

163*c* Andrews & Hitchcock, Youngstown, O.—Briar Hill block coal. V 61 *to* 63. 101

163*d* Huddell & Seitzinger, Philadelphia, Pa.—Anthracite coal from Draper's colliery. W 58. 101

164 Keys, John, Brockwayville, Pa.—Lump of bituminous coal. Y 56. 101

164*a* Suydam, M. A. & Co., Columbus, O.—Coal from Straitsville Mining Company. V 63. 101

165 Eastern Kentucky Railway, Riverton, Ky.—Sections of cannel and bituminous coals. T 68. 101

165*a* Hayden, P., Columbus, O.—Coal from Hocking county. V 63. 101

165*b* Steubenville Coal Company, Steubenville, O.—Bituminous coal. V 63. 101

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

165*c* Pomeroy Coal Company, Pomeroy, O.—Coal. V 63. 101

165*d* Brooks, W. B., & Son, Hocking county, O.—Coal. V 63. 101

165*e* Newark Coal Company, Newark, O.—Cannel coal. V 63. 101

166 Dysart & Co., Philadelphia, Pa.—Bituminous white ash coal from Cambria county, Pa. Y 57. 101

166*a* Franklin Coal Company, Akron, O.—Coal from Summit county. V 63. 101

166*b* Fitch, E. A., Columbus, O.—Coal from Athens county. V 63. 101

166*c* Howells, Anthony, Massillon, O.—Coal from Pigeon Run. V 63. 101

167 Kimes, J. B., & Co., Philadelphia, Pa.—Slate mantels, house decorations, building material. T 50. 102

168 Williams Marble & Slate Mantel Co., Philadelphia, Pa.—Marble and marbleized slate mantels, etc. T 48. 102

169 Wilson & Miller, Philadelphia, Pa.—Marbleized slate mantels, etc.; plain slate work. T 51. 102

171 Hayes, Coulter, & Co., Philadelphia, Pa.—Slate mantels with grates. T 59. 102

172 Dougherty, E. D., Philadelphia, Pa.—Blocks of Dougherty marble of Tennessee, rough and polished; pedestals, slabs, etc. The Dougherty marble is used in the U. S. Capitol, Treasury, South Carolina State House, and over one hundred and fifty other buildings, public and private, in all parts of the country. Operated since 1853. Quarry in Doughertyville, Hawkins county, Tenn. T 49. 102

172*a* Peninsula Stone Co., Peninsula, O.—Building stone. V 63. 102

173 Columbian Marble Co., Rutland, Vt.—Marble wainscoting, pedestal, tiling, etc. T 54. 102

174 Van Gunden, Young, & Drumm, Philadelphia, Pa.—Vermont marble tablets and rustic monument; Italian marble. T 47. 102

175 Innis, G. S., Warden of Ohio Penitentiary, Columbus, O.—Limestone from State quarries at Columbus, O. V 61 *to* 64. 102

175*a* Field, F. K., Philadelphia, Pa.—North River, Pennsylvania, and Virginia blue stone. T 53. 102

176 Gurney, H. D., St. Paul, Minn.—Minnesota granite—red, white, and blue. T 50. 102

177 Forest City Stone Co., Cleveland, O.—Sawed stone flagging. T 54. 102

178 Chase, M. K., Bluehill, Maine.—Cut granite pedestal. (*Nave.*) 102

179 Martin, H. F., Allentown, Pa.—Slate mantels and blackboards, school slates, etc. T 51. 102

180 Chandler, C. H., Brownville, Maine.—Roofing slate. T 51. 102

181 Allen, James T., & Co., Philadelphia, Pa.—Scagliola and Marezzo marble for interior decoration. T 54. 102

182 Fauchere, A. L., & Co., New York, N. Y.—Marble mantels, etc. T 50. 102

183 Williams, Chas., St. Louis, Mo.—Tennessee, Italian, and Missouri marble work; jewel box. T 53. 102

183*a* Barker, H., & Bro., Philadelphia, Pa.—Pedestal of Massachusetts granite. (*Nave.*) 102

184 Denton, Drake W., Office, 17 North Front street, Philadelphia, Pa.—Excelsior fire and water-proof slate roofing, and flax waste-composition batting. All orders promptly attended to. T 56. 102

185 Tillson, Davis, Rockland, Maine.—Plain, polished, and ornamental granite work. T 51. 102

185*a* Finnigan, M., Cincinnati, O.—Buena Vista stone. V 61 to 63. 102

185*b* Fish, W., & Co., Columbus, O.—Stone from Portsmouth and Black Lick, Ohio. W 63. 102

185*c* Finch, Pruyn, & Co., Glens Falls, N. Y.—Block of marble. T 51. 102

186 Maine Slate Co., Skowhegan, Maine.—Roofing slate, dark, rich, lustrous, unfading color, unequaled elasticity, toughness, and strength, wonderful rift and smoothness of surface. T. H. Dinsmore, *Business Manager.* T 53. 102

187 Chapman Slate Co., Bethlehem, Pa.—Roofing slate, flagging, stairways, blackboards, posts, door and window sills, mantels. T 64. 102

188 Lehigh Slate Co., Slatington, Pa.—Roofing and school slate, mantels, blackboards, bath tubs; bureau, table, and washstand tops. T 64. 102

188*a* Hinsdale, Doyle, & Co., New York, Granite monuments. T 72. 102

188*b* Fisher & Bird, New York, N. Y.—Marble mantels. T 50. 102

188 Howell, C. M., Lancaster, Pa.—Marble monuments. V 60. 102

189 Allentown Slate Mantel Co., Allentown, Pa.—Slate mantels. T 51. 102

189*a* Hinton, David, Xenia, O.—Building limestone. V 61 *to* 64. 102

189*b* Caguires, Frank, Chicago, Ill.—Antique vase of limestone. T 53. 102

190 Carpenter & Raymond, Cambridge City, Ind.—Monumental work. T 71. 102

191 McDonald, Alexander, Cambridge, Mass.—The Centennial Cascade, a rustic rockwork surmounted by a cross (granite from Glen quarries, Mason, N. H., carved at Cambridge, Mass.), exhibiting fine quality of this granite and its capabilities for carved and polished work. N 56 *and* T 67. 102

191*a* Bosler, Marcus, Dayton, O.—Limestone. V 61 *to* 63. 102

191*b* Ballard & Galloway, Finley, O.—V 61 *to* 63.
a Building limestone. 102
b Lime, and water lime rock. 103

192 Bodwell Granite Co., Rockland, Maine.—Granite samples. T 72. 102

193 Brinton, Joseph H., Thornbury P. O., Pa.—Serpentine stone from quarries in Chester county, Pa. T 55. 102

194 Scorgie, Wight, & Co., Cambridge, Mass.—Polished granite fountain. U 48. 102

For location of objects, indicated by letter and figure, see Key to Notation, p. 25; ground plan, p. 26.

Stone.

195 Struthers, W., & Sons, Philadelphia, Pa.—Mantels, font, group of birds in Caen stone; alto-relief in statuary, marble, sandstone, font, specimens of foreign marbles and native plaster: models for public buildings; specimens of native granites, marbles, and sandstones. T 25. 102

196 Pennsylvania Marble Co., Philadelphia, Pa.—Black marble mantel, book, and tiles. T 51. 102

197 Brown, E. F., Commandant Soldiers' Home, Dayton, O.—Stone from quarries on grounds of National Soldiers' Home. V 61 *to* 63. 102

197*a* Barker, Henry, & Sons, Quincy, Mass.—Quincy granite pedestal. (*Nave.*) 102

198 Rutland Marble Co., West Rutland, Vt.—Wrought and unwrought marble. T 59. 102

199 Maine Red Granite Co., Red Beach, Maine (G. G. McGlashan, superintendent).—Specimen block of red granite from top sheet of quarry. T 55. 102

199*a* Graves Brothers, Birmingham, O. —V 63.
a Building stone. 102
b Grindstones. 106

200 Columbia Slate Co., Slatington, Pa. —Manufactured Washington vein roofing slate. T 54. 102

201 Martin, F. O., St. George, Maine. —Block of dressed granite. T 64. 102

202 Wells, Chas. B., Marietta, O.—Sandstone for building purposes. T 64. 102

203 St. Johnsbury Granite Co., St. Johnsbury, Vt.—Granite monument and tablet.—T 56. 102

204 Merrille, Adams H., Williamsburgh, Maine.—Roofing slate. T 50. 102

207 Clemons, C. H., Sandusky, O.—Limestone. V 61 *to* 63. 102

208 Concord Granite Co., Quincy, Mass. —Granite pedestal. N 48. 102

209 Sheldons & Slason, West Rutland, Vt.—Pedestal of statuary and blue mottled marble. V 54. 102

210 Davis, I. J., Newark, O.—White and red sandstone. V 61 *to* 63. 102

211 McNally, William G., Cleveland, O.—Coat-of-arms of Ohio, carved from Berea stone. (*Ohio State Building.*) 102

211*a* Portland Brown Stone Quarries, Portland, Conn.—Stoops and doorways of Connecticut brown stone. (*Outside.*) 102

211*b* King, T. H., Trumansburg, N. Y. —Flag stones. (*Outside.*) 102

211*c* Stotler, D. C., Piqua, O.—Building limestone. V 61 *to* 64. 102

211*d* Strom & De Planque, New York, N. Y.—Marble table top and mantelpiece. T 51 102

211*e* Fase, Lewis, Covington, O.—V 61 *to* 64.
a Building limestone. 102
b Lime. 103

211*f* North Pittsford Marble Company, Pittsford, Vt.—Marble monuments, pedestal, and design case. T 56. 102

211*g* Paul, John, & Co., Massillon, O.—Stone for building and glass manufacturing. V 61 *to* 63. 102

211*h* Myers, Uhl, & Co., Cleveland, O.—Marble mantel and grate. (*Ohio State Building.*) 102

212 Thompson, Wm. S., Springfield, Ohio.—V 63.
a Stone. 102
b Lime. 103

212*a* Traber, Jacob, Cincinnati, O.—Limestone. V 61 *to* 64. 102

212*b* Mueller, John M., Cincinnati, O.—Buena Vista stone. V 61 *to* 63. 102

212*c* Richey, Morris S., Waverly, O.—Building stone. V 61 *to* 64. 102

212*d* Singer & Talcott Stone Company, Chicago, Ill.—Illinois limestone dressed by machinery. (*At spring S. E. of Horticultural Hall.*) 102

212*e* St. Johnsbury Granite Company, St. Johnsbury, Vt.—Granite monument and tablet. T 57. 102

212*f* Richmond Marble Company, of Vermont, Philadelphia, Pa.—White marble pedestal. T 57. 102

213 Amherst Stone Co., Cleveland, O.—V 63.
a Blocks of sandstone. 102
b Grindstones. 106

214 Warthorst & Co., Massillon, O.—V 63 *and* T 61.
a Blocks of sandstone. 102
b Grindstones. 106

214*a* Berea Stone Company, Berea, O.—V 63.
a Building stone and flagging. 102
b Grindstones, and scythe stones. 106

215 Philadelphia & Reading Railroad Co., Philadelphia, Pa.—T 72 *and* V 56.
a Building stone. 102
b Limestone. 103

216 Worthington & Sons, North Amherst, Ohio.—T 56 *and* V 63.
a Amherst building stone. 102
b Grindstones, etc., from quarries at Amherst and Lake Huron, Mich. 106

216*a* Burlington Manufacturing Co., Burlington, Vt.—Marble tiling.—T 56. 102

217 Williams, R. L., Middle Granville, N. Y.—T 51.
a Vermont and New York roofing slate. 102
b Car coupler. 576

COLLECTIVE EXHIBIT OF BUILDING STONES USED IN THE OHIO STATE BUILDING. 102

218 Hoffman, A. O., Thompson, Wm., and others, Springfield, O.

219 Berea Stone Co., Berea, O.

220 Hurst, I. R., Cleveland, O.

221 Ford, O. D., Cleveland, O.

222 Halderman, L., & Son, Cleveland, O.

223 Wagner, John, Cleveland, O.

224 Amherst Stone Co., Cleveland, O.

225 Black River Stone Co., Cleveland, O.

226 Paul, John, & Co., Massillon, O.

227 Wilson & Hughes Stone Co., Cleveland, O.

228 Clough Stone Co., Amherst, O.

229 Worthington & Sons, Amherst, O.

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

230 Ohio Stone Co., Cleveland, O.
231 McDermott, J., & Co., Cleveland, O.
232 Coshocton Stone Co., Coshocton, O.
233 Stitt, Price, & Co., Columbus, O.
234 Finnegan, M., Cincinnati, O.
235 Finnegan, J. H., Cincinnati, O.
236 Montgomery, R. M., Youngstown O.
237 Caldwell & Tod, Youngstown, O.
238 Byers & McIlhainy, Youngstown, O.
239 Mauser & Haid, Youngstown, O.
240 Hamilton, Homer, Youngstown, O.
241 Warthorst & Co., Massillon, O.
242 Stocking, Z. S., Mansfield, O.
243 Bosler, Marcus, Dayton, O.
244 Huffman, William, Dayton, O.

245 Tremain, Chas., Manlius, N. Y.—Cement and land plaster. V 72. 103

246 Ervin, D. S., Cedarville, Oh o.—Limestone. V 61 *to* 64. 103

246*b* Howes Cave Association, Howes Cave, N. Y.—Hydraulic cement and lime, ground plaster, and rock strata. Y 55. 103

247 Fireproof Building Co., New York, N. Y.—Teil concrete hollow blocks, hollow bricks, and beton blocks. T 55. 103

247*a* Michael, F. M., and others, Eaton, Ohio.—Limestone and lime. V 61 *to* 63. 103

247*b* Sintz, George, Springfield, O.—Limestone and lime. V 61 *to* 64. 103

248 Mitchell, Wilson, Philadelphia, Pa.—Portsilica artificial stone building blocks, partitions, floors, colored paving tiles, etc. T 53. 103

248*a* Richardson, Geo., Milwaukee, Wis.—Artificial stone, with moulds and apparatus for hardening. X 57. 103

250 Wampum Cement & Lime Co., limited, New Castle, Pa.—Portland cement, and samples in artificial stone of various designs. T 57. 103

251 Coplay Cement Co., Allentown, Pa.—Cements, building blocks, pipe, ornaments, etc. T 56. 103

252 Allen Cement Co., Siegfried's Bridge, Pa.—Crude and manufactured cement. T 57. 103

253 Cedar Hollow Lime Co., Philadelphia, Pa.—Lime, lime rock, model of furnace, and model of receptacle for storing and preserving lime. T 58. 103

255 Abbott Pavement Co., Brooklyn, N. Y.—Pavement. The Abbott Pavement is a bituminous concrete that has been used for six years past on many miles of roadways in Brooklyn, and for four or five years in Washington. It costs less than the asphalt pavement of Paris; in this country only about one-half. It costs less than one-half for repairs, and it is not nearly so slippery, while in all the other qualities, of smoothness, quietness, cleanliness, comfort to those driving on it, economy of horseflesh and vehicles, it is admirable. Under patents held by the Abbott Pavement Company, old stone, macadam, and wood pavements can be utilized as a foundation, and millions of dollars' worth of wood pavements, now going rapidly to decay, can be saved, as demonstrated on many miles that have been covered in the city of Brooklyn T 70. 103

256 Union Stone Co., Boston, Mass.—T 50.
a Articles in artificial stone, soapstone register borders, millstone cement, etc. 103
b Emery wheels. 106

256*a* Shields, King & Co., Newark Star Glass Works, Newark, Ohio.—Sands, etc., for making glass. V 61 *to* 63. 104

257 Hampton, Cutter, & Sons, Woodbridge, N. J.—Clays, kaolin, sand. T 55. 104

258 Such, George, South Amboy, N. J.—Samples of clay. T 58. 104

259 Sarchet, J. W. & J. T., Glen Loch Post Office, Pa.—T 57.
a Moulding sand and kaolin. 104
b Flint. 106

260 Kier Brothers, Pittsburg, Pa.—Fire clay. Y 56. 104

261 Bradford, H., Philadelphia, Pa.—Maryland quartz. T 54. 104

261*a* Tucker, George, New York, N. Y.—Tripoli and polishing rouge. N 68. 106

262 Schreiber, W. A. H., Phœnixville, Pa.—Clay, kaolin, flint, spar, and sand; potters' and decorators' materials. T 69. 104

263 Toll, Charles, Monroe, Mich.—Washed and crude silex. V 67. 104

264 Zihlmann, Joseph, Bellaire, O.—Wooden mould for shaping blown glass. T 64. 104

265 Dover Fire Brick Co., Canal Dover, Ohio.—Fire clay. T 63. 104

266 Kreischer, B., & Son, Philadelphia, Pa.—Fire clay, etc. X 56. 104

267 American Kaolin Co.; Works, New Garden, Chester county, Pa.; office, 233 South Third street, Philadelphia, Pa.—Kaolin, china, fire clay, and fire sand. X 58. 104

268 Dixon Crucible Co., Jersey City, N. J.—Crude and refined graphite. P 72. 105

269 Strow, Wile, & Co., Philadelphia, Pa.—Black lead crucibles, retorts, covers, etc.; plumbago, crude and prepared; lumber pencils, stove polish. T 59. 105

270 Taylor, Robert, & Co., Philadelphia, Pa.—Black lead crucibles. T 58. 105

271 Morse Bros., Canton, Mass.—Stove polish, lumber pencils, plumbago. The "Rising Sun Stove Polish," noted for beauty of polish, saving of labor, durability, freeness from dust and odor, when heated. This preparation is an excellent article. The Rising Sun Lumber Pencils, and samples of plumbago, from which they are manufactured. T 56. 105

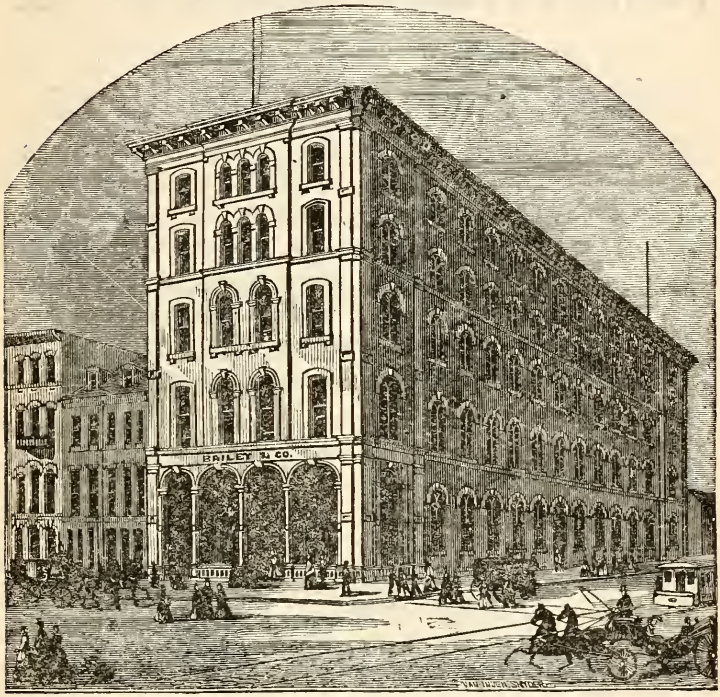
273 Jersey City Crucible Manufacturing Co., Jersey City, N. J.—Crucibles and stove polish. T 58. 105

274 Phœnix Manufacturing Co., Taunton, Mass.—Crucibles and stove polish. T 58. 105

275 Webb, Robert, Boston, Mass.—Stove polish; crude and prepared plumbago. T 60. 105

ESTABLISHED 1830.

BAILEY & COMPANY,



Jewelers and Silversmiths,

DIAMONDS, WATCHES, CLOCKS, BRONZES,

Chestnut and Twelfth Sts.,

PHILADELPHIA.

SUMMER EXCURSIONS.

THE

PENNSYLVANIA RAILROAD CO.

Have arranged for the Centennial Year a system of

SUMMER EXCURSION ROUTES,

More comprehensive and complete than was ever before presented to the American people. These Routes reach EVERY PLACE OF INTEREST OR ATTRACTION IN THE EASTERN, MIDDLE, AND SOUTHERN STATES, AND THE DOMINION OF CANADA, including

NIAGARA FALLS, THE THOUSAND ISLANDS, WATKINS GLEN, SARATOGA, THE WHITE MOUNTAINS, NEWPORT, LAKE GEORGE, ALL THE VIRGINIA SPRINGS, and many others.

VISITORS TO THE CENTENNIAL EXHIBITION

Will find the lines of this Company available for reaching, within a few hours' time and at very small outlay, such famous resorts as

CAPE MAY, LONG BRANCH, THE DELAWARE WATER GAP, BEDFORD SPRINGS, GETTYSBURG, MINNEQUA SPRINGS, KANE, RENOVO,

And hundreds of beautiful villages and towns in the mountains of Pennsylvania, where the accommodations are excellent and the scenic attractions all that can be desired.

THE PENNSYLVANIA RAILROAD CO.

Devote special attention to this Summer Travel. The construction and equipment of their lines render travel over them thoroughly enjoyable, and the tickets issued afford every facility for recreation, recuperation, and pleasure.

PAMPHLETS OF ROUTES can be had gratuitously at the offices of the Company in New York, Boston, Philadelphia, Baltimore, Washington, Harrisburg, Altoona, and Pittsburg, and also a handsomely illustrated book describing all prominent resorts.

FRANK THOMSON, *General Manager.*

L. P. FARMER, *Ass't Gen. Pass. Agent.*

D. M. BOYD, JR., *Gen. Passenger Agent.*

Minerals, Mineral Water, Metallurgical Products.

276 Nibbinger, Edward, Philadelphia, Pa.—Quartz paste for sharpening razors and knives. T 52. 106

277 Hand, James C., & Co., Philadelphia, Pa.—Corundum manufactured by the Pennsylvania Corundum Co. T 57. 106

278 Washington Mills Emery Manufacturing Co., Ashland, Mass.—Emery. T 57. 106

279 Boyd & Chase, New York, N. Y.—Arkansas and Washita oilstone. N 68. 106

284 U. S. Soapstone Manufacturing Co., Cincinnati, O.—Steatite. P 77. 106

285 Patten, F. H., Bath, Maine.—Feldspar and quartz, for potteries and sand paper factories. T 70. 106

286 Lehigh Whetstone Co., Allentown, Pa.—Whetstones from Lenigh mountain, near Allentown, Pa. T 57. 106

288 Coffin, Redington, & Co., New York, N. Y.—Electro selecan, a polishing powder for all fine metals, and infusorial silica from Nevada, from which the above is made.

Analysis:

Silica,	83.5
Alumina,	2.7
Water,	13.5
Loss,	.3
	——100.

T 72. 106

289 Louis, Julius, & Bro., Jeffersonville, Ind.—Hot Springs, Arkansas, and other oilstones. N 68. 106

290 Sibley, Freeman K., Waltham, Mass.—The prize medal emery and crocus cloth. (Only medals ever awarded in the world.) T 53. 106

291 Schultz, Carl H., New York, N. Y.—Carbonic acid and mineral spring waters, siphons, glass fountains, etc. T 58. 107

291*a* Jarves & Hooper, Detroit, Mich. —T 53.

a Fertilizers and animal charcoal. 107
b Glue and neat's-foot oil. 632

292 Knight & Widden, Portland Plaster Mills, Portland, Maine.—Calcined and ground land plaster. T 59. 107

293 Champion Spouting Spring, Saratoga Springs, N. Y.—Saratoga water. T 58. 107

294 Marsh & Co., Sandusky, O.—Gypsum. V 61 *to* 63. 107

295 Gettysburg Katalysine Co., Gettysburg, Pa.—Katalysine spring water. T 57. 107

296 Navassa Phosphate Co., Baltimore, Md.—Crude and ground phosphates, from Nevassa Island, West Indies; and other fertilizing materials. T 57. 107

297 Charleston, S C., Mining & Manufacturing Co., Philadelphia, Pa.—Goodrich phosphatic nodules, mined from Agassiz's Ashley fish basin, Lamb's landing, S. C. T 58. 107

298 Bolen & Byrne, New York, N. Y.—Artificial mineral waters, granular effervescing salts, siphons, etc. T 60. 107

299 Lippincott, Chas., & Co., Philadelphia, Pa.—Apparatus for dispensing aerated waters. B 38. (*Nave and Transepts.*) 107

300 Lawrence, A. R., & Co., Excelsior Park, Saratoga Springs, N. Y.—Excelsior and Union Spring Saratoga waters, and apparatus for having them on draught in their natural condition. T 70. 107

300*a* Tufts, Jas. W., Boston, Mass.—Soda water fountains. (*Nave and Transepts.*) 107

Metallurgical Products.

301 Hastings & Co., Philadelphia, Pa.—Gold leaf, foil, and bronze: silver leaf, bronze powder, etc. P 47 110

302 Wallis, Jno. G., Fulton, Ark.—Base bullion. N 55. 110

303 Cambria Iron & Steel Co., Johnstown, Pa.—Iron—pig, bloom, and muck bar, rail piles and rails; steel—Bessemer pig, and spiegeleisen, ingots, blooms, and rails. T 63. 111

303*a* Huntingdon & Broad Top Railroad Co., Philadelphia, Pa.—Pig iron. Y 56. 111

304 Wood, W. D., & Co., McKeesport Iron Works, Pittsburg, Pa.—Patent planished sheet iron. T 61. 111

305 Park Bro. & Co., Black Diamond Steel Works, Pittsburg, Pa.—Cast steel; samples of homogeneous crucible cast steel, boiler plate, and flangings. T 62. 111

305*a* Mahoning Valley Centennial Association, Youngstown, Ohio.—Pig and manufactured iron. V 63. 111

306 Rowland, James, & Co., Kensington Iron and Steel Works, Philadelphia, Pa.—Anvil brand, refined bar, band, skelp, hoop, and nut iron; plow, cultivator, and shovel steel T 64. 111

307 Wood, Alan, & Co., 519 Arch street, Philadelphia, Pa.—Manufacturers of patent planished, galvanized, and common, and charcoal bloom, sheet, and plate iron T 61. 111

307*a* Andover Iron Co., Phillipsburg, N. J.—Pig and spiegeleisen iron. T 64. 111

308 Straus, J. E., & Co., Philadelphia, Pa.—Hoop iron. P 71. 111

309 Miller, Metcalf, & Parkins, Crescent Steel Works, Pittsburg, Pa.—Crucible steel and articles manufactured therefrom. T 60. 112

309*a* Glasgow & Port Washington Iron and Steel Co., Port Washington, O.—Pig iron. W 63. 111

310 Hussey, Wells, & Co., Pittsburg, Pa.—Crucible cast steel bars, sheets, homogeneous boiler plates, railway axles, forgings, edge tools, rake teeth. T 68. 111

311 Phillips, Nimick, & Co., Sligo Iron Mills, Pittsburg, Pa.—Iron. The only manufacturers of "sligo" fire box, boiler plate, sheet and bar iron, and "Tyrone" plate, tank, sheet, and bar iron. Slates rolled one hundred inches wide. T 67. 111

312 Union Iron Co. of Buffalo, Buffalo, N. Y.—Solid wrought iron rolled beams. T 64 *and* U 60. 111

321*a* State of Indiana (by E. T. Cox, State Geologist).—Pig, bar, and railroad iron; cut nails. V 57. 111

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Metallurgical Products.

313 Otis Iron & Steel Co., Cleveland, O.—Ingots, bars, plates, and forgings of Siemen's Martin steel. T 65. III

314 Cleveland Rolling Mill Co., Cleveland, O.—Pig metals, rails, bars, etc., of iron and Bessemer or Siemen's Martin steel. T 60. III

315 South & North Alabama Railroad, Montgomery, Ala.—Iron. Y 60 *and* T 57. III

316 State of New Jersey (by Geo. H. Cook, State Geologist, New Brunswick, N. J.).—T 70.
a Iron, steel, spiegeleisen. III
b Spelter, sheet zinc, zinc white. II3

317 Peru Steel & Iron Co., Clintonville, N. Y.—Loops, blooms, billets, bars, and steel. T 63. III

317*a* Silicon Steel Co., New York, N. Y.—Silicon steel, rails, etc.; steelified iron. T 63 III

318 Washburn & Moen Manufacturing Co., Worcester, Mass.—Iron wire rods; iron and steel wire. T 63. III

318*a* Valentines & Co., Bellefonte Iron Works, New York, N. Y.—Cold blast charcoal iron. T 61. III

318*b* Youngstown Rolling Mill Co., Youngstown, Ohio.—Horse shoe, bar, hoop, and band iron, steel mixed with iron. V 61 *to* 64. III

318*c* Wick, Ridgway, & Co., Youngstown, Ohio.—Railroad iron, of all sizes. V 61 *to* 64. III

318*d* Brown, Bonnett, & Co., Youngstown, Ohio.—Pig, bar, and sheet iron. V 61 *to* 64. III

318*e* Eyhon & Lloyd, Philadelphia, Pa.—Roughing rolls, hand rounds, and squares. T 65. III

319 American Sheet & Boiler-plate Co., Cleveland, Ohio.—Plate, sheet, corrugated, galvanized, metallic tile, universal plate and agricultural iron, Bessemer or Siemen's Martin steel. T 59. III

320 Cooper, Hewitt, & Co., New York, N. Y.—Iron fluxes, blooms, pigs, rods, bars, rails, beams; chain, wire, horseshoe, and Martin steel. T 66. III

321 Hanging Rock Iron Region Furnaces (Chas. Campbell, Commissioner), Ironton, Ohio.—Pig iron, with articles manufactured therefrom. T 69. III

322 Beale, Horace A., Parkesburg, Pa.—Charcoal and puddled iron for boiler tubes and plates, muck bar of superior quality, and hollow bottom plates for puddling furnace. T 66. III

323 Clark, Wm., & Co., Pittsburg, Pa.—Hoop, band, and scroll iron. T 66. III

324 Reese, Graff, & Woods, Pittsburg, Pa.—Wrought iron of all descriptions; cast and special steel; tool steel, spring steel, plow steel, machinery and agricultural steel, fire steel, steel hoop, steel cotton ties, horse and mule shoes, steel toe calks, steel boiler-plate. T 66. III

325 Andrews Brothers, Youngstown, O.—Bessemer, foundry, and mill pig iron. V 61 *to* 64. III

326 McCullough Iron Co., Philadelphia, Pa.—Bloom and refined cleaned sheet iron; charcoal blooms. Manufacturers of "Galvanized," "Best Bloom," "Best Refined," "Harvey's cleaned Sheet Iron," cleaned iron for stamping purposes, leaded roofing plates, corrugated iron, black and galvanized. P 70. III

327 Moorhead & Co., Soho Iron Mills, Pittsburg, Pa.—Galvanized and black sheet iron; roofing and ceiling irons. T 66. III

328 Henderson, James, Hamburg, Pa.—Wrought iron made by the Henderson process. T 59. III

329 Brown & Co., Wayne Iron & Steel Works, Pittsburg, Pa.—Cold-blast charcoal metal, blooms, boiler plate, bars; agricultural irons. T 62. III

331 Edgar Thomson Steel Co. (limited), Pittsburg, Pa.—Bessemer steel rails, billets, blooms, and ingots. T 66. III

333 Lucy Furnace Co., Pittsburg, Pa.—Pig metal, etc. T 66. III

334 Carnegie Bros. & Co., Pittsburg, Pa.—Wrought iron beams, channels, bridge iron, etc. T 66. III

335 Wilson, Walker, & Co., Pittsburg, Pa.—Railroad car forgings. T 66. III

336 Keystone Bridge Co., Pittsburg, Pa.—Raritan Bay pivot bridge, weldless chord bars, wrought iron, tubular sectional columns. T 66. III

337 United States Corrugated Elbow Co., Cincinnati, Ohio.—Stovepipe elbow machine; stovepipe elbows. T 61. III

338 Gregory & Co., Jersey City, N. J.—American cast steel. T 59. III

339 Duncan, John W., Philadelphia, Pa.—Pig metal. T 72. III

340 Tuscarawas Coal & Iron Co., Cleveland, Ohio.—Pig iron. T 71 *and* V 63. III

341 Rhodes & Co., Cleveland, Ohio.—Bessemer car-wheel and malleable charcoal irons. T 71 *and* V 63. III

342 Woodstock Iron Co., Anniston, Ala.—Hot-blast, cold-blast, and spiegeleisen iron, charcoal. T 63. III

343 Middleton, C. W. & H. W., Philadelphia, Pa.—Collective exhibit of Fort Pitt Iron & Steel Works, Soho Iron Mills, Solar Hoop Iron Mills, Philadelphia Iron & Steel Co., Parkesburg Iron Works, Corydon Winch, Van Alen & Co., Cumberland Tube Works, Danville Iron Co. and Star Chain and Nail Works—iron and steel. T 65 *to* 66. III

344 Crane Iron Co., Catasauqua, Pa.—Foundry and forge pig iron; cinder. T 64. III

345 Alexander, John S., Philadelphia, Pa.—Bayonet spade. P 68. III

346 Singer, Nimick, & Co., Pittsburg, Pa.—Saw, tool, plow, machinery, safe, and boiler steel; steel railway axles and springs. T 69. III

346*a* Selma & Alabama Railroad, Montgomery, Ala.—Iron. Y 60. III

347 Magnetite Iron Co., Philadelphia, Pa.—Bessemer ore products. T 69. III

348 Crab Orchard Iron Co., Philadelphia, Pa.—Samples of iron and steel. T 69. III

For location of objects, indicated by letter and figure, see Key to Notation, p. 25; ground plan, p. 26

Metallurgical Products.

348*a* Chester Iron Co., Chester, N. J.—Iron ore. T 64. III

349 Danville Iron Co., Danville, Pa.—Railroad iron. T 66. III

350 Winch, Corydon, Philadelphia, Pa.—Wrought iron spikes. T 66. III

351 Philadelphia Iron & Steel Co., Philadelphia, Pa.—Special shapes and manufactures of iron. T 66. III

351*a* Ward, L. B., Niles, O.—Common boiled iron. V 61 *to* 63. III

352 Cumberland Nail & Iron Co., Bridgeton, N. J.—Wrought iron pipe. T 66. III

353 Davis, O. W., jr., Bangor, Me.—Charcoal pig iron, fluxes, cinders; articles made in part from Katahdin iron. T 69. III

354 Durham Iron Co., Riegelsville, Pa.—Flux, pig iron, and cinders. T 64. III

355 Glendon Iron Co., Easton, Pa.—Flux, slag, and pig iron. T 64. III

356 Selma, Rome, & Dalton Railroad, by S. W. Baird, Cincinnati, O.—Charcoal pig iron, slag and charcoal, spiegel, car wheels. X 64. III

359 Northampton Furnace, worked by the Bethlehem Iron Co., Bethlehem, Pa.—Pig iron, flux, slags. T 64. III

360 Lehigh Iron Co., Allentown, Pa.—Flux, slag, and pig iron. T 64. III

361 Bethlehem Iron Co., Bethlehem, Pa.—Charges and products of iron, Bessemer, and spiegeleisen furnaces; products from Bessemer steel mill. T 64. III

362 Emaus Iron Co., Allentown, Pa.—Flux, slag, and iron. T 64. III

363 Coleraine Iron Co., Northampton county, Pa.—Pig iron. T 64. III

364 Thomas Iron Co., Hokendauqua, Pa.—Iron and flux. T 64. III

365 Allentown Rolling Mill Co., Allentown, Pa.—Flux, iron, and slag, fist-plate bolts, nuts, spikes, rivets, etc. T 64. III

366 Allentown Iron Co., Allentown, Pa.—Pig iron. T 64. III

367 Lehigh Valley Iron Co., Copley, Pa.—Pig iron, cinders. T 64. III

368 Carbon Iron Co., Parryville, Pa.—Flux, slag, and pig iron. T 64. III

369 Saucon Iron Co., Hellertown, Pa.—Pig iron. T 64. III

370 Catasauqua Iron Co., Catasauqua, Pa.—Rolled iron and steel, iron and steel bars bent hot and cold and fractured. T 64. III

371 Lehigh Zinc Co., Bethlehem, Pa.—Metallic and sheet zinc, zinc oxide. T 64. III

372 Stewart & Co., South Easton, Pa.—Round, square, and triangular iron wire. T 64. III

373 Gough, Edward, Allentown, Pa.—Turned rolls. T 65. III

374 Bay State Iron Co., Boston, Mass.—Homogeneous iron boiler plates and iron. T 64. III

375 Co-operative Iron & Steel Works, Danville, Pa.—T and street passenger railroad iron. T 63. III

376 Shalter, R. M., Carrick Furnace, Franklin county, Pa.—Cold-blast pig iron. T 63 III

377 Philadelphia & Reading Railroad Co., Philadelphia, Pa.—Rails. T 72. III

378 Mintzer, S. J. W., Philadelphia, Pa.—Silicon steel. T 63. III

379 Shelby Iron Co., Shelby Iron Works, Ala.—Charcoal pig iron, chilled castings, wire rods, cotton ties. T 71. III

380 Chrome Steel Co., Brooklyn, N. Y.—Chrome steel, with samples showing tortional, tensile, and compressive strength; welded chrome steel and iron; ingredients of manufacture. T 64. III

381 Cartwright, McCurdy, & Co., Youngstown, O.—Hoop, band, and horseshoe iron and steel. V 63 *and* T 64. III

382 Burton, J. P., Massillon, O.—Iron from Massillon Furnace. V 63. III

383 Rockhill Iron & Coal Co., Philadelphia, Pa.—Pig iron. T 72. III

384 Tecumseh Iron Co., Tecumseh, Ala.—Charcoal pig iron, limestone, charcoal. T 70. III

385 Albany & Rensselaer Iron & Steel Co., Troy, N. Y.—Bessemer steel and iron rails, plates, merchant bars, axles, horseshoes, etc. T 68. III

386 Nes, Charles M., York, Pa.—Silicon steel; steel and steel capped rails. T 63. III

388 Grand Tower Mining, Manufacturing, & Transportation Co., Grand Tower, Ill.—Iron ore products; cokes. T 68. III

389 Globe Rolling Mill Co., Cincinnati, O.—Specialties, Globe Norway iron and Globe refined iron. Iron, T 63. III

390 Lackawanna Iron & Coal Co., Scranton, Pa.—Steel and iron railroad bars. T 63. III

391 Passaic Rolling Mill Co., Paterson, N. J.—Rolled iron, rivets, nuts. T 64. III

392 Cox, Justice, jr., & Co., Philadelphia, Pa.—Pig, bar, sheet, tank, pipe, and angle iron; spikes, railway car axles. T 70. III

394 Rogers, J. & J., Iron Co., Ausable Forks, N. Y.—Round and square iron and charcoal billets for steel, from Palmer ore. T 62. III

395 Vesuvius Furnace, Etna Iron Works, Ironton, Ohio.—Pig iron, cold blast charcoal car-wheel iron. T 68. III

396 Etna Furnace, Etna Iron Co., Hanging Rock, O.—Pig iron, cold-blast charcoal car-wheel iron. T 68. III

397 Alice Furnace, Etna Iron Works, Hanging Rock, O.—Pig iron, "Whitwell ovens," and Ferry process. T 68. III

397*a* Briar Hill Iron & Coal Company, Youngstown, O.—Pig iron of various grades. V 61 *to* 64. III

398 Blanche Furnace, Etna Iron Works, Ironton, Ohio.—Pig irons, Whitwell hot blast and Ferry process. T 68. III

399 Hecla Iron & Mining Co. (John Campbell, President), Ironton, O.—Pig iron, cold blast charcoal car-wheel irons. T 68. III

399*a* Struthers Iron Co., Youngstown, O.—Bessemer, foundry, and gray forge pig iron. V 61 *to* 63. III

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Metallurgical Products.

400 Monitor Furnace Co., Ironton, O.—Pig iron, cold blast charcoal car-wheel iron. T 68. III

401 Mount Vernon Furnace, Hiram Campbell & Sons, Ironton, O.—Pig iron, hot blast charcoal foundry iron. T 68. III

401*a* Brooke, E. & G., Birdsboro', Pa.—Keystone pig iron. T 67. III

402 Grant Furnace, W. D. Kelly & Sons, Ironton, O.—Pig iron, hot blast charcoal irons. T 68. III

403 Center Furnace, W. D. Kelly & Sons, Ironton, O.—Pig iron, hot blast charcoal irons. T 68. III

404 Howard Furnace Charcoal Iron Co., Ironton, O.—Pig iron, hot blast charcoal irons. T 68. III

405 Buckhorn Furnace, Charcoal Iron Co., Ironton, O.—Pig iron, hot blast charcoal irons. T 68. III

406 Olive Furnace, Campbell, McGugin, & Co., Ironton, O.—Pig iron, hot blast charcoal iron. T 68. III

407 Lawrence Furnace Co., Ironton, O.—Pig iron, hot blast charcoal iron. T 68. III

408 Pine Grove Furnace, Means, Kyle, & Co., Hanging Rock, O.—Pig iron, hot blast charcoal irons. T 68. III

409 Ohio Furnace, Means, Kyle, & Co., Hanging Rock, O.—Pig iron, hot blast charcoal iron. T 68. III

410 Ironton Furnace Iron and Steel Co., Ironton, O.—Pig iron, Player hot blast. T 68. III

411 Belfont Iron Works, Ironton, O.—Pig iron, Player hot blast. T 68. III

412 Washington Furnace, Union Iron Co., Portsmouth, O.—Pig iron, hot blast charcoal iron. T 68. III

413 Scioto Furnace, L. C. Robinson & Co., Portsmouth, O.—Pig iron, hot blast charcoal iron. T 68. III

414 Bloom Furnace, John Paul & Co., Portsmouth, O.—Pig iron, hot blast charcoal iron. T 68. III

415 Clinton Furnace, W. I. Bell, Wheelersburg, O.—Pig iron, hot blast charcoal iron. T 68. III

416 Buckeye Furnace Co., Jackson, O.—Pig iron, hot blast charcoal iron. T 68. III

417 Cambria Furnace, D. Lewis & Co., Samsonville, O.—Pig iron, hot blast charcoal iron. T 68. III

418 Jackson Furnace, L. P. N. Smith's heirs, Sciotoville, O.—Pig iron, hot blast charcoal iron. T 68. III

419 Jefferson Furnace Co., Oak Hill, O.—Pig iron; cold blast charcoal car-wheel and machinery iron. T 68. III

420 Orange Iron Co., Jackson, O.—Pig iron, hot blast Jackson county stone coal iron. T 68. III

421 Star Furnace Co., Jackson, O.—Pig iron, hot blast Jackson county stone coal iron. T 68. III

422 Huron Iron Co., Jackson, O.—Pig iron, hot blast Jackson county stone coal iron. T 68. III

423 Tropic Furnace Co., Jackson, O.—Pig iron, hot blast Jackson county stone coal iron. T 68. III

424 Globe Iron Co., Jackson, O.—Pig iron, hot blast Jackson county stone coal iron. T 68. III

425 Fulton Furnace, Globe Iron Co., Jackson, O.—Pig iron, hot blast Jackson county stone coal iron. T 68. III

426 Ophir Furnace Co., Jackson, O.—Hot blast pig iron. T 68. III

427 Milton Furnace & Coal Co., Wellston, O.—Pig iron, Jackson county softener iron. T 68. III

428 Wellston Coal & Iron Co., Wellston, O.—Pig iron, Jackson county stone coal iron. T 68 III

429 Lincoln Furnace, I. M. McGhee's estate, Rud's Mills, O.—Pig iron, cold blast charcoal iron. T 68. III

430 Eagle Furnace, L. C. Damarin & Co., Rud's Mills, O.—Pig iron, hot blast charcoal iron. T 68. III

431 Richland Furnace Co., Richland P. O., O.—Pig iron, hot blast charcoal iron. T 68. III

432 Hope Furnace, L. C. Damarin & Co., Portsmouth, O.—Pig iron, hot blast charcoal iron. T 68. III

433 Hamden Furnace, L. C. Damarin & Co., Portsmouth, O.—Pig iron, hot blast charcoal iron. T 68. III

434 Vinton Furnace, Bancroft, Rader, & Co., Vinton Station, O.—Pig iron, hot blast bituminous coal and coke irons. T 68. III

435 Keystone Furnace Co., Portsmouth, O.—Pig iron, hot blast charcoal iron. T 68. III

436 Monroe Furnace, Union Iron Co., Portsmouth, O.—Pig iron, hot blast charcoal iron. T 68. III

437 Latrobe Furnace, Bundy & Cobb, Berlin Cross-roads, O.—Pig iron, hot blast charcoal iron. T 68. III

438 Logan Furnace Co., Logan county, O.—Pig iron, hot blast charcoal iron. T 68. III

439 Union Furnace, Brooks & Hueston, Haydensville, O.—Pig iron, hot blast charcoal iron. T 68. III

440 Pascal Iron Works, Philadelphia, Pa.—Cast iron work for Main Exhibition Building. III

441 Lewis, Oliver, & Phillips, Pittsburg, Pa.—Iron in merchant bars and odd shapes. T 64. III

442 Roberts, Henry, Newark, N. J.—Iron, Bessemer steel, and cast steel wire. N 69. III

443 Andrews, Hitchcock, & Co., Cleveland, O.—Merchant bar and sheet iron V 61 to 64. III

444 Mount Savage Furnace, Lexington & Carter county Mining & Manufacturing Co., Lexington, Ky.—Pig iron, hot blast charcoal iron. T 68. III

444*a* Himrod Furnace Co., Youngstown, O.—Bessemer, foundry, and forge pig iron. V 61 *to* 64. III

For location of objects, indicated by letter and figure, see Key to Notation, p. 25; ground plan, p. 26.

Metallurgical Products.

445 Buffalo Furnace, Culbertson, Earhart, & Co., Greensburg, Ky.—Pig iron, hot and cold blast charcoal iron. T 68. 111

445*a* Andrews & Hitchcock, Youngstown, O.—Scotch, foundry, forge, and mill iron. V 61 *to* 64. 111

446 Hunnewell Furnace, Eastern Kentucky Railway Co., Riverton, Ky.—Pig iron, hot blast charcoal foundry iron. T 68. 111

446*a* Liking Iron Co., Newark, O.—Pig iron. V 61 *to* 64. 111

447 Pennsylvania Furnace, Eastern Kentucky Railway Co., Riverton, Ky.—Pig iron, hot blast charcoal foundry iron. T 68. 111

448 Charlotte Furnace Co., Riverton, Ky.—Pig iron, hot blast charcoal foundry iron. T 68. 111

449 Laurel Furnace, Robert Scott & Co., Riverton, Ky.—Pig iron, cold blast charcoal car-wheel iron. T 68. 111

450 Gallia Furnace, Norton, Campbell, & Co., Portsmouth, O.—Pig iron, hot blast charcoal iron. T 68. 111

451 Raccoon Mining and Manufacturing Co., Riverton, Ky.—Pig iron, hot and cold blast charcoal iron. T 68. 111

452 Ashland Furnace, Lexington & Big Sandy Railroad Co., Ashland, Ky.—Pig iron, bituminous coal, and Player hot blast. T 68. 111

453 Bellefonte Furnace, Means, Russell, & Means, Ashland, Ky.—Pig iron, hot blast charcoal foundry iron. T 68. 111

454 Norton Iron Works, Ashland, Ky.—Pig iron, nail plate, nails. T 68. 111

455 Buena Vista Furnace, Means & Co., Ashland, Ky.—Pig iron, hot blast charcoal iron. T 68. 111

456 Trigg Furnace, D. Hillman & Sons, Empire Iron Works, Ky.—Pig iron, cinders, etc.; hot blast charcoal iron. T 68. 111

457 Center Furnace, D. Hillman & Sons, Empire Iron Works, Ky.—Pig iron, hot blast charcoal iron. T 68. 111

458 Empire Iron Works, Trigg county, Ky.—Samples of boiler plate and refined charcoal iron. T 68. 111

459 Cleveland Malleable Iron Co., Cleveland, O.—Malleable iron castings and tackle blocks; fifth wheels. T 55. 111

460 Traber & Aubery, Cincinnati, O.—Broken car-wheels, chill tests, and castings from Hanging Rock pig iron; pig iron. T 68. 111

461 Hanging Rock Iron Region, Ironton, O.—Pig iron. T 68. 111

462 Sellers, William, & Co., Edgemoor Iron Co., Wilmington, Del.—Wrought and cast iron work for Main Exhibition Building. 111

463 Roberts, A. & P., Pencoyd Rolling Mills, Philadelphia, Pa.—Wrought iron work for Main Exhibition Building. 111

464 Morris, Tasker, & Co., Philadelphia, Pa.—Cast iron work for Main Exhibition Building. 111

465 Watson Manufacturing Co., Paterson, N. J.—Iron framework of the Main Exhibition Building. 111

466 Pusey, Jones, & Co., Wilmington Del.—Iron work for Machinery Hall. 111

467 State of Michigan (Jay A. Hubbell, Houghton, Mich., Superintendent of Mineral Department).—V 67.

a Pig, ingot, and manufactured iron and steel. 111

b Ingot, bar, and rolled copper in its various stages. 112

c Maps, models, stamp-mill model, etc. 120

468 Manhattan Brass Co., New York, N. Y.—Sheet brass; brass, copper, and zinc tubing; brass goods, nickel-plated oilers, etc. T 65. 112

469 Pope, Cole, & Co., Baltimore Copper Co., Baltimore, Md.—Specimens of copper mattes and slags, and refined copper; metallurgical products. T 64. 112

470 Revere Copper Co., Boston, Mass.—Copper and yellow metal sheets and bars; tinned metal for stove reservoirs; bronze cannon cast by a patented process. T 64. 112

471 Pennsylvania Lead Co., Pittsburg, Pa.—Refined pig lead from ores of Colorado and Utah. T 63. 113

472 Benedict & Burnham Manufacturing Co., Waterbury, Conn.—Sheet brass, German silver, brass tubing, rods, and wire, lamp burners, etc. T 61. 113

473 Passaic Zinc Co., Passaic, N. J.—Zinc ingots, foil, castings, and oxide; sheet zinc. T 63. 113

473*a* Crocker Bros. & Co., Taunton, Mass.—T 61.

a Copper and yellow metal. 112

b Zinc. 113

474 Holmes, Booth, & Haydens, Waterbury, Conn.—Brass and German silver wire, tubing, rivets, lamp trimmings, burners. T 61. 113

476 Matthiessen & Hegeler Zinc Co., La Salle, Ill.—Refined spelter; sheet tin to show the thickness of the common numbers. Various sizes of casks for shipment. Rolled zinc plates for galvanic batteries, lithographing, etc. T 70. 113

477 Wharton, Joseph, Camden, N. J.—Nickel goods. T 63. 114

478 Taylor, N. & G., Co., Philadelphia, Pa.—Tin plate patterns. T 62. 114

480 Scovill Manufacturing Co., Waterbury, Conn.—Sheet brass; German silver, gold and silver plated metal; lamps and trimmings; hinges, buttons, thimbles, castors, metal tubes, etc. P 67. 114

481 Ansonia Brass & Copper Co., Ansonia, Conn.—Brass and copper goods, sheet metal and wire, planished brass and copper. T 54. 114

482 Waterbury Brass Co., Waterbury, Conn., and 52 Beekman street, New York, N. Y.—Brass and German silver in sheets, rolls, wire, and tubes; brass kettles, copper and brass rivets and bolts; percussion caps, all qualities; powder flasks, shot belts and pouches; game bags, metallic eyelets, and tape measures. T 62. 114

483 Lancroft, C. E. & H. B., Fair Haven, Conn.—Sulphates of nickel, ammonia, cobalt, and aluminum. P 68. 114

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Mining Engineering.

484 Holley, Alexander L., New York, N. Y.—Exhibit relating to metallurgical engineering. (*West gallery.*) 120

485 State of New Jersey (by Geo. H. Cook, State Geologist, New Brunswick, N. J.).—Geological maps, mine maps, mine and vein models. T 70. 121

485*a* Lowe, S. B., Chattanooga, Tenn. —Map of Chattanooga iron district. X 63. 120

486 Prince, Franklin, & Bullock, E. L., Audenried, Pa.—Model of the Wharton anthracite coal vein at Beaver Brook collieries, Audenried, Pa. T 60. 121

487 Hanford, Theodore, Jersey City N. J. —Specimen of the strata of the Gravelpit Gold Mines of Ballarat, Victoria Australia. T 64. 121

488 Charleston, S. C., Mining & Manufacturing Co., Philadelphia, Pa.—Model of their works. Y 60. 121

For location of objects, indicated by letter and figure, see Key to Notation, p. 25; ground plan, p. 26

THE

American Newspaper Union.

A. J. AIKENS, President.

New York Newspaper Union, 148 and 150 Worth St., New York.	315 Newspapers,		$3.00	per line,	per week.
Chicago Newspaper Union, 114 Monroe St., Chicago.	350	"	$3.50	"	"
Milwaukee Newspaper Union, 365 East Water St., Milwaukee.	120	"	$1.25	"	"
Aikens Newspaper Union, 143 Race St., Cincinnati.	200	"	$2.00	"	"
Southern Newspaper Union, 227 Second St., Memphis, Tenn.	145	"	$1.50	"	"
St. Paul Newspaper Union, 17 Wabashaw St., St. Paul, Minn.	73	"	$ .75	"	"

THE ORIGIN OF CO-OPERATIVE NEWSPAPER ADVERTISING.

Co-operative newspaper printing, as now practised, originated in Wisconsin twelve years ago. It is termed *co-operative* for the reason that one side of each of the newspapers is printed at a central office, and the paper sent in its half-printed state to the home office, where it is completed with editorials, local news, and other matter prepared by the editor or publisher. In December, 1846, the idea of co-operation, *with advertisements*, occurred to Mr. Aikens, while yet serving his time as an apprentice, in printing the message of President Polk on one side of a country newspaper of New England at Boston, and the other half being printed at the local office.

Mr. A. J. Aikens, a practical printer and business man, conceived the idea of reducing the cost of ready-printed paper, as it is now termed, to country publishers, by making an agreement with them to use a certain space in each of their papers for advertisements that he might procure. This plan of co-operation he put into practice twelve years ago, at the office of Cramer, Aikens & Cramer, Milwaukee. It at once became successful, leading to the establishment of co-operative newspaper printing-offices in Chicago, New York, St. Louis, Cincinnati, Memphis, St. Paul, and other places. There are now over two thousand newspapers printed upon the co-operative plan in the United States and Canadas, and the number is constantly increasing, it having more than doubled in the last five years. The enterprise is no longer an experiment, but an established success, and the system is one yielding manifold advantages to advertisers as well as to local publishers.

The American Newspaper Union

Is essentially national. The papers represented in it are located in all the States of the Union and in nearly five hundred county seats. They circulate over the whole area of the country from Maine to Colorado, distributing at least *one hundred copies every year to each square mile of the settled portions of the United States.*

Although, as a whole, the Union List is national, covering all sections, it is so made up of different members as to be susceptible of easy division into sections—East, Middle, West, South. The distribution of the papers is as follows:

New England	78	Illinois	117	Nebraska	15
New York	101	Michigan	86	Missouri	17
New Jersey	27	Wisconsin	98	Georgia	10
Pennsylvania	65	Tennessee	29	Alabama	32
Virginia	24	Kentucky	29	Louisiana	11
No. and So. Carolina	24	Minnesota	79	Mississippi	29
Ohio	122	Iowa	85	Other States	46
Indiana	81				

AGGREGATE CIRCULATION.

The circulation of these papers is large and constantly increasing. It is larger than the circulation of any other lists or combinations of country papers in the United States—the last aggregate weekly circulation being *seven hundred thousand seven hundred and thirty copies* (700,730).

SEND TO EITHER OFFICE FOR A CIRCULAR.

HEALTH! BEAUTY!!

Strong, Pure, and Rich Blood, Increase of Flesh and Weight, Clear Skin, and Beautiful Complexion secured to all through

DR. RADWAY'S SARSAPARILLIAN RESOLVENT

Every drop of the Sarsaparillian Resolvent communicates through the Blood, Sweat, Urine, and other fluids and juices of the system the vigor of life, for it repairs the wastes of the body with new and sound material. Scrofula, Consumption, Glandular Disease, Ulcers in the Throat, Mouth, Tumors, Nodes in the Glands and other parts of the system, Sore Eyes, Strumous Discharges from the Ears, and the worst forms of Skin Diseases, Eruptions, Fever Sores, Scald Head, Ring Worm, Salt Rheum, Erysipelas, Acne, Black Spots, Worms in the Flesh, Tumors, and all Weakening and Painful Discharges and Night Sweats are within the curative range of this wonder of Modern Chemistry, and a few days' use will prove to any person using it for either of these forms of disease, its potent power to cure them. If the patient, daily becoming reduced by the wastes and decomposition that are continually progressing, succeeds in arresting these wastes, and repairs the same with new material, made from healthy blood, and this the Sarsaparillian will and does secure, a cure is certain; for, when once this remedy commences its work of purification and succeeds in diminishing the loss of wastes, its repairs will be rapid, and every day the patient will feel himself growing better and stronger, the food digesting better, appetite improving, and flesh and weight increasing. Not only does the SARSAPARILLIAN RESOLVENT excel all known remedial agents in the cure of Chronic, Scrofulous, Constitutional, and Skin Diseases, but it is the only positive cure for Kidney, Bladder, and Urinary Diseases, Gravel, Diabetes, Dropsy, Stoppage of Water, Incontinence of Urine, Bright's Disease, Albuminaria, and in all cases where there are brickdust deposits, or the water is thick, cloudy, mixed with substance like the white of an egg, or threads like white silk, or there is a morbid, dark, bilious appearance, and white bonedust deposits, and when there is a pricking, burning sensation when passing water, and pain in the Small of the Back along the Loins.

Tumor of 12 years' growth cured by Radway's Resolvent.

BEVERLY, MASS., July 18th, 1869.

DR. RADWAY: I have had Ovarian Tumor in the ovaries and bowels. All the doctors said "*there was no help for it.*" I tried everything that was recommended, but nothing helped me. I saw your Resolvent, and thought I would try it, but *had no faith* in it, because I had suffered for TWELVE YEARS. I took *six bottles of the Resolvent*, one box of Radway's Pills, and used two bottles of your READY RELIEF, and there is not a sign of a tumor to be *seen or felt*, and I feel BETTER, SMARTER, and happier than I have for twelve years. The worst tumor was in the left side of the bowels, over the groin. I write this to you for the benefit of others. You can publish if you choose. * * * * HANNAH F. KNAPP.

R. R. R.

RADWAY'S READY RELIEF

Cures the worst pains in from one to twenty minutes. Not one hour after reading this advertisement need any one suffer with pain. Radway's Ready Relief is a cure for every pain. It was the first and is *THE ONLY PAIN REMEDY* that instantly stops the most excruciating pains, allays Inflammations, and cures Congestions, whether of the Lungs, Stomach, Bowels, or other glands or organs, by one application, *in from one to twenty minutes*. No matter how violent or excruciating the pain the Rheumatic, Bedridden, Infirm, Crippled, Nervous, Neuralgic, or prostrated with disease may suffer,

RADWAY'S READY RELIEF

Will afford instant ease. Inflammation of the Kidneys, Inflammation of the Bladder, Inflammation of the Bowels, Congestion of the Lungs, Sore Throat, Difficult Breathing, Palpitation of the Heart, Hysterics, Croup, Diphtheria, Catarrh, Influenza, Headache, Toothache, Neuralgia, Rheumatism, Cold Chills, Ague Chills. The application of the READY RELIEF to the part or parts where the pain or difficulty exists will afford ease and comfort. Twenty drops in a half tumbler of water will, in a few moments, cure Cramps, Spasms, Sour Stomach, Heartburn, Sick Headache, Diarrhœa, Dysentery, Colic, Wind in the Bowels, and all Internal Pains. Travelers should always carry a bottle of RADWAY'S RELIEF with them. A few drops in water will prevent sickness or pains from change of water. It is better than French Brandy or Bitters as a stimulant.

FEVER AND AGUE.

FEVER AND AGUE cured for FIFTY CENTS. There is not a remedial agent in this world that will cure Fever and Ague and all other Malarious, Bilious, Scarlet, Typhoid, Yellow, and other Fevers (aided by RADWAY'S PILLS) as quick as RADWAY'S READY RELIEF. Fifty cents per bottle.

DR. RADWAY'S PILLS,

Perfectly tasteless, elegantly coated, for the cure of all Disorders of the Stomach, Liver, Bowels, Kidneys, Bladder, Nervous Diseases, Headache, Constipation, Costiveness, Indigestion, Dyspepsia, Biliousness, Bilious Fever, Inflammation of the Bowels, Piles, and all Derangements of the Internal Viscera. Warranted to effect a Positive Cure. RADWAY'S PILLS will free the system from all the above-named disorders. Price, 25 cents per box.

Read FALSE AND TRUE. Send one letter stamp to RADWAY & Co., No. 32 Warren Street, New York. Information worth thousands will be sent you.

GREAT BRITAIN.

(*North of Nave, Columns 23 to 38.*)

Minerals, Ores, Stone, Mining and Metallurgical Products.

Minerals, Ores, Stone, Mining Products.

1 **West Cumberland Iron & Steel Co.** (limited), Workington, Cumberland.
a Iron ores. 100
b Coal and coke. 101
c Limestone. 103

1*a* **Whitwell, Thomas,** Stockton-on-Tees.—Cumberland ores. 100

2 **Wigan Coal & Iron Co.** (limited), Wigan, Lancashire, England.—Cannel and gas coal. 101

3 **Penrose & Richards,** Swansea, South Wales.—Coke fuel. 101

4 **Dixon, Frederick,** London.—Patent fuel. 101

5 **Dudgeon, Arthur,** Westminster, London.—Peat fuel, manufactured by the Irish Peat Fuel Co. 101

6 **Lindley, Robert Charles,** Mansfield, Nottinghamshire.—Stones from the Mansfield quarries. 102

7 **Cwmorthin Slate Co.** (limited), Portmadoc, North Wales. — Roofing slates. 102

8 **Hunter, James,** Aberdeen, Scotland. —Red polished granite monument. 102

9 **Macdonald, Field, & Co.,** Aberdeen Granite Works, Aberdeen, Scotland.—Polished red granite monument. 102

10 **Pen-yr-orsedd Slate Quarry Co.** (limited), Carnarvon, North Wales.—Roofing slates, slate slabs, cisterns, ridges for roofs, billiard slabs, slate partly manufactured. 102

11 **Shearer, Smith, & Co.,** Dalbeattie Granite Quarries, Scotland.—Scotch polished granite, and street paving blocks. 102

12 **Bessbrook Granite Works,** Bessbrook, Ireland.—Blue and gray Irish granites in headstones, monuments, and building work. 102

13 **Great North of Scotland Granite Co.** (limited), Peterhead, Scotland.—Monumental pedestal and vase in polished red granite. 102

13*a* **Campbell, Hugh, & Son,** Newry.—Polished granite. 102

14 **Hollick & Co., Greenwich, London.** —Portland cement. 103

15 **Patent Selenitic Cement Co.** (limited), London.—Method of preparing lime for mortar, for plastering and brickwork, and also for concrete. 103

16 **Wouldham Cement Co., Wouldham-on-the-Medway,** Kent, England.—Portland cement and its ingredients in different stages of manufacture. Concrete blocks and other objects made therefrom. 103

17 **Lavers, Alfred Hamilton, London.**—Portland cement, test blocks, cements, plaster of Paris, whiting. 103

17*a* **Busse, G., & Co., London.** — Cement. 103

18 **Francis & Co., Cliffe Creek, Rochester.**—Cements, cement concrete, parian scagliola, and decorated parian. 103

19 **Grays Chalk Quarries Co.** (limited) Grays, Essex.
a Chalk, whiting, kilndried chalk, gilders' whiting. 103
b Flint. 106

20 **Eastwood & Co.** (limited), London.—Portland cement. 103

21 **Pike, William Joseph, Wareham,** Dorsetshire.—Clays. 104

22 **Harrison, George King, Lye & Brettell Lane Fire Clay Mines & Brick Works,** Stourbridge, England.—Stourbridge fire clays. 104

23 **Dunn, Robert, & Co., St. Austell,** Cornwall.—China clay, in its raw material; samples for potting, bleaching, paper manufacturing, etc 104

24 **Oakey, John, & Sons, Wellington Mills,** London.—Crude emery stone; grain emery; flour emery. 106

24*a* **Star Plate & Universal Polishing Powder Co., London.**—Plate and polishing powder. 106

Metallurgical Products

25 **Johnson, Matthey, & Co., London.** —Articles in platinum; rare and precious metals. 110

26 **Wigan Coal & Iron Co.** (limited), Wigan, Lancashire.—Hematite, foundry, and forge pig iron. 111

27 **Great Western Iron Co., Soudley** Newnham.—Pig iron 111

28 **West Cumberland Iron & Steel Co.** (limited), Workington, Cumberland.—Pig iron, spiegeleisen, granulated blast furnace slag, Bessemer steel in the ingot; steel forgings, rails and rail sections, boiler and bridge plates, railway chairs, etc.; samples illustrating the testing of steel, and its metallurgy. 111

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45

Metallurgical Products.

29 **Smith, Frederick, & Co.,** Caledonia Works, Halifax, Yorkshire.—Rope, rigging, telegraph, card, reed, and bonnet wire; iron in its various stages of manufacture into wire. 111

30 **Houghton, William Dickson,** Warrington.—Wire for special and general purposes. 111

30*a* **Tayler, D. F., & Co., New Hall** Works, Birmingham.—Iron, steel, brass, and copper wire. 111

31 **Edge & Sons, Coalport Works,** Shropshire.—Wire ropes and chains for mining and engineering purposes. 111

31*a* **Hawksworth, Ellison, & Co.,** Carlisle Works, Sheffield.—Steel, and articles made therefrom. 111

32 **Ash & Lacy, Globe Works,** Staffordshire.—Galvanized, tinned, plain, and corrugated iron sheets; perforated zinc, metals, etc. 111

32*a* **Ward & Payne, Sheffield.**—Steel. 111

32*b* **Whitwell, Thomas,** Stockton-on-Tees.—Pig iron. 111

33 **Cammell, Charles, & Co.** (limited), Cyclops Steel & Iron Works, Sheffield.—Rolled iron armor plates. 111

34 **Siemens, Charles William,** London.—Specimens of iron and steel. 111

34*a* **Jessop, William, & Sons** (limited), Sheffield.—Steel in bars, sheets, and large and small plates. 111

34*b* **Hatton, Sons, & Co., Bilston,** Staffordshire.
- *a* Charcoal sheet iron. 111
- *b* Charcoal tin plates. 113

35 **Baldwin, E. P. & W., Wilden** Works, near Stourport.
- *a* Button and sheet iron black plates. 111
- *b* Tin and terne plates; tinned sheets. 113

35*a* **Warrington Wire Rope Works,** Liverpool.—Wire ropes, cord, etc. 111

36 **Brown, John, & Co.** (limited), Atlas Steel & Iron Works, Sheffield.—Armor plates; naval engineering. (*In Machinery Hall.*) 111

37 **Swansea Tin Plate Co., The Tin & Terne Plate Manufacturers,** Swansea Tin Plate Works, Swansea.—Tin and terne plates. 113

38 **Nash, Henry, & Co.,** Liverpool.—Tin and terne plates, black plate, and patent continuous roofing terne plate. 113

39 **Governor & Company of Copper** Miners in England, London.—Tin and terne plates. 113

40 **Morewood, E., & Co., Llanelly.**
- *a* Tin and terne plates. 113
- *b* Machines for manufacturing tin and terne plate, and galvanized sheet iron. 512

41 **Phosphor Bronze Co.** (limited), London.—Phosphor bronze tools, locks, keys, tubes, wire, sheet, steam fittings, parts of machinery. 114

(*N. B. English Exhibits in this department are also installed in Agricultural Hall, and catalogued in that volume.*)

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

NEW ZEALAND.

(*North of Nave, Columns 10 to 17.*)

Stone, Mining Products, Metallurgical Products.

Minerals, Ores, Stone, Mining Products.

1 Parapara Iron & Coal Co., Nelson.
a Brown hematite ore. 100
b Coal from the Aorere river. 101
c Limestone used as a flux for hematite ore. 103

2 Johnstone Bros., Nelson.—Hematite iron ore. 100

3 Nelson Committee, Nelson.
a Iron, plumbago, galena, zinc blende, copper, antimony, and argentiferous lead ores. 100
b Coal from Cealbrookdale, Mount Rochfort, and Reefton. 101
c Marble from Ruatanuka, Golden Bay. 102
d Porcelain clays from Pakawau and Ruatanuka; steatite from Golden Gully, Collingwood. 104

4 Louisson, T. B., Nelson.—Iron ore, calcined iron ore. 100

5 Washbourn, W. E., Nelson.—Argentiferous lead ore. 100

6 Taranaki Committee.
a Titanic iron sand, older tertiary marl, trachyte pebble, trachyte with crystals of hornblende, trachyte cast, hornblende, obsidian, nephrite, taranakite, carnelian. 100
b Lignite from Urenui. 101
c Potters' clay from Urenui. 104

7 Colonial Museum, Wellington.—James Hector, Director.
a Collection of minerals, containing magnetic iron, hematite, chrome, copper, lead, zinc, and manganese ores. 100
b Specimens illustrating the classification of New Zealand coals; petroleums from Sugar Loaf Point, Waiapu, Waipawa. 101
c Marble from Collingwood, Nelson. 102
d Steatite from Parapara Valley, Nelson. 104

8 Kennedy Brothers, Nelson.
a Coal from the Brunner Mine, and coke manufactured from it. 101
b Raw and ground fire clay. 104

9 Albion Coal Co., Nelson.—Coal from Ngakauau. 101

10 Reid, Alexander W., Canterbury.—Coal from Kowai Pass. 101

11 Oakden, J. J., Canterbury.—Anthracite coal from Lake Coleridge. 101

12 Rowley, Wilson, & Co., Otago.—Coal from Shag Point, Palmerston. 101

13 Ross, A., Poverty Bay, Auckland.—Petroleum. 101

14 Wilson, W., Christchurch.—Hewn white and yellow limestone. 102

Metallurgical Products.

15 New Zealand Commissioners.—Specimens of alluvial gold and gold-bearing quartz from Auckland, Westland, and Otago, collected by the Bank of New Zealand. 110

16 Government of New Zealand.—Specimens of alluvial gold from Nelson and Westland, and of auriferous quartz from the west coast; specimens of alluvial gold from Otago; bars of melted and refined gold; bars of chloride of silver, and silver; model representing gold exported from New Zealand 1862–75. 110

17 Nelson Committee.—Specimens of auriferous quartz from Reefton. 110

18 Reefton Committee.—Specimens of auriferous quartz from the Inangahua and Lyell districts, Nelson. 110

19 Tolhurst, George E., Bank of New Zealand, Wellington.—Models of gold ingots. 110

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

NEW SOUTH WALES.

(*North of Nave, Columns 13 to 15.*)

Minerals, Metallurgical Products, Mining Engineering.

Minerals, Ores, Stone, Mining Products.

1 McCallum, Argyle, Yaas.—Copper and lead ores from Woolgarloo Mine; iron ore from Bogolong. 100

2 Stuart, Seymour C.—Auriferous quartz from Adelong; lode and stream tin ore. 100

3 King, P. G., Goonoo.—Sulphuret of antimony, from Nundle. 100

4 Howard, John, Sofala.—Antimony, from Crudine creek. 100

4*a* Dewhurst, Arthur, Tamworth.—Collection of minerals. 100

5 Coulter, Edward, Sydney.—Magnetic iron ore containing gold and copper, from Mount Lambie. 100

5*a* Cleghorn, Wm., Uralla.—Collection of minerals. 100

6 Department of Mines, Sydney.
a Mineralogical and geological collection; specimens of gold from the Southern, Western, and Northern districts; models of gold nuggets found in New South Wales; gold trophy, showing production of New South Wales. 100
b Coal trophy. 101

7 Towns & Co., Sydney.—Kerosene shale from Murrumbidgee.

8 Fountain, John, Gosford, Brisbane Water.—Iron ore from Brisbane Water. 100

9 King, P. G., Goonoo Goonoo.—Lepidodendron fossils from Goonoo Goonoo. 100

10 Wilson, W., Monaltrie, Richmond river.—Fossils. 100

11 Butchart, J. Hawkins, Sydney.—Lode and stream tin ore. 100

12 Caddell, Alfred, Sydney.—Tin ore and wash dirt from Vegetable Creek Tin Mines. 100

13 New South Wales Shale & Oil Company, Sydney.—Kerosene shale. 101

14 Towns, R., & Co., Sydney.—Kerosene shale from Murrurundi. 101

15 Browne, Thomas, Bishop's Bridge.—Sandstone from West Maitland. 102

16 Douglass, W., Sydney.—Slate from a quarry near Goulburn. 102

17 Young, John, Sydney.—Granite from Moruya; marble. 102

18 Mackintosh & Oakes, Bathurst.—Kaolin. 104

19 Warden, David, Ulladulla.—Kaolin. 104

Metallurgical Products.

19*a* Lithgow Valley Iron & Coal Co.—Iron. 111

20 New South Wales Commissioners.—Copper ingots. 112

21 Moore & Co., Sydney.—Tin ingots. 113

22 Vegetable Creek Company, Sydney.—Tin ingots. 113

23 New South Wales Commissioners.—Tin ingots, bars, and grain tin. 113

Mining Engineering.

24 Caddell, Alfred, Sydney.—Model of shaft of Vegetable Creek Tin Mine, and report, plan, and photographs. 121

25 Government Printing Office, Sydney, New South Wales.—Mines and mineral statistics. 121

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

VICTORIA.

(North of Nave, Columns 11 to 13.)

Minerals, Ores, Stone, Mining Products.

Minerals, Ores, Stone, Mining Products.

1 **Collection of Rocks, Minerals, and** Fossils, illustrative of the geology, mineralogy, and mining resources of Victoria, exhibited for, and on behalf of the Government, by R. Brough Smyth, F.G.S., F.L.S., Assoc. Inst. C.E., Secretary for Mines, and Chief Inspector of Mines for the colony. 100

a Older igneous or plutonic rocks.
b Newer igneous or volcanic rocks.
c Aqueous rocks.
d Upper silurian.
e Upper palæozoic.
f Mesozoic-carbonaceous.
g Tertiary.
h Collection of mineral specimens.
i Economic collection: auriferous quartz.
k Fac-similes of gold nuggets found in Victoria.
l Economic minerals.
m Fossil fruit.

2 **Acadia Catherine Gold Mining Company,** Sandhurst.—Golden stone. 100

3 **Bleasdale, J. I.,** Melbourne.—Collection of gems and precious stones, consisting of diamonds, blue sapphires, oriental emeralds, rubies, aqua-marines, topazes, spinels, beryls, opals, garnets, tourmalines, etc. 100

4 **Commissioners for Victoria, for the** Philadelphia Exhibition, Melbourne.—
a Fac-similes of nuggets found in Victoria, and mineralogical and geological specimens. 100
b Coal. 101
c Sawn slate, block of granite, polished marble. 102
d Limestones from Major Plains. 103
e Black clay, clay and sand; kaolin clay. 104
f Sharpening stones from Wangunyah. 106

5 **Costerfield Gold & Antimony Mining** Co., Melbourne.—Antimony ore. 100

6 **Hanckar, J. H. H.,** Melbourne.—Nickel ore from the Boa Kaine Mine New Caledonia. 100

7 **McGie, James, & Co.,** Melbourne.—Nickel ore. 100

8 **Shenandoah Gold Mining Co.,** Sandhurst.—Gold-bearing quartz. 100

9 **Mining Department of Victoria,** Melbourne.—Coal. 101

10 **Mansfield Shire Council,** Mansfield.—Polished marble, hewn sandstone. 102

11 **Arthur & Dogherty,** New Zealand.—Lithographic stone. 106

12 **Lewis & Whitty,** Fitzroy.—Knife polish. 106

13 **Hattersley, J.,** Yackandandah.—Aerated waters. 107

14 **Lyon, George,** Spring Creek, Beechworth. Lemonade, soda water, and ginger ale. 107

15 **Rowlands & Lewis,** Ballarat.—Tonic potass, soda, lithia, and seltzer waters, and ginger ale. 107

Metallurgical Products.

16 **Bright Bros. & Co.,** Melbourne.—Star antimony in ingots. 113

17 **Costerfield Gold & Antimony Mining Co.,** Melbourne.—Antimony. 113

18 **Hodgson, Richard,** Collingwood.—Star antimony, pig lead, block tin. 113

19 **Croaker, Scott, & Co.,** Melbourne.—Star antimony. 113

Mining Engineering.

20 **Smyth, R. Brough,** Department of Mines, Melbourne.—Geological maps, reports, etc. 121

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

BAHAMAS.

(*South of Nave, Columns 15 to 17.*)

Minerals, Ores, Stone, Mining Products.

Minerals, Ores, Stone, Mining Products

1 Dupuch, Joseph.—Building stone. 102
2 George, Jno. S.—Building stone. 102

BERMUDAS.

(*North of Nave, Columns 15 to 17.*)

Minerals, Ores, Stone, Mining Products.

Minerals, Ores, Stone, Mining Products.

1 Bermuda, Government of.—Top of a pillar of stalagmite, and a small stalactite from a submerged cave. 100
2 Ness, Ph.—Building stones. 102

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

QUEENSLAND.

(*North of North Avenue, Columns 10 to 15.*)

Mineral and Metallurgical Products, Mining Engineering.

Minerals, Ores, Stone, Mining Products.

1 Aplin, D.—Trophy of tin ores. 100
2 Brisbane Tin Mining Co.—Tin ores, wash dirt, etc. 100
3 Cloncurry Mine, Proprietors of.—Manganese. 100
4 Daintree, Richard.—Collection of rocks, soils, and fossils illustrative of the colony. 100
5 Foote, Alfred.—Iron ores from West Moreton. 100
6 Gregory, A. C.—Antimony ores. 100
7 Henry, Captain.—Nugget of native copper. 100
8 Hume, W. C.—Collection of tin ores. 100
9 Mount Marley Tin Mining Co.—Collection of tin ores. 100
10 Perry, Matthew.—Copper pyrites. 100
11 Staiger, C.—Antimony ores. 100
12 Tyrrell, J. de F.—Tin ores. 100
13 Wilkinson Mine, Proprietors of.—Cinnabar. 100
14 Government of Queensland.
a Copper ores, fossils, etc., from Ipswich; quartz and gold bearing stone from Gympie, Rockhampton, Ravenswood, Cawarrol, Palmer, Cloncurry, etc. 100
b Coal from Ipswich. 101
c Building stone. 102
d Plumbago. 105
15 Aberdare Mine, Proprietors of.—Coal. 101
16 Alexander, W. R.—Coal. 101
17 Allora Mine, Proprietors of.—Coal. 101
18 Bingera Mine, Proprietors of.—Coal. 101
19 Blackfellows' Creek Mine, Proprietors of.—Coal. 101
20 Bland & Wright, Perseverance Mine.—Coal. 101
21 Flagstone Creek, Proprietors of.—Coal. 101
22 Gulland & Co., Ipswich.—Coal and coke. 101
23 Rosewood Mine, Proprietors of.—Coal. 101
24 Tivoli Mine, Proprietors of.—Coal and coke. 101
25 Peak Downs Copper Mining Co.—Slab of polished malachite. 102

Metallurgical Products.

26 Government of Queensland.
a Gold, in nuggets, from Gympie, Rockhampton, Ravenswood, Cawarrol, Palmer, Cloncurry, etc. 110
b Tin in ingots. 113
27 Government of Queensland.—Refined copper. 112
28 Mount Perry Copper Mining Co.—Ingots of copper. 112
29 Peak Downs Copper Mining Co.—Trophy of copper ingots. 112
30 Bulimba Tin Smelting Co.—Refined tin, in ingots.
31 Mount Marley Tin Co.—Refined tin, in ingots. 113
32 Queensland Smelting & Assaying Co.—Trophy of tin ingots. 113

Mining Engineering.

33 Clifton Mine, Proprietors of.—Fossils, kaolin, etc., showing strata of mine. 121

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

TASMANIA.

(*South of North Avenue, Columns 13 to 15.*)

Minerals, Ores, Stone, Mining and Metallurgical Products.

Minerals, Ores, Stone, Mining Products

1 British & Tasmanian Charcoal Iron Co.—Iron ores. 100

2 Hammond, W., Hobart Town.—Bismuth, from Mount Ramsey. 100

3 Harrap, A., Launceston.—Petrified wood. 100

4 Hull, Henry J., Hobart Town.—Tin ore, from George's Bay. 100

5 Innes, J. H., Hobart Town.—Tin ore, from Rongarooma. 100

6 Just, T. C., Launceston.—Iron ores and asbestos. 100

6*a* Royal Society of Tasmania.—Topazes and beryls from Bass's Straits Island. 100

7 Smart, Dr., Hobart Town.—Gold, in quartz. 100

8 Smith, James, Launceston.—Bismuth, from Mount Ramsey. 100

9 Stanhope Company.—Tin ore. 100

10 Harcourt, James, Hobart Town.
a Iron ores. 100
b Coal from Seymour. 101

11 Hematite Iron Works, West Tamar.
a Iron ores. 100
b Blue and white marble limestone. 102

12 Lyell & Gowan, Melbourne.
a Tin ore from Mount Bischoff. 100
b Coal from river Don. 101
c Slate from Piper's river. 102
d Marble limestone from river Don. 103

13 Groom, F., Harefield.—Coal. 101

14 Hurst, J., Hobart Town.—Coal from Tasman's Peninsular. 101

15 Kermode, W. A., Mona Vale.—Gray and brown freestone. 102

16 Raynor, E., Bridgewater.—Limestone, with fossils. 102

17 Coverdale, John, Port Arthur.—Pipe clay. 104

Metallurgical Products.

18 Harcourt, James, Hobart Town.—Pig iron and castings. 111

19 Hematite Iron Works, West Tamar.—Pig iron and castings. 111

20 Mount Bischoff Tin Mining Co., Mount Bischoff.—Tin, in ingots. 113

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

INDIA.

(*North of Nave, Columns 22 to 25.*)

Minerals, Ores, Stone, Mining and Metallurgical Products.

Collections selected from the India Museum by J. Forbes Watson, M.A., M.D., LL.D., Director of the India Museum, etc.

Minerals, Ores, Stone, Mining Products.

a Iron ores and magnetic iron sand from the Madras Presidency; iron ores from the Bombay Presidency; iron ores and magnetic iron sand from the Bengal Presidency; chrome iron ores from Salem and South Arcot; manganese ores from the Madras Presidency; copper ores from Nellore, Singbhum, and Deoghur; copper pyrites from the hills of Beloochistan; malachite from Central India; lead ore from Deoghur; galena from the Malanna and Parbutti mines, and from Catloor, Karnul, Chota Nagpur, Duttiah, Hazaribagh, and Beloochistan; (stibnite antimony ore) from Shigri, Busoh, Borneo, and Sarawak; tin stone from Junk Ceylon, Malacca, Kuhun, Mergui, Tenasserim, Larut, and Johore; gold sand from Purulia, Toradanally, Dandput, Rangoon, and Ramagherry; arsenical ores from Pegu, Burmah, Tenasserim, Bengal, and Madras; sulphur from Rangoon and Shoruns. 100

b Coal from Nerbudda Coal and Iron Co., Gurrawarra, Oormoo, Chigo, and Malacca; lignite from Darjiling; petroleum and naphtha from Burmah. 101

c Limestone from South Arcot, Nellore, Tripattur, Masulipatam, and Beronda; calcite from Ranigunj; calc spar from Kabul; selenite from Ava; white mica from Salem; black mica from Behar; agalmatolite from Chota Nagpur; zeolites from Deccan; lime from Bownee, Salem, Bellary, and Soonporah. 103

d Clays, for pottery, from South Arcot, Madura, North Arcot, Sadigeri, Bangalore, and Vizianagram; powdered mica from Lahore; quartz, yellow and red ochre, fire and china clays from Madras; ball clay from Mangalore and Raepore; raw, fine white, and prepared clay, powdered marble, red lead and red ochre from Pattan; litharge from Calcutta; white lead from Punjab; white earth from Beronda; geroo from Raepore; pink and yellow earth from Paldeo; white earth from Punnah; yellow earth from Alipore; pipe clay from Singapore; red clay from Duttiah; white earth from Kotee; fullers' earth from Sind. 104

e Graphite from Caviatten Coodul, Trevandrum, Almorah, and Ceylon. 105

f Corundum from Madras, Salem, and Mysore; agates and carnelians from Cambay; gem sand from Ceylon; ruby sand from Travancore; rough garnets from Mysore and Vizianagram; calderite from Nepal; tourmaline from Nellore; epidote granite from Madras. 107

g Fibrous gypsum from Karnul; reh from Buttiana. 107

Metallurgical Products.

h Crude iron from Assam; Wootz steel; native iron; native iron with slag. 111

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

CANADA.

(*North of Nave, Columns 16 to 23.*)

Minerals, Ores, Stone, Mining and Metallurgical Products.

Minerals, Ores, Stone, Mining Products.

1 Gatling Gold Mining Co., Marmora, Ont.—Gold-bearing arsenical pyrites. 100

2 Russell, W. W., Ottawa, Ont.—Gold in quartz. 100

3 Lindsay, J. A., Toronto, Ont.—Gold, silver, and magnetic ores. 100

4 Jackfish Lake Gold Mining Co., Toronto, Ont.—Gold and silver, in quartz. 100

5 McKellar Bros., Prince Arthur's Landing, Ont.—Gold, in quartz. 100

6 McKellar, D., Prince Arthur's Landing, Ont.—Gold, in quartz. 100

7 Toronto Gold Mining Co., Toronto, Ont.—Gold-bearing arsenical pyrites. 100

8 Lockwood, W. P., St. Francois, Q.—Model of gold nugget. 100

9 Geological Survey, Canada, Q.
a Quartz, magnetic sand, and alluvial gold, models of gold nuggets, platinum, copper pyrites, native copper, magnetite, magnetic iron sand, hematite, iron ores, iron pyrites, native iron, antimony ore, galena, blende, barytes, mica, magnesite, kermesite, celestine, albite, orthoclase, asbestos, amethyst, agates, and Canadian rocks. 100
b Coal from Saskatchewan river, bituminous shale, crude and inspissated petroleum. 101
c Sandstones, marbles, marble column, dolomite, limestone, syenite, granite, gneiss, labradorite, jasper conglomerate, ornamental and polished slate, cut and polished stones. 102
d Hydraulic cement, gypsum. 103
e Clay, fire clay, clay for moulding, river and moulding sand, soapstone. 104
f Graphite. 105
g Lithographic stones, grindstones, whetstones, burr stones, granite for millstones. 106
h Brine, mineral water, phosphate of lime, shell marl. 107

10 Oppenheimer Bros., Victoria, Br. Col.—Gold nugget. 100

11 Robertson, Robt., Halifax, N. S.—Representation of the gold fields of Nova Scotia. 100

11*a* Morton, George, Frontenac Lead Mine.—Pig lead. 100

12 Donaldson, T. B., Oldham, N. S.—Gold in quartz. 100

13 Sibley, A. H., Silver Islet, Ont.—Silver ores and native silver. 100

13*a* Moody & Nelson, Victoria, B. R.—Native copper. 100

14 McKellar Bros., Fort William, Ont.—Silver ores, native silver, copper pyrites, and barytes. 100

15 Marks, T., & McKellar Bros., Fort William, Ont.—Silver ores. 100

16 Dawson, S. J., Ottawa, Ont.—Silver ores. 100

16*a* Simpson, John, Upham, N. B.—Manganese. 100

17 Cyrette, Ambrose, Fort William, Ont.—Silver ores. 100

18 Van Norman, Judge, Prince Arthur's Landing, Ont.—Native silver and silver ores. 100

19 Plumber, McIntyre, & Russ, Fort William, Ont.—Silver ores. 100

19*a* Jones, T. R., & Co., St. John, N. B.—Copper ore. 100

20 Eames, Prof., Pie Island, Ont.—Silver veinstone. 100

21 Stephen, George, Montreal, Q.—Silver ores. 100

22 Eureka Mining Co., Victoria, Br. Col.—Silver ores. 100

23 Mechanics' Institute, North Westminster, Br. Col.
a Platinum. 100
b Anthracite. 101

24 West Canada Mining Co., Wellington, Ont.—Copper pyrites, copper ore. 100

25 Hime, H. L., Toronto, Ont.—Copper pyrites. 100

26 Plumber, B., Bruce Mine, Ont.—Copper pyrites. 100

27 Oliver, Geo., Perth, Ont.—Copper pyrites, bog iron ore. 100

28 Ontario Advisory Board, Toronto, Ont.
a Copper pyrites, magnetic hematite, galena. 100
b Serpentine, syenite. 102
c Graphite. 105
d Emery. 106
e Phosphate of lime, shell marl. 107

29 Shaw, P., Harvey Hill, Q.—Copper pyrites. 100

30 Stewart, W. W., Montreal Q.—Native copper. 100

31 Douglas, Dr., Quebec, Q.—Copper ore. 100

32 Davidson, Wm., Alma, N. B.—Copper glance. 100

33 Russell, Grand Manan, N. B.—Copper glance. 100

34 Cole, Rufus, Dorchester, N. B.—Copper glance. 100

35 Sweet, R. J., Halifax, N. S.—Copper glance. 100

36 Lloyd, H. C., Madoc, Ont.—Magnetite, hematite. 100

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Mining and Metallurgy.

37 Ledyard, T. D., Toronto, Ont.—Magnetite. 100

38 Haycock, Will., Templeton, Q.—Magnetite. 100

39 Cobourg & Petersboro' Iron Co., Belmont, Ont.—Magnetite. 100

40 Bishop, A., Bell's Corners, Ont.—Magnetite. 100

41 Foley, James, Bathurst, Ont.—Magnetite with apatite. 100

42 Baldwin, A. H., Hull, Q.—Magnetite. 100

43 Chipman, David, Berwick, N. S.—Magnetite. 100

44 Lewis, Queen Charlotte's Island, Br. Col.—Magnetite. 100

45 Cowan, A., Brockville, Ont.
a Hematite, burnt iron pyrites. 100
b Phosphate and superphosphate of lime. 107

46 Crawford, J. D., & Co., Montreal, Q.—Hematite, spathic iron ore. 100

47 Ganthier, O., St. Urbain, Q.—Titanic iron ore. 100

48 Matheson & Gilice, Sydney, N. S.—Hematite. 100

52 Ottawa Iron & Steel Co., Ottawa, Ont.—Iron ore. 100

53 Stobie, James, Sault St. Marie, Ont.—Iron ore. 100

54 Duval, H. H., Quebec, Q.—Titanic iron ore. 100

55 McDougall, John, Three Rivers, Q.—Bog iron ore. 100

56 Steel Co. of Canada, Londonderry, N. S.—Iron ores. 100

57 MacKinnon, J. C., Whycocomagh, N. S.—Iron ores. 100

58 Duhamel, Dr., Quebec, Q.—Iron pyrites. 100

59 Russell, Willis, Lotbiniere, Q.—Antimony ore. 100

60 Hibbard, F., Prince William, N. B.—Antimony ore. 100

61 Hime, L. H., Toronto, Ont.—Galena and copper pyrites, with silver and gold. 100

62 Sibley, Col., & McIntyre, J., Silver Islet, Ont.—Galena. 100

63 Johnson, C. J., Wallaceburg, Ont.—Galena, blende. 100

64 Devine, Thos., Toronto, Ont.—Galena. 100

65 Wearne, Capt., Toronto, Ont.—Galena, blende. 100

66 Markham, A., Hammond, N. B.—Pyrolusite. 100

67 Brown, J., N. S.—Pyrolusite. 100

68 Galway Lead Mining Co., Galway, Ont.—Barytes, calcspar. 100

69 Dolphin Manufacturing Co., Five Islands, N. S.—Barytes. 100

70 Starr, John, Halifax, N. S.—Barytes. 100

71 Baker Mine, North Burgess, Ont.—Mica in plates. 100

72 Ackerly, James, Five Islands, N. S.—Dogtooth spar. 100

73 Dopp, Geo., Berlin, Ont.—Amethyst, fluorspar, and pyrites. 100

74 McVicar, Geo., Toronto, Ont.—Amethyst. 100

75 Blackwood, R., Toronto, Ont.—Amethyst, fluorspar, and pyrites. 100

76 Morrison, W. A., Toronto, Ont.—Collection of Canadian precious stones. 100

77 Poole, H. S., Halifax, N. S.—Ores and associated rocks. 100

78 Honeyman, Dr., Halifax, N. S.—Collection of Nova Scotia rocks. 100

80 Bailey, G., Grand Lake, N. B.—Coal. 101

81 Hall, William, Springhill, N. S.—Coal. 101

82 Mitchell, Henry L., Glace Bay Mines, N. S.—Coal. 101

83 McQueen, Wm., Blockhouse Mines, N. S.—Coal. 101

84 Brown, R. H., Sydney Mines, N. S.—Coal. 101

85 McDonald, R. A., International Mines, N. S.—Coal. 101

86 McKeen, David, Caledonia Mines, N. S.—Coal. 101

87 Archibald, T. D., Gowrie Mines, N. S.—Coal. 101

88 Sutherland, James, Big Glace Bay, N. S.—Coal. 101

89 Fraser, J. W., Victoria Mines, N. S.—Coal. 101

90 Routledge, William, Gardiner Mines, N. S.—Coal. 101

91 Campbell, C. J., North Campbellton, N. S.—Coal. 101

92 Hoyt, Jesse, Acadia Mines, N. S.—Coal. 101

93 Hudson, James, Albion Mines, N. S.—Coal. 101

94 Simpson, Robert, Intercolonial Mines, N. S.—Coal. 101

95 Greener, John, Vale Colliery, N. S.—Coal. 101

96 Bennett, Wm., Scotia Mines, N. S.—Coal. 101

97 Sterling, E., Cape Breton, Big Glace Bay, Sydney, and L. Mines, N. S.—Coal. 101

98 Union Mining Co., Union Mines, Comox, Br. Col.—Coal. 101

99 Baynes Sound Mining Co., Baynes Sound Mines, Br. Col.—Coal. 101

100 Vancouver Mining Co., Vancouver Mines, Br. Col.—Coal. 101

101 Wellington Mining Co., Wellington Mines, Br. Col.—Coal. 101

102 Ketchum, E. K., Albert Mines, N. B.—Albertite and bituminous shale. 101

103 Byers, J., Albert Mines, N. B.—Albertite. 101

104 Smith, Wm., Toronto, Ont.—Peat. 101

106 Griffin, R. A., Huntingdon, Q.—Peat. 101

107 Belliveau Albertite & Oil Co., Westmoreland, N. B.—Albertite mineral oil. 101

108 Waterman Bros., London, Ont.—Petroleum and products. 101

109 Gibson, Robert L., Grimsby, Ont.—Building sandstones. 102

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Mineral Water, Metallurgical Products.

110 Farquhar & Booth, Esquesing, Ont. —Building sandstones and flagging. 102

111 Skead, Gloucester, Ont.—Building sandstones. 102

112 Londley, Beckwith, Ont.—Building sandstones. 102

113 Rankin, John, Pembroke, Ont.—Building sandstones. 102

114 Bishop, Henry, Nepean, Ont.—Building sandstones. 102

115 Decew, William, Oneida, Ont.—Building sandstones. 102

116 McGregor, Lachute, Q.—Building sandstones and limestones. 102

117 Goodfellow, Joseph, North Esk, N. B.
a Building sandstones. 102
b Grindstones. 106

118 Dor. U. Free Stone Co., Budreau, Vil., N. B.—Building sandstones. 102

119 Caledonia Free Stone Co., Rockland, N. B.—Building sandstones. 102

120 Roberts & Co., Mary's Point, N. B.—Building sandstones. 102

121 Bayview Quarry Co., Albert City, N. B.—Building sandstones. 102

122 Hopewell Quarry Co., Shepody Mt., N. B.—Building sandstones. 102

123 McQuarrie, John, George River, N. S.—Building sandstones. 102

124 Gilpin, Edwin, Springville, N. S.
a Building sandstones. 102
b Limestone. 103
c Fire brick and fire clay. 104

125 Heustis, R. B., Wallace, N. S.—Building sandstones. 102

126 McDonald, George J., Cornwallis, N. S.—Building sandstones. 102

127 Peters, Henry S., Halifax, N. S.—Building sandstones. 102

128 Vancouver Coal Co., Vancouver Island, Br. Col.—Building sandstones, marble, limestone. 102

129 Howley, James, Montreal, Q.
a Building and flagging sandstones. 102
b Sandstone for glass-making. 104

130 Pitton & Co., Quebec, Q.—Sandstone, flagging, curbstones. 102

131 Worthington & Co., Montreal, Q.
a Polished marble. 102
b Limestone. 103

132 Somerville, P. T., Arnprior, Ont.—Marble monument. 102

133 Halon, Alphonse, Quebec, Q.—Marble. 102

134 Benjamin, H., & Co., Montreal, Q.
a Marble. 102
b Lime. 103

135 Brunet, Joseph, Montreal, Q.—Marble monument. 102

136 Langevin, A. B., Quebec, Q.—Marble. 102

137 Silver, John, Halifax, N. S.—Marble. 102

138 McQuarrie, John, George River, N. S.—Marble and syenite. 102

139 Ingram, Wm., St. George, N. B.—Red granite clock case. 102

140 Baxter, B , Cayuga, Ont.
a Dolomite. 102
b Lime and limestone, hydraulic cement. 103

141 Barclay & Morrison, Stony Mount Manitoba.
a Dolomite. 102
b Clay. 104

142 Hayslip, John, Goderich, Ont.—Limestone. 102

143 Young, Y. & G., Gloucester, Ont.—Limestone. 102

144 Levallée, N., Carleton Place, Ont.—Limestone. 102

145 Kirkpatrick Quarry, Parrsboro', Q.—Limestone. 102

146 Forsyth, Robert, Montreal, Q.—Red granite monument. 102

147 Bay of Fundy Red Granite Co., St. George, N. B.—Red polished granite. 102

148 Danville School Slate Co., Danville, Q.—Ornamental slate panel, slates in blocks. 102

149 Danville Slate Co., Danville, Q.—School slates. 102

150 Rockland Slate Quarry, Melbourne, Q.—Slates. 102

151 DeCew, William, Cayuga, Ont.
a Lime and limestone. 103
b Sandstone for glass-making and furnace lining. 104

152 Whitson & Slater, St. Marys, Ont.—Lime and limestone. 103

153 Dunbar, George, Rockwood, Ont.—Lime and limestone. 103

154 Lewis, Levi, Kincardine, Ont.—Lime and limestone. 103

155 Buxton, George, Goderich, Ont.—Lime and limestone. 103

156 Emsley, R., Guelph, Ont.—Lime and limestone. 103

157 Ballantyne, Mrs., Galt, Ont.—Lime and limestone. 103

158 Farquhar, E. & C., Dundas, Ont.—Lime and limestone. 103

159 Goudle, Thomas, Limehouse, Ont.—Lime and limestone. 103

160 Lavallée, N., Carleton Place, Ont.—Lime and limestone. 103

161 Baker, W., Arnprior, Ont.—Lime and limestone. 103

162 Quebec Advisory Board, Quebec, Q.
a Lime and limestone. 103
b Porcelain clay. 104
c Phosphate of lime, chalk. 107

163 Garvies, C. A., Montreal, Q.—Lime and limestone. 103

164 Robitaille, Dr., Quebec, Q.
a Limestone. 103
b Marl. 107

165 Quesnal, Sheriff, Arthabaska, Q.—Lime and hydraulic cement. 103

166 Douglas, David, Pugwash, N. S.—Lime. 103

167 Goudie, Thomas, Limehouse, Ont.—Hydraulic cement. 103

168 McKay, Wm., Ottawa, Ont.—Hydraulic cement and artificial stone. 103

169 Buchanan Mineral Co., Hamilton, Ont.—Cement and mastics. 103

170 Gauvreau, P., & Co., Quebec, Q.—Cements and plasters, artificial stone. 103

171 Hill, Albert J., Sydney, N. S.—Selenite. 103

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Minerals, Stone.

172 Gregory, V. R., & Co., Toronto, Ont.—Artificial stone monument. 103

173 Wandly, Henry, Clover Hill, Toronto, Ont.—Artificial stone. 103

174 Milner & Herd, Strathroy, Ont.—Artificial stone window cap. 103

175 Joslyn, J. H. L., Box 153, Tilsonburg, Ont.—Marbleade roofing, a seamless sheet of artificial stone, not excessively heavy, but wonderfully efficient; not resting on the roof boards, but accommodated to them by an intervening plastic waterproof composition. 103

176 Riggins, George, Kincardine, Ont.—Clay for bricks. 104

177 Russell, Samuel, London, Ont.—Clay for bricks. 104

178 Munn & Cochner, Dundas, Ont.—Clay for bricks. 104

179 Leslie, Robert, Glenwilliam, Ont.—Clay for bricks. 104

180 Townshend, Mrs. Mary, Rockville, Ont.—Clay for bricks. 104

181 Anderson, Thos., Nepean Ont.—Clay for bricks. 104

182 Cashmore, Thos., Pembroke, Ont.—Clay for bricks. 104

183 McGregor, Daniel, Pembroke, Ont.—Clay for bricks. 104

184 Baker, William, Arnprior, Ont.—Clay for bricks. 104

185 Foshick, Eneas, Ramsay, Ont.—Clay for bricks. 104

186 Moore, Gilbert, Ramsay, Ont.—Clay. 104

187 Coulter, James, Ramsay, Ont.—Clay. 104

188 Metcalfe, James, Ramsay, Ont.—Clay. 104

189 Foster, W. A., Belleville, Ont.—Clay. 104

190 Workman, Hugh, Brantford, Ont.—Clay. 104

191 Peel, Thos. W., Montreal, Q.—Clay. 104

192 Mochan, Albert, St. Johns, Q.—Clay. 104

193 Jackson, Charles, Woodstock, N. B.—Clay. 104

194 Wells, William, Beamsville, Ont.—Pottery clay. 104

195 Ahren, J. H., Paris, Ont.—Pottery clay. 104

196 Pratt, Charles, London, Ont.—Pottery clay. 104

197 Farrar, G. H. & L. E., St. Johns, Q.—Pottery clay. 104

198 Bell, David, St. Johns, Q.—Clay drain tile. 104

199 Copeland & McLaren, Montreal, Q.—Fire clay, sandstone facing for furnaces. 104

200 McMann, G. N., Grand Lake, N. B.—Fire clay. 104

201 Bannerman, Robert, Montreal, Q.—Pipe clay. 104

202 St. Johns Stone Chinaware Co., St. Johns, Q.—Fire brick. 104

203 Bishop, H., Nepean, Ont.—Sandstone for glass-making. 104

204 McDougall, John, & Sons, Three Rivers, Q.—Sandstone for furnace lining. 104

205 Oil Cloth Factory, Yorkville, Ont.—Sand. 104

206 Jackson, Charles, Woodstock, N. B.—Brick sand. 104

207 Sweet, S. H., Wentworth, N. S.
a Kaolin. 104
b Gypsum. 107

208 McDonald, George J., Cornwallis, N. S.—Refractory stone. 104

209 Law, John, London, Ont.—Black lead crucible. 105

210 Dominion of Canada Plumbago Co., office, Ottawa, Ont.; mines and works, Buckingham, Province of Quebec.—Manufacturers of electrotyping, lubricating, pencil, crucible, stove polish, and other stock of every grade. Assays and tests prove quality. Prices are ordinary current market rates. 105

211 Millet, John G., Grenville, Q.—Graphite. 105

212 Montreal Plumbago Mining Co., Montreal, Q.—Stove polish. 105

213 Martin, Charles, Montreal, Q.—Stove polish. 105

214 Kelly, John, Belleville, Ont.—Lithographic stones. 106

215 Ontario Lithographic Stone Co., Marmora, Ont.—Lithographic stone. 106

216 Read, Stevenson, & Co., Dorchester, N. B.—Grindstone polishing and cutters' stone. 106

217 Seaman & Co., Lower Cove, N. S.—Grindstones. 106

218 Douglass, David, Port Philip, N. S.—Grindstones. 106

219 Leroux, G., Quebec, Q.—Millstones. 106

220 Casgrain, Stoneham, Q.—Tripoli. 106

221 Fisher, W., Victoria, Br. Col.—Tripoli. 106

222 Coleman, William, Paris, Ont.—Raw and prepared gypsum. 107

223 Ontario Plaster Co., Mt. Healy, Ont.—Raw and prepared gypsum. 107

224 Converse, John A., Montreal, Q.—Raw and prepared gypsum. 107

225 Brown, A., Petitcodiac, N. B.—Gypsum and selenite. 107

226 Tobique Gypsum Co., Tobique, N. B.—Gypsum. 107

227 Albert Manufacturing Co., Hillsboro, N. B.—Calcined and anhydrous gypsum; alabaster. 107

228 McDonald, R. N., International Museum, N. S.—Gypsum. 107

229 Nova Scotia Advisory Board, Halifax, N. S.—Gypsum. 107

230 Davidson, H. A., Black River, N. S.—Gypsum. 107

231 Cove, Jas. A., Claremont Hill, N. S.—Gypsum. 107

232 Fulton, C. A., Wallace, N. S.—Gypsum. 107

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Minerals, Metallurgical Products.

232*a* Meighen Bros., Perth, Ont.—Phosphate of lime. 107

233 McLennan, Jos., Montague, N. S.—Gypsum. 107

234 Merchants' Salt Co., Seaforth, Ont.—Brine. 107

235 International Works, Goderich, Ont.—Brine. 107

236 Ransford, H., Clinton, Ont.—Brine. 107

237 Tecumseh Works, Goderich, Ont.—Brine. 107

238 Gray, Young, & Spalding, Seaforth, Ont.—Brine. 107

239 Jourvie, J. A., & Co., Caledonia Springs, Ont.—Saline, gas, and sulphur waters. 107

240 Winning, Hill, & Ware, Montreal, Q.—Carratraca water. 107

241 Gee, J. N., St. Francis Spring, Q.—Mineral water. 107

242 Hickman, James S., Amherst, N. S.—Saline water. 107

243 Murray, Edmund W., Buckingham, Q.—Phosphate of lime. 107

244 Buckingham Mining Co., Buckingham, Q.—Crystal phosphate of lime. 107

Metallurgical Products.

245 Silver Islet Co., Silver Islet, Ont.—Ingot of silver. 110

246 Ottawa Iron & Steel Manufacturing Co., Ottawa, Ont.—Iron billets. 111

247 Field & Aydon Patent Smelting Co., Marmora, Ont.—Pig iron, smelted with pure petroleum. 111

248 Gauthier, O., St. Urbain, Q.—Titanic pig iron. 111

249 McDougall, John, & Sons, Three Rivers, Q.—Charcoal iron; iron bars, bent and twisted cold; axes, tomahawk, slag. 111

250 Canadian Titanic Co., Baie St. Paul, Q.—Slags, titanic iron. 111

251 Chinic Eugene, Quebec, Q.—Viger steel. 111

252 Moisic Iron Works, Montreal, Q.—Iron, iron bloom. 111

253 McDougall, John, Montreal, Q.—Iron bloom, car-wheels. 111

254 Steel Co. of Canada, Londonderry, N. S.—Iron and steel. 111

255 West Canada Mining Co., Bruce Mines, Ont.—Ingot copper. 112

256 Lake George Antimony Co., Prince William, N. B.—Babbit metals, regulus, slags, oxidized ore. 113

FRANCE.

(*The French Exhibits in Mining and Metallurgy are installed in the Agricultural Building, and Catalogued in Part IV.*)

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

GERMANY.

(South of Nave, Columns 28 to 38.)

Minerals, Ores, Mining and Metallurgical Products.

Minerals, Ores, Stone, Mining Products.

1 Krupp, Fr., Essen.—Ores and raw products. 100

2 Burbach Works, Burbach.
a Iron. 100
b Coal. 101
c Stone. 102

3 Heinrichshütte, Au-on-the-Sieg.—Spathic iron ore. 100

4 Mine Owners of the Siegerland.—Ores, etc. 100

(The above exhibits are installed in Machinery Hall.)

COLLECTIVE EXHIBIT OF PRODUCTIONS OF LEAD MINES AND FURNACES, ACCOMPANIED BY DRAWINGS.

5 Royal Prussian Smelting Works of the Upper Harz, Clausthal.—Lead, copper, and zinc ores. 100

6 Royal Prussian & Ducal Brunswick Smelting Works of the Lower Harz, Gaslar.—Argentiferous copper and lead ores. 100

6*a* Royal Prussian Smelting Works, Friedrichshütte.—Ores and litharge. 100

7 Joint Stock Association for Mining, & Lead & Zinc Manufactures, Stolberg, near Aix-la-Chapelle.—Lead and zinc ores. 100

8 Rhenish-Nassau Co., Stolberg, near Aix-la-Chapelle.—Lead ores. 100

9 Solenhofen Joint Stock Co., Solenhofen.
a Tiles for malt-house floors. 102
b Lithographic stones. 106

10 Zimmermann, Otto, Greussen, Tophus.—Tiles. 102

11 Stern Portland Cement Factory, Stettin.—Portland cement. 103

12 Hiller, Otto, Berlin.—Mastic roofing and model roof. 103

13 Häeusler, Carl Sam., Hirchberg, Silesia.—Wood cement and model roof. 103

14 Scharlach, Louis, jr., Hamburg.—Roofing. 103

15 Vowohl Asphalt Works, Escherschausen.—Asphalt mastic blocks. 103

16 Schindel, John Adam, Solenhofen.—Lithographic stones. 106

17 Apollinaré's Co., Ahnweiler.—Mineral waters. 107

17*a* Bisresborn Mineral Spring Co., Bisresborn.—Mineral waters. 107

18 Jungfer, A., Berlin.—Amber. 107

19 Stantien & Becker, Berlin.—Raw amber. 107

20 Managers of Friedrichshall Springs, C. Oppel & Co., Friedrichshall, near Hilburghausen.—Friedrichshall natural bitter water. 107

(For mill and grindstones, see Machinery Hall.)

Metallurgical Products.

21 Borsig, A., Berlin.—Iron, cast steel, boiler plates, plates for fire boxes, etc. 111

22 Burbach Works, Burbach.—Rolled double T iron. 111

23 Krupp, Fr., Essen.—Wheels, pistons, flanges, rollers, springs, etc. 111

COLLECTIVE EXHIBIT, SIEGERLAND.—SPIEGELEISEN AND ORES.

24 Heinrichshütte, Au-on-Sieg.—Spiegel iron. 111

25 Cologne Müsen Mining Co., Creuzthal.—Spiegel iron. 111

26 Joint Stock Co., Charlottenhütte, Niederschelden.—Spiegel iron. 111

27 Wissen Mining & Smelting Co., Wissen.—Spiegel iron. 111

28 Lohmann & Söding, Witten.—Steel for tools and arms. 111

29 Westphalian Union Joint Stock Co. for Mining & for Iron & Wirework, Hamm.—Wire. 111

(The above exhibits of Metallurgical Products are installed in Machinery Hall.)

30 Royal Prussian Smelting Works of the Upper Harz, Clausthal.—Lead, copper, silver, zinc fumes, slags, drawings, etc. 111

31 Royal Prussian & Ducal Brunswick Smelting Works of the Lower Harz, Gaslar.—Gold, silver, lead, and copper composition. 111

32 Royal Prussian Smelting Works, Friedrichschütte.—Lead bars, slag, and drawings. 111

33 Hirsch, Aron, & Son, Brass Works at Neustadt-Eberswalde.—Seamless brass tubes, etc. 112

34 Joint Stock Association for Mining, & Lead & Zinc Manufactures, Stolberg, near Aix-la-Chapelle.—Lead and zinc plates, etc. 111

35 Ruffer & Co., Breslau.—Sheet zinc. 113

35*a* Rhenish-Nassau Co., Stolberg, near Aix-la-Chapelle.—Lead. 111

Mining Engineering.

36 Nörr, Eugene, Berlin.—Drawings and description of a self-acting safety lamp. 120

37 Gödecke, Carl, Gelsenkirchen.—Plans of the Gelsenkirchen furnaces. 121

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

AUSTRIA.

(*South of Nave, Columns 23 to 28.*)

Minerals, Ores, Stone, Metallurgical Products.

Minerals, Ores, Stone, Mining Products.

1 Imperial & Royal Metallurgy Direction, Idria.—Cinnabar. 100

2 Jugoviz, A., Klagenfurt.—Ore and mining products of Karnthen. 100

3 Chief Mountain & Mining Administration, Pozoritta, Bukowina.—Pyrolusite for aniline pigments for soda factories, German silver ware, and manganese products. 100

4 Metallurgy & Mining Administration, Joachimsthal. — Meteoric specimens. 100

5 Goldschmidt, Louis A., Dubnik, Hungary.—Unpolished opals. 100

6 Nedwied & Son, Schlan, Bohemia.—Red chalk, red-lead pencils. 107

7 Saxlehner, Andreas, Budapest.—Hunyadi János mineral water. 107

8 Mineral Water Direction, Pullna, near Brüx, Bohemia.—Mineral water. 107

9 Loser Bros., Budapest.—Genuine mineral water from the Ofen-Rakoczy spring. 107

Metallurgical Products.

10 Industry Association in Krain, Laibach.—Iron and steel mountain and mining works. Ferro-manganese and spiegel iron. 111

11 Imperial & Royal Metallurgy Direction, Idria.—Quicksilver. 113

SWITZERLAND.

(*North of Nave, Columns 52 to 55.*)

Minerals, Metallurgical Products.

Minerals, Ores, Stone, Mining Products.

1 Neuchatel Asphalte Co. (limited), Travers, Ct. Neuchâtel.—Natural and mastic asphalt. 101

(*The minerals illustrating the geological formations traversed by the St. Gothard tunnel are classified in this catalogue, together with the other exhibits of the St. Gothard Railroad Co., under Dept. III., Class 332.*)

Metallurgical Products.

3 Bürgin Bros., Schaffhausen.—Phosphate of bronze, different compositions, with strength and fracture tests. 114

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

BELGIUM.

(*North of Nave, Columns 54 to 59.*)

Minerals, Metallurgical Products.

Minerals, Ores, Stone, Mining Products.

1 Bleyberg es Montzen Joint Stock Co., Montzen, Province of Liége.—Zinc and lead ores. 100

2 Vincent Son, Basècles (Hainaut).—Samples of Basècles black marble pavements. 102

2*a* Sacquelen, F., Basècles near Tournai (Hainaut).—Specimens of Basècles blue and gray stone. 102

3 Ville de Spa (Communal Administration).—Trophy furniture, showing views of the city and environs, plans of mineral water-works, samples of these waters, articles of export, etc. The painting of this furniture was executed by Messrs. Boland, Chas., Bronfort, H., Crahey, senior, G. I., Debrus, Alexandre, Debrus, Alexis, Krins, E., Marcette, Henri, and Reigler, L. 107

Metallurgical Products.

4 Bonehill Bros., L'Esperance High Furnace Forge Foundry, Marchienne-au-Pont, near Charleroi.—Architectural iron. 111

5 Constant, Emile, Monceau-sur-Sambre, near Charleroi.—Patterns of building iron spring and web iron. 111

6 Mabille, Valère, Mariemont (Hainaut).—Manufactured iron, Kind Chaudron shaft-sinking apparatus. 111

7 Paris, Isaac Joseph, Marchiennes, near Charleroi.—Iron riveted beams for ship-building. 111

8 Charleroi Iron Manufacturing Joint Stock Co., Marchienne-au-Pont, near Charleroi.—Iron for building, etc. 111

9 Providence Forge Joint Stock Co., Marchienne-au-Pont, near Charleroi.—Iron for building, iron wheels without welding. 111

10 Forge and Rolling Mill Joint Stock Co., Régissa, near Huy.—Polished and unpolished sheet iron by wood and coke. 111

11 Angleur Steel Manufacturing Co., F. de Rossius, Pastor & Co., Renory, near Liége.—Bessemer cast steel products, rails, tires, axles, forge pieces, and rolled bars. 111

12 Jemmapes Forge Foundry & Rolling Mill Co., V. Demerbe & Co., Jemmapes (Hainaut).—Broken bar-bended iron, tramway rails, system of tramway rails on cast iron sleepers. 111

13 Bivort, Raymond, Henri, Arbre, Province of Namur.—Kettles and copper wire. 112

14 Bleyberg es Montzen Joint Stock Co., Montzen, near Verviers.—Prepared zinc and lead ore, potters' ore (pure galena) for glazing, pig lead for rolling mill, white lead and crystals, silver ore, block zinc for rolling, galvanizing, etc. 113

NETHERLANDS.

(*North of Nave, Columns 60 to 65.*)

Stone.

Minerals, Ores, Stone, Mining Products.

1 Onderwater, H. F., Dordrecht.—Stones for pavement. 102

2 Van Verschuur & Van der Voort, Amsterdam.—Unpolished stones. 102

3 Borst & Roggenkamp, Delfzyl.—Portland cement stones, lithographic stones, oilstones, whetstones, grindstones, polishing material, and sand quartz; garnets, raw topazes, diamonds, tripoli, and corundum. 106

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

SWEDEN.

(*North of Nave, Columns 6 to 11.*)

Ores, Stone, Metallurgical Products.

Minerals, Ores, Stone, Mining Products.

1 Adelsvärd, Baron Th., Atvidaberg.—Copper ore. 100

2 Bofors Stock Co., Gullspang, Bofors.—Iron ores. 100

3 Berg, Axel, Warby, Stockholm.—Iron ores. 100

4 Berg, Gottfried, Warby, Stockholm.—Zinc, galena, and nickel ores, pyrites. 100

5 Fagersta Iron & Steel Works, Westanfors.
a Iron ores. 100
b Limestone. 103

5*a* Swedish Iron Masters' Association, Stockholm.
a Collection of minerals. 100
b Maps and drawings. 335

6 Avesta Garpenbergs Stock Co., Avesta.—Iron ores. 100

7 Björneborgs Iron & Steel Works, Björneberg.—Iron ores. 100

8 Degerfors Stock Co., Degerfors.—Iron ores. 100

9 Ekman, Carl, Finspong.—Iron ores. 100

10 Hermansson, C. F., Count von, Ferna.—Iron ores. 100

11 Hofors & Hammarby Iron Works, Gefle.—Iron ores. 100

12 Larsbo Norn Stock Co., Kafalla.—Iron ores. 100

13 Laxa Iron Works Co., Laxa.—Iron ores. 100

14 Lesjöfors Iron & Steel Co., Langbanshyttan.
a Iron ores. 100
b Hausmannite and limestone. 103

15 Lindberg, Lars, Kohlsva.—Iron ores. 100

16 Löfvenskiöld, Salomon, Nissafors, Jönköping.—Iron ores. 100

17 Ramnäs Iron Works Co., Ramnäs.—Iron ores. 100

18 Rettig, C. A., Kilafors, Gefle.—Iron ores. 100

19 Schisshytte-Molnebo Iron Works, Morgongåfva.—Iron ores, krebelite, linc ores, and galena. 100

20 Stockenström, Axel von, Aker, Mariefred.—Iron ores. 100

21 Stora Kopparbergs Bergslag, Stockholm.—Iron ores. 100

22 Sundström, J. O., Charlottenberg.—Iron ores. 100

23 New Gellivara Company (limited), Lulea.—Iron ores. 100

24 Osterby & Strömbacka Iron Works, Osterby.—Iron ores. 100

25 Uddeholm Company, Rada.—Iron ores. 100

26 Larsson, P. M., Löa, Rausa.—Iron ores. 100

27 Sanövikens Stock Co., Gefle.—Iron ores. 100

28 Schough, Robert, Lulea.—Iron and copper ores. 100

29 Geological Survey of Sweden, Stockholm.—Geological collections. 100

30 Höganäs Coal Mining Co., Höganäs.
a Mineral coal. 101
b Fire clay, fire brick. 104

31 Samuelson, S. H., Föskefors, Rada.—Peat. 101

32 Westerlund, A. F., Nybro, Kalmar.—Peat. 101

33 Berg, Gottfried, Wärby, Stockholm.—Porphyry, serpentine, and marble. 102

34 Klintberg, J. W., Wisby.—Marble table slabs, jewelry, etc. 102

35 Kullgrens', C. A., Widow, Uddevalla.—Articles of polished granite. 102

36 New Marble Works, Norrköping.—Manufactured marble. 102

37 Scanian Cement Co., Malmö.—Portland cement, raw materials and products. 103

38 Rörstrand Stock Co., Stockholm.—Feldspar. 104

39 Gottland Grindstone Co., Burgsvik.—Grindstones. 104

39*a* Karlson, Gust & Martin, Lugnas.—Grindstone. 106

40 Berg, Gottfried, Warby, Stockholm.
a Graphite. 105
b Grindstones. 106
c Vivianite. 107

41 Berg, Chr. Lud., Eriksberg, Stockholm.—Mineral waters. 107

42 Mineral Water Stock Co., Stockholm.—Mineral waters. 107

Metallurgical Products.

43 Bofors Stock Co., Gullpsang, Bofors.—Pig iron, blooms, bar iron, wire rods, and iron plate. 111

43*a* Ramnäs Stock Co., Ramnäs.—Pig and bar iron; slag. 111

44 Fagersta Stock Co., Westanfors.—Pig iron, Bessemer steel ingots, bars, plates, etc.; steel samples, showing the strength of the steel. 111

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Metallurgical Products.

45 Schissbyttan-Molnebo Manufacturing Co., Morgongåfva.—Spiegeleisen. III

46 Göteborgs Mechanical Works Stock Co., Göteborg.—Crown of a fine. III

47 Laxa Iron Works, Laxa.—Pig iron, blooms, and bar iron. III

COLLECTIVE EXHIBIT OF IRON MANUFACTURERS, STOCKHOLM.

48 Ankarsrum Works, Ankarsrum.—Pig iron, blooms, iron bars, wire rods, and railway crossings. III

49 Avesta Garpenberg Stock Co., Avesta.—Pig iron, blooms, and bar iron. III

50 Björneborgs Iron & Steel Works, Björneborg.—Pig iron, Bessemer steel ingots, and manufactured Bessemer steel. III

51 Degerfors Stock Co., Degerfors, Wermland.—Pig iron, blooms, wire rods, and plate. III

52 Ekman, Carl. Finspong.—Pig iron for guns, malleable blooms, and bar iron. III

53 Gysinge Iron Works, Gysinge.—Iron in the pig and bars, with specimens of slag. III

54 Hermansson, C. F., Count von, Ferna, Bernshammar.—Pig iron, spiegeleisen, and bar iron. III

55 Hofors & Hammarby, Hammarby, Storvik, Gefle.—Pig iron, blooms, and bars, with specimens of slag. III

56 Larsbo, Norna, Stock Co., Kafalla.—Pig, bar, and angle iron; blooms. III

57 Lesjöfors Iron & Steel Co., Filipstad.—Pig iron, ingots of Bessemer and Martin steel, bars, wires, and wire rope of the same material. III

58 Lindberg Lars, Kohlsva.—Pig iron, bar iron, and wire rods. III

59 Löfvenskiöld, Salomon, Nissafors, Jönköping.—Iron in the pig and bars. III

60 Rettig, C. A., Killafors, Söderhamn.—Pig and bar iron. III

61 Stockenström, Axel von, Mariefred.—Pig iron for malleable iron. III

62 Bergslag Iron Works, Stockholm.—Pig iron, Bessemer ingots, blooms, bar iron, and samples of iron showing the quality. III

63 Sundström, J. O., Charlottenberg.—Pig and bar iron, spikes. III

64 New Gellivara Company (limited), Lulea.—Pig and bar iron; nails. III

65 Osterby & Strömbacka, Dannemora.—Pig iron, Bessemer steel ingots and bars, blister steel, crucible cast steel, and bar iron. III

66 Surahammars Iron Co., Surahammar.—Iron plate, puddled iron, and steel bars, railway wagon wheels and axles. III

67 Uddeholms Stock Co. (limited), Rada.—Pig iron, ingots of Bessemer and Martin steel, and iron in bars, springs, etc. III

68 Larsson, P. M., Löa, Rällsa.—Samples of pig iron. III

69 Motala Mechanical Co., Motala.—Iron and steel, in bars, plates, and sheets, with products of working. III

70 Sandvikens Iron Works (limited), Sandviken.—Pig iron, Bessemer steel ingots, forgings for engines, steamers, etc. III

71 Adelswärd Baron, Th., Atvidaberg.—Copper in ingots, with specimens illustrating its various stages of production. III

72 Skultuna Stock Co., Westeras.
a Copper, with products of working. III
b Brass in different stages of production. III

(For rails, railway and wagon wheels, tires, axles, etc., see Class 373, Machinery Hall.

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 25–45.

NORWAY.

(*North of Nave, Columns 4 to 7.*)

Ores, Stone, Metallurgical Products.

Minerals, Ores, Stone, Mining Products.

1 Geological Survey of Southern Norway, Director Th. Kierulf, Christiania.
a Stones, eruptive rocks, leading strata, constituents of coarse granite dykes. 100
b Manuscript maps, natural sections, generalized representations, printed maps. 335

2 Fasmer, I. H., & Son, Bergen.—Feldspar. 100

3 Hinderager Mining Co., Bergen.—Copper ore, pyrites. 100

4 Hoyem, Andr., Bergen.—Titanium iron ore. 100

5 Kongsberg Silver Mines, Kongsberg.—Ores, crystals. 100

5*a* Dahll, J., Kragerö.—Apatite ore. 100

6 Bamble Nickel Mines, Johan Dahll, Kragerá.—Samples of nickel ores, with specimens illustrative of the melting process. 100

7 Glorud Nickel Co., F. H. Frolich & Son, Christiania.—Nickel ores. 100

7*a* Geological Survey of Southern Norway, Assistant Geologists W. Brögger and H. Reusch, Christiania.
a Newly-discovered crystals. 100
b Contents of giant-kettles, spiral marked interior grinding-stones. 106

7*b* Ringerige's Nickel Works.—Nickel ores, with rocks and specimens of the smelting process. 100

7*c* Rom Nickel Works.—Nickel ores, with rocks and specimens of the smelting process. 100

8 Luttensee, Georg, Christiania.—Quarry stone for street pavement and curbstones. 102

9 Moestue & Co., Thv., Christiania.—Slates for tables, roofs, and floors, from Slidre quarries. 102

10 Pettersen, Karl, Tromsö.—Granite, labbro and other massives, raw and polished. 102

11 Frolich & Son, F. H., Christiania.—Collection of Norwegian apatite ores. 103

12 Birch, F., Selboe.—Millstones. 106

14 Christiania Millstones Manufacturing Co., Christiania.—Millstones. 106

15 Lönseth, Fred., Christiania.—Millstones from Sælbo, flint millstones. 106

Metallurgical Products.

16 Kongsberg Silver Mines, Kongsberg.—Silver in bars and granulated silver. 110

17 Cathrineholms Iron Works & Foundry, Fredrikshald.
a Stoves and other wrought iron. 222
b Anchors, chains. 284

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

ITALY.

(*North of Nave, Columns 1 to 5.*)

Minerals, Stone, Metallurgical Products.

Minerals, Ores, Stone, Mining Products.

1 Tagliavia, Francesco, & Co., Messina.—Collection of minerals. 100
2 Fontana Brothers, Luserna, Turin.—Flagstones. 102
3 Tassi, Peter, Leghorn.—Yellow marble and alabaster. 102
4 Chamber of Commerce & Arts, Sienna.—Marble and alabaster stone. 102
5 Stock Company for Manufacturing Bricks, Peggio, Emilia.—Cement, limestone. 103
6 Crispo, Moncada Carlo, Catania.—Limestone. 103
7 Maccagnani, Ulisse, Bologna.—Aromatic earth of Cattu. 104
8 Bolari & Yellow Earth Co., Sienna.—Bolari and yellow earth, earth for coloring. 104
9 Furse Bros., & Co., Rome.—Bolari earth of Sienna. 104
10 Molfino, Luigi, Genoa.—Lithographic stone. 106
11 Scammano, Cav. Michele, Catania.—Cedrats. 107
12 Birindelli, Carlo, Florence.—Colalli water. 107
13 Spedalieri, Ba Felice, Catania.—Sulphur. 107
14 Aristide, Count, Castrocaro.—Mineral waters. 107
15 Romano, Gaetano, Palermo.—Sulphur. 107
16 Scavo Vita Brothers, Catania.—Sulphur. 107
17 Dily, Edoardo, Catania.—Sulphur. 107
18 Ardizzone, Francesco, Catania.—Sulphur. 107
19 Pennini, Baron of Floristallo, Catania.—Sulphur. 107
20 Cesena Sulphur Co. (limited), Cesena.—Raw and refined sulphur. 107
21 Bartolini dott Cesare, Sienna.—Fossil flour. 107

Metallurgical Products.

22 Fornara, Gio., & Co., Turin.—Wire. 111
23 Ponsard & Gigli, Florence.—Iron, manganese. 111

BRAZIL.

(*North of Nave, Columns 58 to 61.*)

Minerals, Stone.

Minerals, Ores, Stone, Mining Products.

1 Province of Paraná.
a Iron ores. 100
b Clay, argil, and schist. 104
c Alkaline waters. 107
2 Province of San Paulo.—Iron ores. 100
3 Ypanema Iron Works.—Iron ores. 100
4 Cunha Bettencourt, M. J. da.—Minerals. 100
5 Gorceix, H.—Rocks and minerals. 100
6 Commission General for the National Exhibition.
a Ores. 100
b Coal. 101
c Marbles. 102
d Clay, argil, and schist. 105
e Minerals, showing gold and diamond formations. 106
7 National Museum.
a Minerals. 100
b Coal. 101
c Marbles. 102
d Gems. 106

For classes of exhibits, indicated by number at end of entries, see Classification, pp 27-45.

Oils, Blacking, Boots and Shoes.

8 Goes, J. T. Pereira de.—Minerals. 100
9 Lemos, J. A. de.—Minerals. 100
10 Correia, J. Severo.—Calcareous rocks, galena, and pyrites. 100
11 Athayde, M. E. de S.—Mica. 100
12 Moraes, Rozeira, M. G. de.—Martial pyrites. 100
13 Mendes, J. O.
a Sulphur. 100
b Calcareous stalactites. 102
14 Costa Netto, J. da.—Fossils. 100
15 Province of San Pedro do Sul.—Coal. 101
16 Villa Franca, Baron of.—Peat. 101
17 Andrade, A. R. L.—Bituminous coal. 101
18 Barbacena, Viscount of.—Coal. 101
19 Province of Sancta Catherina.
a Coal. 101
b Marble. 102
20 Lopez, F. J. A., & Co.—Bituminous schist. 101
21 Carvalho, A. P. S.—Bituminous schist. 101
22 Muricy, J. C. da Silva.
a Anthracite and bituminous coal. 101
b Quartz, agates, and grindstones. 106
23 Steraux, E.—Marbles. 102
24 Leao, A. D.
a Calcareous slates and stalactites. 102
b Rock crystal and agates. 106
25 Coritiba Museum.
a Slates. 102
b Violaceous quartz. 106
26 Osternack, Charles.—Virgin lime. 103
27 Juparana, Baron of, & Nogueira da Gama.—Calcareous specimens. 103
28 Freitas, T. Teixeira de.—Lime. 103
29 Cardoso, A. Nunes.—Lime from oyster-shells. 103
30 Portugal, F. P. de Asvedo.—Calcareous rocks. 103
31 Commission of S. Joao d' El Rei.—Plaster of Paris in powder. 103
32 Nhorinho, J. S. da Silva.—Lime. 103
33 Bento, Dr.—Lime. 103
34 Lendenberg, L. B.—Lime. 103
35 Rezende, C. Xavier.—Stalactites. 103
36 Colony of Assungin.—Saponaceous clay. 104
37 Gonzaga, E. J.—Clays. 104
38 Gonsalves, J.—Calcined kaolin. 104
39 Correa, G. Lourenço.—Clay. 104
40 Wirmond, E. E.—Yellow argil. 104
41 Mota, C. S. da.—Tagua (rose-colored argil). 104
42 Gomes, T. G. C.—Argil. 104
43 Figueredo, D. J.—Argil and plastics. 104
44 Magalhaes, F. T. S.—Argil and colored clay. 104
45 Andrade, J. F. de.—Colored clay. 104
46 District of Formiga.—Argil. 104
47 Travanca, A.—Argil. 104
48 Schimmelpfing, A.—Kaolin. 104
49 Ribas, M. de Sa.—Alum. 106
50 Ferreira, Domingos F.—Rough and cut diamonds. 106
51 Silva, L. Machado da.—Quartz prisms. 106
52 Heyd, Theodoro.—Grindstones. 106
53 Siqueira, P. Lustósa de.—Agates. 106
54 Colony of Mucury.—Precious stones. 106
55 Cortez, P. de Siqueira.—Amethysts. 106
56 Asevedo, D. J. Santôs.—Diamonds. 106
57 Maciel, D. Ferreira.—Sulphurous water. 106

Metallurgical Products.

58 Commission General for the National Exhibition.
a Gold. 110
b Iron. 111
c Mercury. 113
59 Province of Paraná.—Specimens of gold veins. 110
60 Tourinho, F. A. M.—Magnetic gold. 110
61 Camara, J. Ewbank da.—Auriferous stones. 110
62 Leone, F. M., & Lemos, P. L.—Auriferous minerals. 110
63 Camara, F. T. Vieyra da.—Gold-dust. 110
64 Pórtugol, F. P. de A.—Gold-dust. 110
65 Province of Pernambuco.—Native iron. 110
66 National Museum.
a Iron. 111
b Copper. 112
67 Province of Sancta Catherina.
a Iron. 111
b Nickel. 114
68 Cruz, B. A. da.—Magnetic iron. 111
69 Lellian, Ernesto.—Magnetic iron. 111
70 Ypanema Iron Works.—Bar iron. 111
71 Silva, M. A. Machado da.—Oligistic iron. 111
72 Oliveira, A. C. de.—Oligistic iron. 111
73 Barboda, Nemes.—Oligistic iron. 111
74 Aranjo, J. A. Vieyra de.—Oligistic iron. 111
75 Ledo, Agostinbo E. de.—Oligistic iron. 111
76 Supplicy, J. Francisco.—Pyrites and sulphuret of iron. 111
77 Gasse, F.—Lead foils from Rio de Janeiro. 113

Mine Engineering, Models, Maps, and Sections.

78 Geological Commission.—Geological photographs. 120
79 Gorceix, H.—Geological map of the Chapadao. 120

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

ARGENTINE REPUBLIC.

(Nave to South Avenue, Columns 2 to 5.)

Minerals, Ores, Stone.

Minerals, Ores, Stone, Mining Products.

1 **Raymond, Hipolito, Province of** Mendoza.—Collection of minerals. 100

2 **Provincial Commission, Province of** Mendoza.—Collection of minerals. 100

3 **Lemos, Abraham, Province of** Mendoza.—Minerals for paints. 100

4 **Treloar, William A., Province of** La Rioja.—Collection of minerals. 100

5 **Almonacid & Parchappe, Province of** La Rioja.—Collection of minerals. 100

6 **Illanes, Manuel I., Province of** La Rioja.—Minerals of Cerro de Vinchina. 100

7 **Bascuñan, Francisco, Province of** La Rioja.—Minerals. 100

8 **Provincial Commission, Province of** La Rioja.
a Minerals. 100
b Lime and common gypsum. 103
c White chalk and specimens of colored clay used in the manufacture of pottery and paints; colored chalk. 104

9 **Gelos, Martin, Province of La Rioja.**
a Minerals of Olta. 100
b Calcined lime; gypsum. 103
c Chalk. 104
d Whetstones of "La Torre," in their native state; flint. 106

10 **Vega, Daniel de la, Province of La** Rioja.—A petrifaction. 100

11 **Schröeder, Theodore, Province of La** Rioja.—Copper ore. 100

12 **Gifford, Senor, Province of La Rioja.** —Silver ore. 100

12*a* **Bevan, Eduardo A., Province of** La Rioja.—Ores. 100

13 **Aguilar, Francisco D., Province of** San Juan.
a Minerals. 100
b Mineral waters. 107

14 **Government of the Province of San** Juan.—Collection of minerals. 100

15 **Provincial Commission, Province of** San Luis.
a Collection of minerals. 100
b Stone pestle used by the Indians to grind corn and other grains; stone pan made by Indians, etc. 102

16 **Metzler, A., Province of Catamarca.** —Minerals. 100

17 **Romay, Gabriel, Province of Cata-** marca.—Iron and antimony ores. 100

17*a* **Zorilla, Benjamin, Province of Sal-** ta.—Silver ore. 100

18 **Provincial Sub-commission of Tino-** gasta, Province of Catamarca.—Ores of iron, lead, copper, silver, etc. 100

19 **Galindez, Clásico, Province of Cata-** marca.—Silver and copper ore. 100

20 **Villafañe, Tristan, Province of Cata-** marca.—Silver-bearing galena. 100

20*a* **Bedoya, Segundo, Province of Sal-** ta.—Silver ore. 100

21 **Resoagli, Luis, Province of Corrien-** tes.—Quartz, flint, agate, etc. 100

22 **Mansilla, Manuel, Province of Cor-** rientes.—Quartz, agate, copper ore, and mica. 100

23 **Galarraga, E. G. de, Province of Cor-** rientes.—Crystal rock. 100

23*a* **Tula, Nabor, Province of Catamar-** ca.—Copper ore from the Cerro Negro. 100

24 **Sicard, Juana G. de, Province of Cor-** rientes.—Horn-shaped stone. 100

25 **Porta, Felix, Province of Corrientes.** —Agglomeration of small stones. 100

26 **Acosta de Quirolo, Josefa, Province** of Corrientes.—Crystal rock. 100

27 **Cuña, Americo, Province of Corrien-** tes.—Agate. 100

27*a* **Molina & Carranza, Province of Cat-** amarca.—Ore from the Rosario mine. 100

28 **Cabral y Melo, José Maria, Province** of Corrientes.—Crystal rock and flint. 100

28*a* **Salcedo, Uladislas M., Province of** Catamarca.—Copper and silver ore. 100

29 **Pujol, Nicanor, Province of Corrien-** tes.—Iron ore. 100

30 **Córdoba University, Province of Cór-** doba.—Collection of minerals. 100

30*a* **Muro, Froilan, Province of Cata-** marca.—Iron and copper ore, copperas, and alum. 100

31 **Fragneiro, José M., Province of** Córdoba.—Lead containing silver. 100

32 **Provincial Commission, Province** of Córdoba.
a Lead containing silver, gypsum, various minerals. 100
b Marble. 102
c Whetstones. 106

33 **Vasquez, Lucrecio, Province of Cór-** doba.—Emeralds; round-shaped stone made by Indians. 100

34 **MacDowell, N., Province of Córdo-** ba.—Minerals. 100

35 **Olmos, José V., Province of Córdo-** ba.—Minerals. 100

36 **Provincial Commission, Province** of Salta.
a Galena, silver, and iron ores. 100
b Wrought stone for table top. 102
c Sulphate of lime. 103
d Kaolin. 104

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Minerals, Ores, Stone.

37 Echevarria, Cecillo, Province of Santa Fé.—Minerals; quartz and agates of Alto Uruguay. 100

38 Rap, Eugenio, Province of Tucuman.—Collection of minerals. 100

39 Government of the Province of Jujui.—Silver ore from Tilcará. 100

40 Sub-commission of the Department of Diamante, Province of Entre Rios.—
a Stones found on the shores of the Plata y Uruguay. 100
b Hydraulic cement stones and cement, lime, artificial stone, petrified wood, etc. 103

40*a* Provincial Commission, Province of Catamarca.
a Quartz, garnets, manganese, etc. 100
b Coal. 101
c Soapstone from Ancasti. 102
d Water-lime, gypsum. 103
e Colored clay, soapstone in powder, kaolin, etc. 104
f Mineral waters. 107

40*b* Elordi, Louis, Province of Buenos Ayres.—Copper ore from Patagones. 100

41 Arguello, David, Province of Córdoba.
a Silver ore. 100
b Anthracite coal. 101

42 Galvan, Federico, Province of La Rioja.—Coal from Tumbillos. 101

43 Roman, Gabriel, Province of Catamarca.—Coal. 101

44 Valdes, Emiliano, & Cipriano, Province of Buenos Ayres.
a Colored and other stones from Tandil. 102
b Black and white vegetable clay from Balcarce. 104
c Sand and whetstones. 106

45 Olmos, José V., Province of Córdoba.—White marble. 102

46 Salas, Manuel M., Province of Corrientes.—Marble and crystallized stones. 102

47 Santos, Francisco A., de los, Province of Corrientes.—Hollow unpolished stone. 102

48 Hurley, Tomás, Province of Catamarca.—Granites; copper and black bronzes; antique pieces of stone discovered in the abandoned mine of Ortiz. 102

49 Provincial Commission, Province of Santiago del Estero.
a Dressed stones from the Sierra de Guayacan. 102
b Crystallized and common gypsum. 103
c Colored clay and saltpetre. 104
d Mineral and sarsaparilla waters. 107

50 Provincial Commission, Province of San Juan.—Building stone. 102

51 Avellaneda, Nicolas, Province of Córdoba.—Marble 102

52 Segura, Rufino, Province of Catamarca.—Soapstone, flagstone. 102

53 Sub-commission of Andalgalá, Province of Catamarca.—Soapstone from Belen. 102

54 Riso, Isidoro, Province of Catamarca.
a Soapstone. 102
b Water lime. 103

55 Herrera, Nicolas, Province of Catamarca.—Slate. 102

56 Cornejo, Melchora, T., Province of Salta.
a Carbonate of lime. 103
b Mineral waters. 107

57 Saravia, Pablo, Province of Salta.—Sulphate of lime. 103

58 Fornasari, R., & Facino, H., Province of Entre Rios.—Hydraulic cement, artificial stones. 103

59 Commission of Paranà, Province of Entre Rios.
a Paving-stones, limestones, lime, sulphate of lime, petrified oyster-shells, etc. 103
b Clay, fine sand, calcareous clay, containing gold and silver. 104
c Tripoli. 106

60 Garlive, N., Province of Entre Rios.—Artificial stone. 103

61 Peretti, Santiago, Province of Salta.—Dressed stone and carbonate of lime. 103

63 Solá, Ramon, Province of Entre Rios.—Gypsum. 103

64 Justice of the Peace of Ensenada, Province of Buenos Ayres.—Lime made from shells. 103

65 Pedruncini, Juan, Province of Buenos Ayres.—Shell-lime. 103

66 Valdes, Nicasio, Province of Buenos Ayres.
a Lime from Balcarce. 103
b Red clay. 104

67 Iñiguez, Manuel A., Province of Buenos Ayres.—Limestone from Tandil. 103

68 Commission of Water Works, Province of Buenos Ayres.
a Lime-shells, calcareous stones, raw and burnt cement, cement in shape of bricks. 103
b Clay. 104

69 Welsh, Miguel, Province of Buenos Ayres.—Limestone, quicklime, slaked lime. 103

70 Caetani, Vicente, Province of Buenos Ayres.—Artificial marble. 103

71 Sandrot, José, Province of Buenos Ayres.—Artificial stones. 103

72 Justice of the Peace of Patagones, Province of Buenos Ayres.—Gypsum, etc. 103

73 Ibañez, P., Province of Catamarca.—Stalagmitical lime. 103

74 Provincial Commission, Province of Tucuman.
a Black, yellow, and white limestone, common gypsum. 103
b White clay. 104

75 Paroni, Andrés, Province of Santa Fé.—Hydraulic cement. 103

76 Provincial Commission, Province of Corrientes.—Calcareous stones from Itati. 103

77 Aguilar, Francisco D., Province of San Juan.—Hydraulic lime. 103

78 Gache, Manuel, Province of Buenos Ayres.—Gypsum from Rio Salado. 103

78*a* Carenzo, Nicholas, Province of Salta.—Kaolin, white clay, and chalk. 104

79 Santa Cruz, Simon de, Province of Entre Rios.—Sand from Ibicui. 104

79*a* Tamayo, Sidney, Province of Salta.—White clays. 104

80 Arias, Hilarion, Province of Salta.—Sulphate of lime. 104

81 Lopez, Feliciano, Province of Corrientes.—Clay for the manufacture of crockery, tiles, and bricks, yellow stone for coloring and paint. 10[illegible]

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Minerals, Stone, Metallurgical Products.

82 Sub-commission of Bella Vista, Province of Corrientes.—Stone containing red and yellow coloring substances; clays. 104

84 Calderon, Pedro, Province of Entre Rios.—Vegetable clay. 104

85 Fontes, V. M., & Negra, S., Province of Entre Rios.—Clay for whitewashing. 104

86 Bazan, Abel, Province of La Rioja.—Refractory bricks. 104

87 Barros, José, Province of La Rioja.—Refractory bricks. 104

89 Justice of the Peace of Zarate, Province of Buenos Ayres.—Black and ferruginous clays. 104

90 Lobo, Tristan, Province of Catamarca.—Chalk clay, tiles, and bricks. 104

91 Lafone Quevedo, Samuel A., Province of Catamarca.
a White clay for bricks; refractory bricks. 104
b Hard fossil-ground quartz. 106

92 Caballero, Eugenio, Province of Salta.—Graphite. 105

93 Medina, Luis R., Province of Catamarca. — Whetstones from Concepcion. 106

94 Perez, Luisa, Province of La Rioja.—Mineral water. 107

96 Patron Bros., Province of Salta.—Mineral waters. 107

97 Schmidt, Antonio, Province of San Luis.—Mineral waters. 107

98 Escobar, Juan de D., Province of San Luis.—White-stone water. 107

99 Sub-commission of the Colony of San Carlos, Province of Santa Fé —Vegetable clay. 107

100 Otamendi, Carlos, Province of Buenos Ayres.—Shells from the coast of Balcarce. 107

Metallurgical Products.

101 Gainza, Martin de, Province of Buenos Ayres.—Gold from Patagones. 110

102 Nell, Federico, Province of San Luis.—Gold and washed gold. 110

103 Bertram & Co., Province of San Luis. — Gold from the Descubridora mine. 110

104 Provincial Commission, Province of San Luis.—Gold from La Carolina mine. 110

105 Lafone Quevedo, Samuel A., Province of Catamarca.—Copper ingots. 111

CHILI.

(*North of Nave, Columns 3 to 5.*)

Minerals, Ores, Stone, Metallurgical Products.

Minerals, Ores, Stone, Mining Products.

1 Government of Chili.—Silver and copper ores, and other minerals. 100

2 Sere, Edouard, Santiago.—Minerals. 100

3 Escobar, E., Copiapo.—Gold, silver, and copper ores, and other valuable minerals. 100

4 Urmenta & Errazuriez, Santiago.—Copper ores from Tamagua. 100

5 Escudero, R., Santiago.—Stone. 102

6 Sanchez, Francisco, Talca.—Carved stone from Talca. 102

7 Cadiz, Jose, Gabriel, Santiago.—
a Artificial marble balustrade, mantel, pilasters, and columns. 103
b Natural and powdered gypsum. 107

Metallurgical Products.

8 Government of Chili.—Copper in ingots. 112

Mining Engineering.

9 Errazuriz, Maximiano, Santiago.—Strata of coal mine in Lebu. 121

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

MEXICO.

(*North of Nave, Columns 64 to 67.*)

Minerals, Ores, Stone, Metallurgical Products.

Minerals, Ores, Stone, Mining Products.

1 Ochva, Gaspen, Sanchez, City of Mexico.—Sulphur from the Volcano Popocatepetl. 100

2 Mexican Mining Society, City of Mexico.—Minerals and rocks. 100

3 School of Engineers, City of Mexico.—Minerals. 100

4 National Museum, City of Mexico.—Minerals and rocks. 100

5 Barcena, Mariano, City of Mexico.—Livingstonite. 100

6 Folsa, M. José, Pregones, State of Guerrero.—Quicksilver ores. 100

7 Natural History Society, City of Mexico.—Minerals. 100

8 Government of the State of Durango, Durango City.—Iron ores. 100

8*a* Muller, N., Chihuahua City.—Meteoric iron. 100

9 Soto, Mayor C., State of Michoacan.—Minerals from the mineral district of Angangueo. 100

10 Rull, Miguel, City of Mexico.—Minerals. 100

10*a* Corcuera, Manuel, State of Jalisco.—Iron ores. 100

11 Real Del Monte Company.—Minerals. 100

12 State Government of Oaxaca.—Minerals. 100

13 San Rafael Company.—Minerals from Zacatecas City. 100

14 Quebradella Company, Zacatecas City.—Minerals. 100

15 Mala Noche Company, Zacatecas City.—Minerals. 100

16 Ponce, Juan, Zacatecas City.—Minerals. 100

17 Romirez, S. & C. J., City of Mexico.—Rocks. 100

18 Barcena, Manimo, City of Mexico.—Fossils, rocks, and geological maps. 100

19 Farrugia, Federico, State of Hidalgo.—Minerals and metallurgical products. 100

20 Zenteno, Estevan, Fempoal, Vera Cruz.—Coal. 101

21 Gutierrez, Julian, & Co., City of Mexico.—Marble from the State of Puebla. 102

22 Bocanegra, S., State of San Luis Potosi.—Marbles. 102

23 State Government of Hidalgo.—Argils. 104

Metallurgical Products.

24 Bermegillo, Pio, State of Michoacan.—Cake of silver from Argangueo. 110

25 Encarnacion Company.—Wrought and cast iron. 111

26 Guadalupe Company.—Wrought and cast iron. 111

27 Esperon, José, Oaxaca City.—Wrought and cast iron. 111

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

SPAIN.

(*South of Nave, Columns 16 to 18.*)

Minerals, Ores, Stone.

1 **Arrivillaga, Agustin, Fondon,** Province of Almería.—Galena. 100

2 **Fernandez, Diego, Cuevas,** Province of Almería.—Argentiferous galena and barytes. 100

3 **Campos, Francisco, Fondon,** Province of Almería.—Laminated galena. 100

4 **Montoro, Francisco, Vera,** Province of Almería.—Laminated galena. 100

5 **Bachiller, Guillermo, Cuevas,** Province of Almería.—Argentiferous galena with iron pyrites. 100

6 **Cerezuelo, Gonzalo, Berja,** Province of Almería.—Laminated galena. 100

7 **Gonzalez, Gabriel, Laujar,** Province of Almería.—Laminated galena. 100

8 **Terriza, José, Berja,** Province of Almería.—Laminated galena. 100

9 **Rapalo, José, Almería,** Province of Almería.—Galena. 100

10 **Olmo, José del, Berja,** Province of Almería.—Galena, stained with minium. 100

11 **Cavanillas, Juan, Cuevas,** Province of Almería.—Argentiferous galena. 100

12 **Corrello, Rafael, Almozita,** Province of Almería.—Galena. 100

13 **Abad, Jerónimo, Nijar,** Province of Almería.—Pyrolusite. 100

14 **Ayala, Antonio, Lucar,** Province of Almería.—Steatite. 100

15 **Padilla, Francisco, Nijar,** Province of Almería.—Calamine and carbonate of lead. 100

16 **Blanco, Prudencio, Alcolea,** Province of Almería.—Gray calamine. 100

17 **Duran, Estéban, Almería.**—Oxide of copper and calamine. 100

18 **Ramirez, Luis, Lucar,** Province of Almería.—Black oxide of cobalt. 100

19 **Rio, Eustaquio, Huercal-Overa,** Province of Almería.—Arseniate of cobalt. 100

20 **Real, José, Almería.**—Carbonate of lead. 100

21 **Gomez, Crisanto de, Nijar,** Province of Almería.—Carbonate of lead. 100

22 **Trell, Miguel del, Berja,** Province of Almería.—Carbonate of calamine. 100

23 **Daza y Ruiz, Francisco, Purchena,** Province of Almería.—Iron ore. 100

23*a* **Daza y Ruiz, Seron,** Province of Almería—Iron ore. 100

23*b* **Daza y Ruiz, Lucar,** Province of Almería—Cinnabar ore and cobalt. 100

24 **Vivas Asqueros, Antonio, Pechina,** Province of Almería.—Iron ore. 100

25 **Linares, Clemente, Albanchez,** Province of Almería.—Iron ore. 100

26 **Villalobos Brothers, Berja,** Province of Almería.—Sulphate of lead. 100

27 **Hernández, Secundino, Feria,** Province of Badajoz.—Iron ores. 100

28 **Successful Society, Alconchel Chelos,** Province of Badajoz.—Chakopirita. 100

29 **Laffite & Co., Castuera,** Province of Badajoz.—Galena and argentiferous lead. 100

30 **Mateos y Morato, Santiago, Azuaga,** Province of Badajoz.—Sulphate of lead. 100

31 **Grappin, G. de, Llerena,** Province of Badajoz.—Galena. 100

31*a* **Grappin, G. de, Malpartida,** Province of Cáceres.—Phosphate of lime. 100

31*b* **Grappin, G. de, Aldeacentenera,** Province of Cáceres.—Copper. 100

31*c* **Grappin, G. de,** various towns of the province of Cáceres.—Collection of ores. 100

32 **Martinez de Santa Maria, Juan, Burguillos,** Province of Badajoz.—Magnetic iron ore. 100

33 **Lligé & de Planell, Juan, Gabá y del Figaró,** Province of Barcelona.—Iron ore with manganese. 100

34 **O'Daly, Olimpia Vallcareara,** Province of Barcelona.—Magnetic iron. 100

35 **Anglada & Co., Pontons,** Province of Barcelona.—Carbonate of zinc. 100

36 **Provincial Commission, Atapuerca,** Province of Búrgos.—Stalactites. 100

37 **Richard & Granducontangne, Riocavado,** Province of Búrgos.—Hematites. 100

37*a* **Richard & Granducontangne, Huerto-abajo,** Province of Búrgos.—Hematites. 100

37*b* **Richard & Granducontangne, Monterrubio de la Sierra,** Province of Búrgos.—Hematites. 100

38 **Gutierrez, Julian, Olmos de Atapuerca,** Province of Búrgos.—Yellow and red ochre. 100

39 **Oria, Eugenio, Pancorbo,** Province of Búrgos.—Oxide of iron. 100

40 **Corporation of Pineda.**—Micaceous iron. 100

41 **Muñoz Bello, Francisco, Cáceres.**—Phosphate of lime. 100

42 **Gonzalez, Diego Bibiano, Cáceres.**—Calcareous phosphates. 100

43 **Rocandio, Jorge, & Sbarby, Manuel, Zarza y Ciclavin,** Province of Cáceres.—Calcareous phosphate. 100

For classes of exhibits indicated by numbers at end of entries, see Classification, pp. 27-45.

Minerals, Ores.

44 Sande Olivares, Gerónimo de, Garrobillas de Alconetar, Province of Cáceres, —Copper ore. 100

45 Miro Cerdá, various towns of the Province of Castellon.—Ores. 100

46 Provincial Board of Agriculture, Province of Castellon.—Galena and calamine. 100

47 Caminero, José, Ciudad-Real.—Ores. 100

48 Piquet, Alfonzo Emilio, Horcajo, Province of Ciudad-Real.—Ores. 100

49 Mines of Almaden, Almaden, Ciudad-Real.—Cinnabar ores and rocks. 100

50 Ducloux, Francisco Javier, Province of Barcelona.—Ores. 100

51 Gomez Ruiz, widow & sons of Gabriel, San Julian del Llot, Province of Gerona.—Lead ore. 100

52 Hisern, Joaquin, Caratáunas, Province of Granada.—Hematite iron. 100

53 Vasquez, Diego, Pitres, Province of Granada.—Quicksilver ore. 100

54 Corps of Mining Engineers, Hiendelaencina, Province of Guadalajara.—Brittle silver, blue copper, and malachites. 100

55 Gracian, Andrés, Huelva.—Sulphur of argentiferous antimony. 100

56 Ibarra, José Maria de, Huelva.—Collection of cuprous-iron pyrites and products. 100

57 Vasquez y Lopez, M., Zalamea la Real, Province of Huelva.—Peroxide of manganese. 100

58 Rieken y Gerdes, George, Mina Bronteriza, Huelva.—Sulphur. 100

59 Solo, Emilio de, Alosno, Province of Huelva.—Peroxide of manganese. 100

60 Diaz y Gomez de Cadiz, Eduardo, Valverde del Camino, Province of Huelva.—Manganese ore. 100

61 Bull & West, Diego, Valverde del Camino, province of Huelva.—Cuprous pyrites. 100

62 Tharsis Sulphur & Copper Co. (limited), Alosno, Province of Huelva.—Ores and slags. 100

63 Rio Tinto Co. (limited), Province of Huelva.—Ores. 100

64 La Buena Fè, Society, Linares, Province of Jaen.—Laminated galena, etc. 100

65 La Familia Society, Linares, Province of Jaen.—Laminated galena and galena in dross. 100

66 La Inocencia Mining Society, Guarroman, Province of Jaen.—Laminated galena and galena in dross. 100

67 Stolberg & Westfalia, Anonymous Society, Linares, Province of Jaen.—Laminated galena and galena in dross. 100

68 English, Heirs of Juan Carlos, Linares, Province of Jaen.—Laminated and ground galena and galena in dross. 100

69 Accino y Vazquez de Araujo, Enrique, Linares, Province of Jaen.—Laminated galena. 100

70 Sopwith, Tomás, Linares, Province of Jaen.—Laminated galena. 100

71 Bonaplata, Eduardo, Bailén, Province of Jaen.—Galena. 100

72 Figueroa, Ignacio, Linares, Province of Jaen.—Galena. 100

73 Amado Salazar, Enrique, Bailén, Province of Jaen.—Galena. 100

74 Lohnstein, Emilio, Linares, Province of Jaen.—Galena. 100

75 Arboledas, Martin, Linares, Province of Jaen.—Sulphate of lead. 100

76 Villanova, José Genaro, Linares, Province of Jaen.—Earth from a lead mine, and potter's antimony. 100

77 Polo Leoncio, Villafeliz, Province of Leon.—Iron ore. 100

78 Alonso, Casimiro, Leon.—Oxidized iron ore. 100

79 Bertrand, Casimiro, Alins, Lérida.—Oaelleresa, native iron. 100

80 Reynante y Cancio, Manuel, Rivadeo, Lugo.—Ores. 100

81 Corps of Mining Engineers, Madrid.—Ores. 100

82 Naranjo y Garza, Felipe, from various towns of the Province of Madrid.—Ores. 100

83 Mining Engineers, Málaga.—Malachite copper ore. 100

83*a* Mining Engineers, Marbella, Province of Málaga.—Magnetic iron. 100

83*b* Mining Engineers, Estepona, Province of Málaga.—Magnetic iron. 100

83*c* Mining Engineers, Mijas, Province of Málaga.—Hydrated iron, galena, and magnetic iron. 100

83*d* Mining Engineers, Istan, Province of Málaga.—Magnetic iron. 100

83*e* Mining Engineers, Carratraca, Province of Málaga.—Hematites. 100

83*f* Mining Engineers, Antequera, Province of Málaga.—Oligistic iron. 100

83*g* Mining Engineers, Coin, Province of Málaga.—Hematites. 100

83*h* Mining Engineers, Benahanís, Province of Málaga.—Sulpho-arsenic nickel and sulphurous nickel. 100

83*k* Mining Engineers, Benalmadena, Province of Málaga.—Hydrated iron. 100

83*l* Mining Engineers, Alora, Province of Málaga.—Nickel. 100

83*m* Mining Engineers, Almogia, Province of Málaga.—Malachites and pyrites of copper. 100

83*n* Mining Engineers, Alhaurin el Grande, Province of Málaga.—Galena and carbonate of lead. 100

83*o* Mining Engineers, Colmenar, Province of Málaga.—Galena and pyrites of copper. 100

83*p* Mining Engineers, Nerja, Province of Málaga.—Galena. 100

83*q* Mining Engineers, Archidona, Province of Málaga.—Oligistic iron. 100

84 Blandin y Carrese, Manuel, Vera, Province of Navarra.—Iron ores. 100

85 Macla & Co., Demètrio, Penonta, Province of Orense.—Tin ore. 100

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Minerals, Ores, Stone.

86 Vila, Francisco, Pentes, Province of Orense.—Tin ore. 100

87 Mining District of Oviedo, various towns of the Province of Oviedo.—Ores. 100

88 Acebal y Menendez, Benito, Carreñoa, Province of Oviedo.—Iron ore. 100

89 Uria Pinilla, Navia de Luarca, Province of Oviedo.—Iron ores. 100

90 National Factory of Trubia, Trubia, Province of Oviedo.—Iron ores. 100

91 Diestro y Lastra, Antonio del, Mier, Province of Oviedo.—Ores. 100

92 Somoza Piñeiro, Ramon, Merza, Province of Pontevedra.—Magnetic iron. 100

93 Mining Society, Salamanca.—Tin ore. 100

94 Neeschourrer Bellesfrod & Co., from various towns and provinces.—Ores. 100

95 Mining & Foundry Co. of Santander.—Ores. 100

96 Buen Deseo Mining Society, Peñalcázar, Province of Soria.—Argentiferous lead ore. 100

97 Perez, Bernardo, Peñalcàzar, Province of Soria.—Argentiferous lead ore. 100

98 Director of the Company of Mines & the Manufactory del Pedroso, Cazalla de la Sierra, Province of Seville.—Iron ores. 100

99 Gomez, José María, Vimbodí, Province of Tarragona.—Pyrites and barytes in powder. 100

100 Monner, Francisco, Las Borjas, Province of Tarragona.—Oligistic iron. 100

101 Britó & Sierra, Camañas, Province of Ternel.—Crystallized manganese ore, pyrolusite. 100

102 Maorad, Benito, Camañas, Province of Ternel.—Manganese. 100

103 Valdemoro, Juan Francisco, Teruel.—Oxide of iron. 100

104 Belles, James, Albarracin, Province of Teruel.—Oxide of iron. 100

105 Perez, Francisco, Linares, Province of Teruel.—Calamine. 100

106 Diego, Vicente de, Bilbao, Province of Vizcaya.—Iron ores. 100

107 Bourson, Miguel, Somorrostro, Province of Vizcaya.—Iron ore. 100

108 Bilbao Iron Ore Company (limited), Galdamés, Province of Vizcaya.—Iron ore. 100

109 Zabalo, Andrés, Illueca, Zaragoza.—Oligistic iron. 100

109*a* Mouner, Francisco, Reus, Province of Tarragona.—Ores. 100

110 Rueda, Manuel, Mesones, Province of Zaragoza.—Oligistic iron. 100

111 Boiven y Senty, Adolfo, Maestu, Province of Alava.—Natural rock asphaltum, refined bitumen, pure and dry asphaltum. 101

112 Asphaltum Company of Maestu, Vitoria.—Asphaltum. 101

113 Mining Union, Calaf, Province of Barcelona.—Lignite. 101

114 La Perla Bergadana Mining Society, Pont de Raventi, Province of Barcelona.—Mineral coal. 110

115 Gispert y Pujals, Manuel, Barcelona.—Mineral coal. 101

116 Oria, Eugenio, Brieva de Juarros, Province of Búrgos.—Dry pit-coal. 101

117 Juarreña Society, San Adrian de Juarros, Province of Búrgos.—Dry pit-coal. 101

118 Miró y Cerdá, C., from various towns of the Province of Castellón.—Coal. 101

119 Metallurgical Coal-pit Company of Belmez, Peñarroya, Province of Córdoba—Pit-coal, and coke. 101

120 El Veterano Mineral Society, Surroca, Province of Gerona.—Pitcoal and coke; rocks, illustrating the geological composition of the coal districts of Surroca and Ogassa. 101

121 Board of Agriculture, Industry, & Commerce, Oviedo.—Coke and mineral coal. 101

121*a* Board of Agriculture, Industry, & Commerce, Mieres, Province of Oviedo.—Coal block, weighing 30 cwt. 101

122 Coal-pit Society of Muñon, Muñon, Pola de Lena, Province of Oviedo.—Mineral coal. 101

123 National Factory of Trubia, Trubia, Province of Oviedo.—Mineral coal and coke. 101

124 García de los Rios, Eduardo, Mieres, Province of Oviedo.—Pit-coal. 101

125 Vigon, Braulio, Carrándi, Province of Oviedo.—Anthracite coal. 101

126 Mines of Castilla, Barruelo, Province of Palencia.—Pit-coal and coke. 101

127 Fernandez Castañeda, Telesforo, Reinosa, Province of Santander.—Lignite. 101

128 Pereire, Isaac, Villanueva del Rio, Province of Seville.—Coal. 101

129 Corps of Mining Engineers, Soria.—Impregnated asphaltum. 101

130 Peguero, Andrés, Utrillas, Province of Teruel.—Coal. 101

131 Sierra, Francisco, Utrillas, Province of Teruel.—Coal. 101

132 Estéban, Cristóbal, Libros, Province of Teruel.—Brimstone. 101

133 Fernandez, Francisco, Havana, Island of Cuba.—Asphaltum. 101

134 Blanquer Ronda, Mariano, Callosa de Ensarriá, Province of Alicante.—Black marble. 102

135 Serrano, Cardona & Co., Monóvar, Province of Alicante.—Tubing and pillar, with enclosure. 102

136 Jovér, Francisco, Almería, Province of Almería.—Construction stones. 102

136*a* Abelló y Boada, Pablo, Sarreal, Province of Tarragona.—Alabaster. 102

137 Daza, Francisco, Macael, Province of Almería.—Marble. 102

138 Trèll, Miguel del, Berja, Province of Almería.—Marble for construction. 102

139 Chief Engineer of Highways, Valdemolinos, Province of Avila.—Granite. 102

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Minerals, Stone.

140 Estevez, Manuel Benito, Badajoz.—Slates. 10

143 Provincial Commission of Villagalijo, Province of Búrgos.—Alabaster, marble, calcareous stone, slate, and wheat stones. 102

144 Baldirez, Santiago, Villorobe, Province of Búrgos.—Slates. 102

145 Richard & Granducontagne, Barbadillo de Herreros, Province of Búrgos.—Gravel. 102

146 Corporation of Villamartin, Province of Cádiz.—Jasper. 102

147 Corporation of Chiclana, Province of Cádiz.—Jasper. 102

148 Corporation of Grazalema, Province of Cádiz.—Colored marble. 102

149 Nuñez, José Marla, Cádiz.—Collection of marbles and jaspers. 102

150 Feo y Hermos, Miguel Alfonso, San Miguel de Abona, Canary Islands.—Flagstone. 102

151 Gamez, Angel, Santa Cruz de Teneriffe, Canary Islands.—Rock, lava, and volcanic products. 102

152 Society of Friends, Las Palmas, Canary Islands.—Jasper. 102

153 Provincial Board of Agriculture, Calig, Province of Castellon.—Marble and calcareous stone. 102

154 Corporation of Cabra, Province of Córdoba.—Marbles. 102

155 Lopez Seoane, Victor, Ferrol, Province of La Coruña.—Stones and marbles. 102

156 Corporation of Portilla de la Sierra, Province of Cuenca.—Marbles. 102

157 Corporation of La Cierva, Province of Cuenca.—Marble. 102

158 Yañiz, Ambrosio, Las Majadas, Province of Cuenca.—Marbles. 102

159 Madero, Cirilo, Arcos de la Cantera, Province of Cuenca.—Calcareous stone. 102

160 Rubio Perez, Juan, Guejar, Province of Granada.—Serpentine. 102

161 Corporation of Fuente Heridos, Province of Huelva.—Marble. 102

162 Corporation of Galaroza, Province of Huelva.—Marbles. 102

163 Gonzalez Molada, Justo, Alcaudete, Province of Jaen.—Construction materials. 102

164 Corporation of Castillo de Locubin, Province of Jaen.—Jasper. 102

165 Provincial Institute, Leon.—Marbles and alabasters. 102

166 Uleeschouuer, Bellefroid, & Co., Unzanilla, Province of Leon.—Marble formed by calcareous fossils. 102

167 Institute of Secondary Instruction of Mondoñedo, Province of Lugo.—Marbles and slates. 102

168 Corps of Mining Engineers, Province of Málaga.—Marbles. 102

169 Corporation of Mijas, Province of Málaga.—Marbles. 102

170 Corps of Mining Engineers, Province of Murcia.—Marble, grit, construction stone, and alabaster. 102

171 Corporation of Piloña, Province of Oviedo.—Marbles. 102

172 Corporation of Salas, Province of Oviedo.—Marble. 102

173 Corporation of Colunga, Province of Oviedo.—Marble. 102

174 Odriozola, Joaquin de, Province of Segovia.—Construction stones. 102

175 Corporation of Linares, Province of Segovia.—Calcareous construction stones. 102

176 Corporation of Balisa, Province of Segovia.—Granite and siliceous stone. 102

177 Corporation of Aragoneses, Province of Segovia.—Stone. 102

178 Corporation of Moron, Province of Sevilla.—Jasper. 102

179 Corporation of Cantalucia, Province of Soria.—Marbles. 102

180 Corporation of Espeja, Province of Soria.—Marbles. 102

181 Garcia, Cayètano, Espejon, Province of Soria.—Marbles. 102

182 Gomez, José Maria, Sareal, Province of Tarragona.—Alabaster and marble, in powder. 102

183 Board of Public Works, Campaspero, Province of Valladolid.—Calcareous stone. 102

184 Generès, José, Sarreal, Province of Tarragona.—Alabaster. 102

185 Board of Public Works, Villarmentero, Province of Valladolid.—Crystallized gypsum. 102

186 Corporation of Ricla, Province of Zaragoza.—Marbles. 102

187 Corporation of Calatorao, Province of Zaragoza.—Black marble. 102

188 Corporation of Fuentes de Ebro, Province of Zaragoza.—Alabaster. 102

189 Boada, Jerónimo, Mataró, Province of Barcelona.—Artificial stone. 103

190 Navarro, Antonio, Las Palmas, Canary Islands.—Calcareous stone and powdered lime. 103

191 Lledó y Gomez, Cipriano, Cuenca.—White gypsum. 103

192 Fernandez, Gervasio, Torrubia del Campo, Province of Cuenca.—Alabastrian gypsum. 103

193 Lopez, Simon, Torrubia del Campo, Province of Cuenca.—Powdered alabastrian gypsum. 103

194 Corporation of Ayamonte, Province of Huelva.—Lime. 103

195 District of Mining Engineers, Province of Málaga.—Gypsum. 103

196 Corps of Mining Engineers, Province of Múrcia.—White and black calcareous stone. 103

197 Corporation of Moron, Province of Seville.—Gypsum and lime. 103

198 Tomás, Antonio, Reus, Province of Tarragona.—Sulphate of barytes and lime. 103

199 Cervera, Luis, Montblanch, Province of Tarragona.—Sulphate of hydrated lime. 103

200 Barran, Leoncio, Alcalá de Guadaira, Province of Seville.—Slack, quicklime, limestone, etc. 103

201 Climent, Hernandez, Francisco, Carcagente, Province of Valencia.—Artificial stone. 103

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Minerals, Stone.

202 Giralt, Nicolás, Regla, Cuba.—Lime. 103

203 Benavides, Mariano, La Roda, Province of Albacete. — Magnesian earth. 104

204 Saavedra Ramirez, Alejo, Somotin, Province of Almería.—Silicate of magnesia. 104

205 Daza y Ruiz, Francisco, Somotin, Province of Almería.—Silicate of magnesia. 104

206 Masoliver, Bartolomé, Barcelona.—Chalk and volcanic clay. 104

207 Granducontangne, Richard, Barbadillo de Herreros, Province of Búrgos.—Argil. 104

208 Oria, Eugenio, Pancorbo, Province of Búrgos.—Bricks. 104

209 Provincial Commissions of various towns, Province of Búrgos.—Argil and clay. 104

210 Foundry & Delft Factory of Sargadelos, Cervo, Province of Lugo.—Crude materials for the manufacture of delft. 104

211 Banante, Juan, Chantada, Province of Lugo.—Argil. 104

212 District of Mining Engineers, Marbella, Province of Málaga.—Steatite. 104

213 Provincial Board of Agriculture, Industry, & Commerce, Collera, Province of Oviedo.—Spar. 104

214 Uria & Pinilla, Navia de Laurca, Province of Oviedo.—Refractory stone. 104

215 Factory of Trubia, Trubia, Province of Oviedo.—Argil, silicate, and lime. 104

216 Villar Cagide, Joaquin, Santa María de Abades, Province of Pontevedra.—Steatites. 104

217 Matheu, Antonio, Montblanch, Province of Tarragona.—Spanish white. 104

218 Corporation of Pinell, Province of Tarragona.—Refractory earth. 104

219 Corps of Mining Engineers, Zaragoza.—Argil. 104

220 District Mining Engineers, Igualeja, Province of Málaga.—Graphite. 105

221 Villalonga y Perez, Antonio, Capdepera, Baleares.—Tripoli. 105

222 Corporation of Cabra del Santo Cristo, Province of Jaen.—Whetstones. 106

223 Acebal y Menendez, Benito, Oviedo.—Grindstones. 106

224 Peguero, Andrés, Utrilla, Province of Teruel.—Jet. 106

225 Pedro, Cármen de, La Rambla, Province of Teruel.—Jet. 106

226 Sierra, Francisco, Utrilla, Province of Teruel.—Jet. 106

227 Villalba, Gregorio, Utrilla, Province of Teruel.—Jet. 106

228 Sanz, Mariano, Patatrubio, Province of Teruel.—Jet. 106

229 Clarós, Pablo, Utrilla, Province of Teruel.—Jet. 106

230 Banquells & Rascon, Francisco, Novelda, Province of Alicante.—Sulphurous mineral water from Salinetas. 107

231 Trell, Miguel del, Berja, Province of Almería.—Gypsum. 107

232 Mejías Moreno, José, Pechina, Province of Almería.—Lamellated gypsum. 107

233 Alonzo Cortés, Manuel, Pozas, Province of Búrgos.—Crude and refined salt. 107

234 Puig, Felipe, Miranda, Province of Búrgos.—Crude and refined salt. 107

235 Cerezanian Society, Cerezo, Province of Búrgos.—Sulphate of soda. 107

236 Constancia Society, Cerezo, Province of Búrgos.—Sulphate of soda. 107

237 Riscal de Alegre, Marquis of, Alia, Province of Cáceres.—Clay marl. 107

238 Corporation of Santa-Ella, Province of Córdoba.—Medicinal mineral waters. 107

239 Corporation of Montoro, Province of Córdoba.—Sulphurous water. 107

240 Lopez, José María, Lucena, Province of Córdoba.—Mineral water. 107

241 Marin Manuel, Villaharta, Province of Córdoba.—Mineral water. 107

242 Perafita Gavigola, Francisca, Gerona.—Carbonic water. 107

243 Medinaceli, Duke of, Gerona.—Ferruginous and sulphurous water. 107

244 Garcia, Gabriel, Gerona.—Ferruginous carbonic water. 107

245 Vilaret, José, Gerona.—Carbonic water. 107

246 Darnius, Count of, Gerona.—Ferruginous and sulphurous water. 107

247 Corporation of Marmolejo, Province of Jaen.—Acidulous and carbonic waters with iron. 107

248 Gutierrez Rodriguez, Cayetano, Mogrovejo, Province of Leon.—Mineral waters. 107

249 Borregan del Blanco, Dominga, Mogrovejo, Province of Leon.—Mineral waters. 107

250 Bathing Establishment, Ponferrada, Province of Leon.—Mineral waters. 107

251 Damian García, José, San Adrian de Vegaquemada, Province of Leon.—Mineral and medicinal waters. 107

252 Corporation of Navajun, Province of Logroño.—Mineral waters. 107

253 Diez Brothers, Grávalos, Province of Logroño.—Sulphurous waters. 117

254 Lopez Losada, Antonio, Incio, Province of Lugo.—Ferruginous waters. 107

255 Niera Gayoso, Dositeo, Lugo.—Sulphurous waters. 107

256 Pardo Montero, Ramon, Trasparga, Province of Lugo. — Sulphurous waters. 107

257 Benevolent Societies, of various towns and provinces —Mineral waters. 107

258 Corporation of Mollina, Province of Málaga.—Mineral waters. 107

259 Corporation of Carratraca, Province of Málaga.—Mineral waters. 107

260 Corporation of Periana, Province of Málaga.—Mineral waters. 107

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Minerals, Metallurgical Products, Mining Engineering.

261 Corporation of Tolox, Province of Málaga.—Waters from Fuente Acuargosa. 107

262 Provincial Commission, Murcia.—Waters from Archena. 107

263 Corporation of Verin, Province of Orense.—Mineral waters. 107

264 Corporation of Carballino, Province of Orense.—Thermal medicinal waters. 107

265 Gonzalez Alegre, José Las Caldas, Province of Oviedo.—Thermal waters. 107

266 Casariego, Cayetano, Prelo, Province of Oviedo.—Alkaline sulphurous waters. 107

266*a* Casariego, Cayetano, Buyeres de Nava, Province of Oviedo.—Ferruginous water. 107

267 Cortines, Augustin de, Puentenausa, Province of Santander.—Sulphurous waters. 107

268 Calderon Revuelta, Francisco, Alceda, Province of Santander.—Mineral sulphurous water. 107

269 Gutierrez de Ceballos, José, Caldas de Besaya, Province of Santander.—Mineral waters. 107

270 Ana Micó, Widow of Ferrandis, Játiva, Province of Valencia.—Sulphurous and ferruginous waters. 107

271 Durege, Julio, San Diego de los Baños, Island of Cuba.—View of sulphurous baths and springs. 107

Metallurgical Products.

272 Richard & Granducontagne, Barbadillo de Herreros, Province of Búrgos.—Soft iron and pig iron. 111

273 Corporation of Cobeta, Province of Guadalajara.—Iron and iron ore. 111

274 Arroyo, Juan, Cervantes, Province of Lugo.—Iron. 111

275 Ojea Porras, José, Cervantes, Province of Lugo.—Iron. 111

276 Somoza, Juan Manuel, Caurel, Province of Lugo.—Iron. 111

277 Lopez, José Maria, Puertomarin, Province of Lugo.—Iron. 111

278 Foundry & Delft Factory of Sargadelos, Servo, Province of Lugo.—Cast ingot. 111

279 Monriz, Gabriel, Lugo.—Horse bit. 111

280 Corral, Francisco, Triacastela, Province of Lugo.—Horse shoes. 111

281 Heredia, Sons of M. A., Málaga.—Iron, plates, boiler-plates, etc. 111

282 District Mining Engineers, Málaga.—Iron slag. 111

283 National Factory of Trubia, Oviedo.—Iron, steel, etc. 111

284 Uria & Pinilla, Navia of Luarea, Province of Oviedo.—Iron ingot. 111

286 Director of the Mining & Manufacturing Company del Pedroso, Cazalla de la Sierra, Province of Seville.—Iron castings and iron plates. 111

287 Belles, James, Albarracin, Province of Teruel.—Forged iron. 111

288 Valdemoro, Juan Francisco, Teruel.—Forged iron. 111

289 Ibarra & Co., Baracaldo, Province of Viscaya.—Iron. 111

290 Corps of Mining Engineers, Huelva.—Copper cement and copper. 112

291 Villalobos Bros., Berja, Province of Almería.—Lead. 113

292 Mines of Almadén, Province of Ciudad-Real.—Quicksilver ore. 113

293 Figueroa, Ignacio, Guarroman, Province of Jaen.—Lead in pigs. 113

294 Velasco, Bros, Linares, Province of Jaen.—Lead bars. 113

295 Macia & Co., Demetrio, Penouta, Province of Orense.—Tin bar. 113

296 Vila Yanez, Francisco, Pentes, Province of Orense.—Tin. 113

297 El Porvenir Mining Society, Mieres, Province of Oviedo.—Tin. 113

298 Alen, Pedro & Manuel, Santa Maria de Acibeiro, Province of Pontevedra.—Tin. 113

299 Vazquez Gulias, Francisco, Beariz, Province of Orense.—Oxide of tin. 113

300 Rui & Tolon, Barcelona.—White metal. 114

Mining Engineering.

301 Piquet, Alfonzo Emilio, Horcajo de los Montes, Province de Ciudad-Real.—Plan of the mines of Horcajo. 120

302 Mines of Almadén, Province of Ciudad-Real.—Plans of subterranean works, machines, etc. 120

303 Grappin, G., Salorino, Province of Cáceres.—Model of the mine Constancia. 121

304 Sabate Brunet, Salvador, Barcelona.—Instruments for the exploration of hard rocks. 120

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

PHILIPPINE ISLANDS.

(*South of Nave, Columns 16 to 18.*)

Minerals, Ores, Stone, Metallurgical Products.

Minerals, Ores, Stones, Mining Products.

1 **Inspection of Mines, Province of Cebŭ.**—Fossil charcoal and auriferous galena. 100

2 **Con-ui, Isaac, Province of Cebŭ.**—Sand with fossils, and fossil charcoal. 100

3 **Manzano, Juan., Province of Albay.**—Fossil charcoal. 100

4 **Perez, Norverto, R.P.Fr., Province of Pangasinan.**—Rock argil and volcanic tophus. 100

5 **Provincial Commission of Camarines Norte.**—Oxydized magnetite, chromate of lead, auriferous minerals. 100

6 **Llanos, R.P.Fr. Antonio, Province of Lepanto.**—Minerals and products of furnaces. 100

7 **Veloso, Pascal, Province of Cebŭ.**—Fossil charcoal and auriferous galena. 100

8 **Anchuelo, Quiterio, Province of Bulacan.**—Oligistic iron. 100

9 **Inspection of Mines, Province of Camarines Norte.**—Cupreous sand with native copper. 100

10 **Inspection of Mines, Province of Bulacan.**—Oxydized magnetite. 100

11 **Commission of the District of Benguet, Province of Benguet.**—Auriferous sand. 100

12 **Inspection of Mines, Province of Camarines Sur.**—Fossil charcoal. 100

13 **Inspection of Mines, Province of Albay.**—Fossil charcoal, argil, quartzose vein, jet, and sulphur. 100

14 **Alonzŏ, Teodoro, Province of Manila.**—Amorphous phosphorus. 100

15 **Inspection of Mines, Province of Lyte.**
a Sulphur. 100
b Marble. 102

16 **Municipal Athenæum, Province of Manila.**—Marble and jasper. 102

Metallurgical Products.

17 **Provincial Commission of Masbate.**—Gold-dust and grains. 110

18 **Commission of the District of Lepanto, Province of Lepanto.**—Gold-dust and gold. 110

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45

PORTUGAL.

(*South of South Avenue, Columns 13 to 17.*)

Minerals, Ores, Stone.

Minerals, Ores, Stones, Mining Products.

1 Antonio, Martins, Henriques, & Co., Mont Alto.—Antimony ore from Mont Alto. 100

2 Cortes Pereira Antimony Mine Exploring Co.—Antimony ore. 100

3 Antimony Mining Co. of Corte Pereira.—Antimony ore. 100

4 Blanck, Carlos Frederico, Lisbon.—Antimony ore from Herdade da Prata. 100

5 Barriga, Antonio F., Portalegre.—Quartz of Valle de Peso. 100

8 Caveira Mining Co., Grandola.—Copper ore from the Caveira mine. 100

9 Deliguy, Ernest, Lisbon.—Copper ore. 100

10 Eliott, George, & Ferreira Castello, José H., Lisbon.—Iron ores from Ares Zambujal and San Bartholomeu mines. 100

11 Eliott, George, Alvito.—Iron ores from San Bartholomeu and Zambujal mines. 100

12 Feurheerd, F. Detlof, & Cruickshank, William, Braçal.—Lead and zinc ores from Braçal and Malhada mines; copper ore from Chança. 100

13 Giron, D. José, Lagoas do Paço.—Manganese ore. 100

14 Gomes, Alonso, Mertola.—Manganese ore from the Paraiso, Ferragudo, and Calvo mines. 100

15 Malhada Mining Co., Malhada.—Copper ore from Malhada mine. 100

16 Monges Iron Co. (limited), Lisbon.—Iron ore from Serra des Monges. 100

17 Moraes, José Gonçalves, Arronches.—Iron, manganese, and argentiferous lead ore. 100

18 Mason & Barry, Mertola.—Copper ores from San Domingo. 100

19 Oliveira, Joao Correia, Senhora de Castello.—Tin ore. 100

20 Oliveira, Bento Rodrigues de, San Pedro du Cova.—Anthracite, sulphuret of antimony, and galena. 100

21 Portuguese Copper Mining Co., Evora.—Specimens of ores from Basalho mine. 100

22 Portuguese Mining Co., Covellos.—Tin ore. 100

23 Perseverança Co., Oporto.—Antimony ore from Valle d'Ache, and tin ore from Logar d'Aborin. 100

24 Sequeira, Thomas, & Carneiro d'Andrade, Eduardo, Beja.—Copper ore from Juliana mine. 100

25 Schreck, Maximiliano, & Kemp, Mauricio, Oporto.—Antimony ore from Campo Redondo; manganese from Pinhal da Cunha. 100

26 Serrinha Tin Co. (limited), Oporto.—Tin ore from Serrinho da Casca. 100

27 Telhadella Mining Co., Telhadella.—Copper ores. 100

28 Tras-os-Montes Mining Co., Bragança.—Tin ore. 100

29 Transtagana Mining Co., Lisbon.—Copper ores. 100

30 Velho, Agostino Francisco, & others, Villa Real.—Lead ore. 100

31 Freixo, Viscount de, Oporto.—Argentiferous lead ore. 100

32 Zarzechi, Ladislau, Oporto.—Lead ore from the Pego mine. 100

33 Department of Mines, Lisbon.
a Manganese, tin, and antimony ores; iron pyrites. 100
b Marbles. 102

34 Oliveira, Bento Rodrigues d', S. Pedro de Cova.
a Lead and antimony ore. 100
b Mineral coal. 101

35 Industrial Union Co., Povoa de Pedoride.—Coal. 101

35*a* Cabral, Frederico A. de V. P., Oporto.—Coal from Monte das Cavadinhos. 101

36 Direction of the Public Works of Braga.—Building stones, etc. 102

37 Barreto, Antonio Tavares, Santarem.—Limestone from the Granja quarry. 102

38 Carvalho, Venceslau M. de, Condeixa a Velha.—Samples of marbles from Condeixa quarries. 102

39 Brites, Augusto Pereira, Torres Novas.—Building stone. 102

40 Direction of the Public Works of Vianna do Castello.—Building materials. 102

41 Vallongo Slate & Marble Quarries Co., Oporto.—Slabs and roofing slate. 102

43 Governor of the Civil District of Ponte Delgada.—Building materials. 102

44 Rato, Antonio Moreira, Lisbon.—Marbles. 102

45 Santos, Joaquin Antunes dos, Lisbon.—Samples of marble. 102

46 Salles, Joaquim José de, Lisbon.—Marbles. 102

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Stone, Minerals, Metallurgical Products, Engineering.

47 Salles, Germano José de, Lisbon.—Marbles. 102

48 Bessoni, Viscount de, Cintra.—Marbles. 102

49 Ponta Delgada, Committee of.—Building materials. 102

50 Direction of the Public Works of Vizeu, Vizeu.—Building materials. 102

51 Direction of the Public Works of Oporto, Oporto.—Building materials. 102

52 Direction of the Public Works of Aveiro, Aveiro.—Building materials. 102

53 Direction of the Public Works of the Mondego river & Figueira bar, Coimbra.—Building materials. 102

54 Direction of the Public Works of Coimbra, Coimbra.—Building materials of the district. 102

55 Direction of the Public Works of Leiria, Leiria.—Building materials of the district. 102

56 Extremoz Marble Quarrying Co., Extremoz.—Marbles. 102

57 Rasca Cement Exploring Company, Lisbon.—Hydraulic cement. 103

58 Parochial Board of Sabacheira, Sabacheira.—Limestone. 103

59 Governor of the Civil District of Portalegre.—Phosphate of lime from Marvao. 103

60 Lisbon Dyeing & Cotton Printing Company, Lisbon.—Lime. 103

61 Ponta Delgada, Committee of.
a Pozzolana and pumice. 103
b Mineral waters of San Miguel, and analysis. 107

62 Neuville, Louis, Lisbon.—Kaolin. 104

63 Coelho, Francisco, Torres Novas.—Clay. 104

64 Manilha, Francisco dos Santos Lopes, Valongo.—Whetstones. 106

65 Vidago Mineral Waters Company. Lisbon.—Mineral waters. 10

66 Pedras Salgadas Mineral Waters Company, Oporto.—Mineral waters. 107

67 Janson, J. H., & Co., Lisbon.—Soda water. 107

69 Freitas, Albino, José, Ega.—Mineral waters. 107

70 Fialho & Bro., Lisbon.—Mineral waters. 107

71 Committee of Administration, Sulphur baths of Castello de Vide.—Sulphurous mineral waters. 107

Metallurgical Products.

73 Mason & Barry, Saó Domingos.—Gold bar and silver bar. 110

74 Ferreira & Souza, Oporto.—Gold leaf. 110

75 Cardozo, José Pereira, jr., Oporto.
a Gold and silver leaf. 110
b Aluminium, platina, and tin leaf. 113

76 Beirollas, Manuel Antonio, Gollega.—Horse shoes. 111

77 Department of Mines, Lisbon.—Iron from Moncorvo. 111

78 Perseverança Company, Oporto.—Tin ingot. 113

79 Tras-os-Montes Mining Company, Braganza.—Tin ingot. 113

Mining Engineering.

80 Department of Mines, Lisbon.—Plans of mines. 121

81 Mason & Barry, Mertola.—Plans of mines; model of a Roman wheel. 121

82 Silva, S. A. P. da, & F. A. Marques de Moura, Aveiro.—Plan of a salt pit, with description of same. 121

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

TURKEY.

(*South of Nave, Columns 14 to 17.*)

Minerals, Ores, Stone.

Minerals, Ores, Stone, Mining Products.

1 Wilkinson, Rizzo, & Co., Koumarlar, Dardanelles.—Sulphur ore, sulphurous copper. 100

2 Tapa, Daniel, Cian, Dardanelles.—Lead ore. 100

3 Sarral, Mouradite, Trebizond.—Argentiferous galena. 100

4 Sarral, Lokhia, Trebizond.—Iron pyrites. 100

5 Schirin Agha, Tirepola, Trebizond.—Copper pyrites. 100

6 Soleiman, Gueugine, Trebizond.—Galena. 100

7 Omer, Oglou Osman, Lokhia, Trebizond.—Galena. 100

8 Omer, Effendi, Ordou, Trebizond.—Argentiferous galena. 100

9 Nimetoulah, Trebelau, Trebizond.—Copper ore. 100

10 Nimetoulah, Kurelli, Trebizond.—Copper pyrites. 100

11 Pappazaki, Nicola, Sfakia, Crète.—Lignite. 100

12 Nimetoulah, Mouradite, Trebizond.—Argentiferous galena. 100

13 Moustapha, Effendi, Cherkech, Castamouni.—Chalk. 100

14 Gonssan, Government of, Adana.—Iron pyrites. 100

15 Multesim Oulah, Tireboli, Trebizond.—Ferruginous sediment. 100

16 Multesim, Abdoulah, Tirebole, Trebizond.—Argentiferous galena, copper pyrites. 100

17 Mandené, Diarbekir.—Silver ore. 100

18 Multesim, Tireboli, Trebizond.—Cupreous pyrites. 100

19 Ligory, Effendi, Stankeny, Dardanelles.
a Manganese, iron ore, and sulphur ore. 100
b Emery. 106

20 Kara-Hissar, Government of, Sivas.—Argentiferous galena, aluminous earth. 100

21 Ali, Hadji Diarbekir.—Brimstone of the desert. 100

22 Moustapha, Hadji, Nich, Danube.—Iron stone. 100

23 Adrianople, Government of.
a Powdered mica. 100
b Coal. 101
c Sand for mouldings. 104

24 Debré, Government of, Monastir.—Sulphate of chalk. 100

25 Aydin, Government of.—Argentiferous galena, lignite, iron ore. 100

26 Adana, Government of.—Sulphate of chalk and galena. 100

27 Gumuch Hané, Government of, Trebizond.—Argentiferous and cupreous galena. 100

28 Ichkodra, Government of, Monastir.—Sulphur ore. 100

29 Ichkloura, Government of, Monastir.—Brimstone, arsenical ore, and sulphate of copper. 100

30 Havret, Government of, Salonica.—Argentiferous galena. 100

31 Topouz, Oglou, Imbros, Dardanelles.
a Lead ore. 100
b Coal. 101

32 Koniah, Government of.—Brimstone. 100

33 Micheré, Government of, Yanina.—Lignite. 100

34 Medina, Government of, Hidjaz.—Rock crystals. 100

35 Maghlé, Government of, Aydin.—Argentiferous galena, iron and chrome ores. 100

36 Militinous, Government of, Samos.
a Talc 100
b Yellow earth, argil. 104

37 Lapsaki, Government of, Dardanelles.—Brimstone. 100

38 Karssendi, Government of, Adana.
a Copper and silver ore, lignite and galena. 100
b Grit sandstone. 102

39 Tdomane, Government of, Yanina.—Galena. 100

40 Trebizond, Government of.—Galena. 100

41 Uskup, Government of, Monastir.—Aluminous earth. 100

42 Samos, Government of.
a Galena. 100
b White and colored marble. 102
c Argil. 104
d Emery. 106

43 Suleimaneeyah, Government of, Bagdad.
a Melted brimstone, cut rock crystal. 100
b Argil. 104

44 Smyrna, Government of, Aydin.—
a Lignite, argentiferous galena, iron ore, manganese. 100
b Emery, grindstones. 106

45 Syros, Government of, Salonica.—Lignite. 100

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Minerals, Ores, Stone, Metallurgical Products.

46 Soukė, Government of, Aydin.
a Iron ore. 100
b Red sandstone. 102
c Tripoli. 104
d Emery. 106

47 Saroukhan, Government of, Aydin.
a Chrome ore. 100
b Mineral water. 107

48 Samakon Factory, Sophia, Danube.—Iron ore. 100

49 Ergain, Diarbekir.—Copper ore. 100

50 Donel Aghop, Esinė, Dardanelles.—Manganese. 100

51 Dardalah, Mouradile, Trebizond.—Copper pyrites. 100

52 Pappazaki, Dimitri, Sfakia, Crète.—Argillous talc. 100

53 Abdi Bey, Myteline, Dardanelles.—Chrome. 100

54 Abdoullah Pey, Myteline, Dardanelles.
a Antimony. 100
b Emery. 106

55 Azit Anelė, Olevek, Trebizond.—Manganese. 100

56 Ulmusrati, Ahmed, Tripoli, Tripoli.—Crude brimstone. 100

57 Administration of the Mines, Constantinople.—Collection of ores. 100

58 Mehemed Agha, Aleppo.—Coal. 101

59 Bridore, Government of, Bosnia.—Lignite. 101

60 Djezirė, Diarbekir.—Coal. 101

61 Kratova, Government of, Monastir.—Coal. 101

62 Mosul, Government of, Bagdad.—Coal. 101

63 Nich, Government of, Danube.—Coal. 101

64 Panaloko, Government of, Bosnia.—Coal. 101

65 Ychtip Government of, Monastir.—Coal. 101

66 Ereili, Castamouni, Castamouni.—Lignite. 101

67 Serkiz, Aleppo.—Red marble. 102

68 Razoula, Aleppo.—Yellow marble, calcareous stone. 102

69 Koyondja, Government of, Bosnia.—Marble. 102

70 Nenedès, Government of, Samos.—White marble. 102

71 Nicolaki, Jovan Oglou, Dardanelles, Dardanelles.—Cement. 103

72 Sfakia, Government of, Crète.—Crude lime. 103

73 Naoum Cassam, Aleppo.—Argil. 104

74 Baktiar Bez., Panaloko, Bosnia.—Pipe-clay. 104

75 Ali Effendi, Angora.—Argil. 104

76 Myteline, Government of, Dardanelles.—Graphite. 105

77 Osman Bin Mohamed, Bridore, Bosnia.—Emery. 106

78 Ali, Hadji, Tekė, Koniah.—Emery. 106

79 Yildis-Ki, Government of, Sivas.
a Emery. 106
b Mineral water. 107

80 Bendissa, Government of, Aleppo.—Hot mineral water. 107

81 Gesrichvouz, Government of, Aleppo.—Hot mineral water. 107

82 Ersindjan, Government of, Erzeroum.—Mineral water. 107

83 Marach, Government of, Aleppo.—Mineral waters. 107

84 Rikanič, Government of, Aleppo.—Mineral water. 107

86 Zeitoun, Government of, Aleppo.—Hot mineral water. 107

87 Volonia, Government of, Yanina.—Mineral water. 107

88 Central Drug Store, della Sudda's, Inigueul, Ichitli.—Mineral water. 107

89 Bin Cachi Mehemed, Aleppo.—Mineral water. 107

Metallurgical Products.

90 Giovan, Siros, Salonica.—Gold-dust. 110

91 Mehemeda, Marach, Aleppo.—Horse shoes and nails. 111

92 Moustapha, Hadji, Aleppo.—Iron. 111

93 Ak-Hissar, Government of, Bosnia.—Iron. 111

94 Kerschove, Government of, Bosnia.—Iron. 111

95 Varach, Government of, Bosnia.—Iron. 111

96 Karssendi, Government of, Adana.—Crude iron. 111

97 Kara-Hissar, Government of, Sivas.
a Iron. 111
b Lead slag. 113

98 Samakon Factory, Sophia, Danube.—Iron. 111

99 Abass Agha, Kuspuk, Monastir.—Horse shoes. 111

100 Ligory Effendi, Stankeny, Dardanelles.—Copper. 112

101 Samos, Government of.—Zinc. 113

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

RUSSIA.

(*South of Nave, Columns 19 to 23.*)

Minerals, Ores, Stone, Metallurgical Products.

Minerals, Ores, Stones, Mining Products.

1 **Yoogoff Iron Works, Government** of Perm.—Copper ores. 100

2 **Pootiloff Iron Works Company, St.** Petersburg.—Iron ores. 100

3 **Administration of the Goroblagodati** Mining District, Government of Perm.—Magnetic and other iron ores. 100

4 **Administration of the Mining Districts** in Western Poland.
a Iron ore, calamine, and lead blende. 100
b Coal. 101
c Refractory clay. 104

5 **Administration of the Clonetz Mining** District.—Lake iron ore. 100

6 **Rogosloosky Crown Copper Works,** Government of Perm.—Copper ores. 100

7 **Demidoff, Paul, Prince of San Donato,** Nigni Tagil, Ural Mountains, Government of Perm.—Iron and copper ores. 100

8 **Gessrick & Woerfel, St. Petersburg.**—Siberian minerals and hard stones. 100

9 **Kniaze Michailoffi Crown Steel** Works, Government of Orenburg.—Magnetic iron ore. 100

10 **Mining School, St. Petersburg.**—Minerals and paleontological collection. 100

11 **Bashkoff, Basil, Bogoyavlensk, &** Verkhotoorgi, Government of Cofa.—Copper ores. 100

12 **Russian Rail Manufacturing Company,** Government of Riazan, District of Tronsk.—Iron ore. 100

13 **Saltkinsky Crown Iron Works, Government** of Orenburg.—Brown and sparry iron ores. 100

14 **Sidoroff, Michael, St. Petersburg.**
a Iron ore. (Northern limits of Russia.) 100
b Siberian graphite from the district of Toorookhansk. 105

15 **Yakovleff, John, Alexandria, Government** of Kherson.
a Iron ore. 100
b Graphite. 105

16 **Russian Navigation & Trade Company,** Odessa.—Specimens of anthracite coal. 101

18 **Majervsky, T., & Stochelsky. M,** Government of Pietrkoff, district of Bendzin.—Coal. 101

19 **Sidoroff, Michael, St. Petersburg.**—Bituminous coal, from underground fire burning since 1700. 101

20 **Zievers, B. Wesenberg, Government** of Est-land.—Portland cement. 103

21 **Schmidt, C., Riga.—Cement.** 103

22 **Sytenko, John, Moscow.—Limestone** and plaster. 103

23 **Lanin, Nicolas, Moscow.—Mineral** water. 107

Metallurgical Products.

27 **Mining Department, St. Petersburg.**—Native platinum, osmiridium (purified), and platinum. 110

28 **Miasky Government Gold Mines,** Government of Orenburg.—Gold-bearing sands; illustration of gold washing machines. 110

29 **Votkinsk Crown Iron Works, Government** of Perm.—Iron (in bars), and cast steel. 111

30 **Pootiloff Iron Works Company, St.** Petersburg.—Cast and wrought iron, steel, twisted rail. 111

31 **Gun Foundry, Perm.—Cast and** wrought iron; steel sections of cast steel guns. 111

32 **Kama Armor Plate Works, Govern**ament of Perm.—Armor plate 111

33 **Administration of the Goroblagodati** Mining District, Government of Perm.—Cast iron projectile. 111

34 **Administration of the Olonetz Mining** Districts.—Cast and wrought iron; section of cast iron guns. 111

35 **Demidoff, Paul, Prince of San Donati,** Nigni Tagil, Ural Mountains, Government of Perm.
a Iron; pig bars, ingots, rails, sheets, slags, and flakes. 111
b Copper ingots, bars, sheets; illustrations of style of working. 112

36 **Russian Rail Manufacturing Company,** Government of Riazan, District of Trensk.—Cast iron and iron wire. 111

37 **Satkinisky Crown Iron Works, Gov**ernment of Orenburg.—Cast iron. 111

38 **Admiralty Tyora Works, near St.** Petersburg.—Boiler plates. 111

39 **Yoogoo Copper Works, Government** of Perm.—Copper (in bars and ingots), and products of working. 112

40 **Pashroff, Basil, Bogoiavlensk &** Vennihotoorji, Copper Works, Government of Oofa.—Copper ingots, bars, rolled wire, and spangles; illustrations of methods of working. 112

For classes of exhibits indicated by numbers at end of entries, see Classification, pp. 27–45.

Metallurgical Products, Mining Engineering.

42 Ragoslovsky, Crown Copper Works, Government of Perm.—Illustrations of productions of copper. 112

43 Rastergaeff, Gregory, St. Petersburg.—Tinned iron sheets. 114

Mining Engineering.

44 Administration of Mines in Finland. —Helsingfors' editions and reports on local mine engineering and geology. 120

45 Scientific Committee of the Mining Department, St. Petersburg.—Special editions and periodicals on mine engineering. 120

46 Demidoff, Paul, Prince of San Donati, Nigni Tagil, District of Ural Mountains, Government of Perm.—Maps, plans, and views of this mining district; illustrations of gold washing process. 120

47 Babin, Victor, & Lepooshinsky, Moscow.—Illustrations of boring process, artesian well, and apparatus. 120

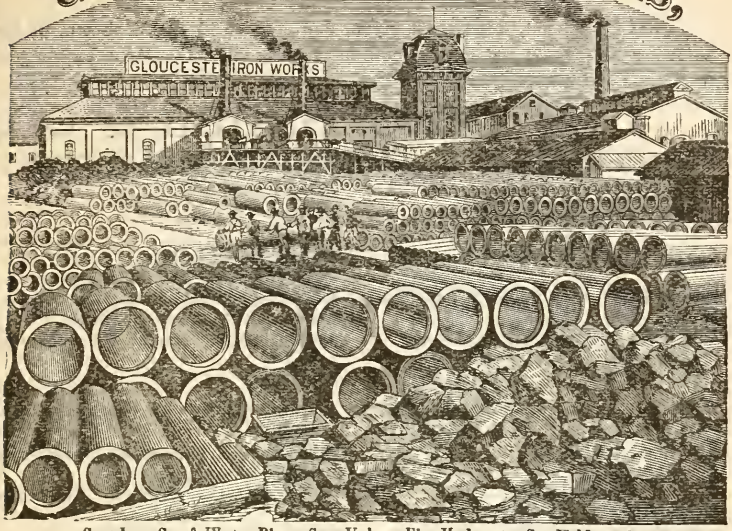
For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

David S. Brown, Pres't.
Benj. Chew, Treas.

Jas. P. Michellon, Sec'y.
Wm. Sexton, Sup't.

GLOUCESTER IRON WORKS,

GLOUCESTER CITY, NEW JERSEY.

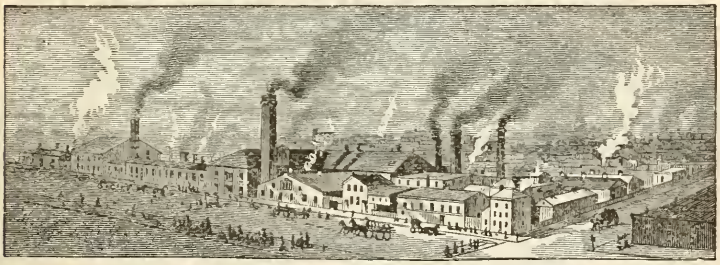


Cast Iron Gas & Water Pipes, Stop Valves, Fire Hydrants, Gas Holders, &c.

Office, Philadelphia. No. 6 North Seventh St.

PHILADELPHIA LEAD WORKS.

ESTABLISHED 1813.



JOHN T. LEWIS & BROS.,

MANUFACTURERS OF

WHITE LEAD, RED LEAD, LITHARGE,

ORANGE MINERAL, SUGAR OF LEAD, ACETIC ACID,

Linseed Oil, Painters' Colors.

BUSINESS OFFICE, 231 SOUTH FRONT STREET,

PHILADELPHIA.

FIRE ARMS, Etc.

PRICES quoted, description given, and some SAMPLES shown, of the following Manufacturers' Goods, now on exhibition in the Main Building of the Centennial Exposition.

JOS. C. GRUBB & CO.,

Manufacturers' Agents. **712 Market St., PHILADELPHIA.**

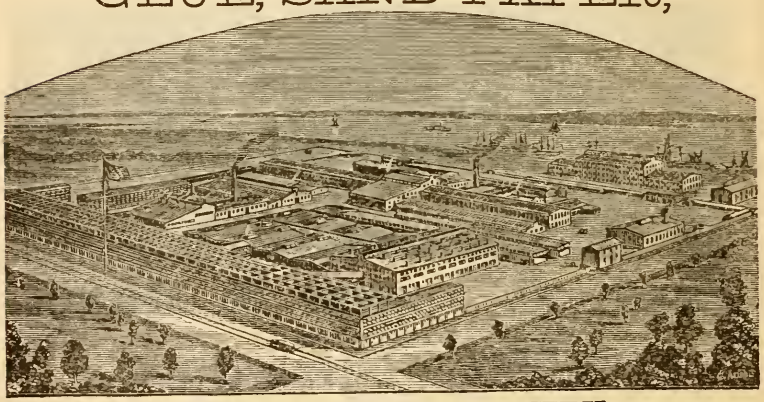
J. RUPERTUS, Empire Revolvers.
" **C. SHARPS,** Pat. 4 Shot Repeaters.
F. WESSON, Breech-Loading Rifles.
" " Target Pistols.
WINCHESTER, Reptg. Rifles and Cartridges.
SHARPS, Target and Sporting Rifles.
FOREHAND & WADSWORTH, Revolvers.
COLT'S Patent Firearm Mfg. Co. "
SMITH & WESON, Revolvers.
WHITNEY, Rifles and "
REMINGTON, " " and Breech-loading Double Guns.
AMERICAN FLASK AND CAP Company.
AMERICAN PERCUSSION CAP Association.
WM. G. RAWBONE, Patent Creasers.
PARKER BROS., American Breechloading Guns.

JAMES PURDEY, London, Breechload'g Guns.
JOHN RIGBY & CO., " " "
E. M. REILLY & CO., " " "
J. LANG & SONS, " " "
ALBERT LANCASTER " " "
CHAS. LANCASTER, " " "
ALEX. HENRY, Edinburgh, " "
Harpoon and Bomb Lance Guns.
W. & C. SCOTT & SON, Birmingham, " "
P. WEBLEY & SON, Birmingham, Breechloading Guns.
W. W. GREENER, Birmingham, Breechloading Guns.
ELEY BROS., London, Shells, Wads, Caps, etc.
PIGOU, WILKS & LAURENCE, London, Gunpowder.
SELLIER & BELLOT, Percussion Caps.

BAEDER, ADAMSON & CO.,

MANUFACTURERS OF

GLUE, SAND PAPER,



GROUND FLINT AND EMERY,

EMERY PAPER AND EMERY CLOTH,

CURLED HAIR AND STUFFING HAIR,

MOSS, COW-HIDE WHIPS, FELT HAIR, AND FELTING.

FACTORIES:
PHILADELPHIA, Pa.
NEWARK, N. J.
WOBURN, Mass.

STORES:
Philadelphia, 730 Market Street.
New York, 67 Beekman Street.
Boston, 143 Milk Street.
Chicago, 182 Lake Street.

DEPT. II.—MANUFACTURES.

UNITED STATES.

Chemicals, Pharmaceutical Preparations.

Chemical Manufactures.

1 **Gantz, Geo. F., & Co., New York, N. Y.**—Baking powder. T 47. 200

1*a* **Feuchtwanger, L., & Co., New York, N. Y.**—Polytechnic chemicals. T 47. 200

2 **Royal Baking Powder Co., New York, N. Y.**—T 47.
a Baking powder. 200
b Flavoring extracts, celery salt 203

2*a* **Ohio River Salt Co., Pomeroy, O.**—Salt. V 63. 200

3 **Hance Bros. & White, Philadelphia, Pa.**—Solid and fluid extracts, sugar-coated pills. P 43. 200

3*a* **Procter, Wm., jr., & Co., Philadelphia, Pa.**—Saccharated pepsin. P 48. 200

4 **Fries, Alex., & Bros., New York, N. Y.**—P 48.
a Chemicals, coloring, etc. 200
b Artificial fruit and liquor essences, flavors for cigars. 203

5 **Gordon, W. J. M., Cincinnati, O.**—Chemicals, glycerine, sugar-coated pills, podophyllin, hydrastine. P 47. 200

6 **Rosengarten & Sons, Philadelphia, Pa.**—Sulphates of quinine and morphine, and other chemicals for use in medicine and the arts. P 41. 200

7 **Warner, Wm. R., & Co., Philadelphia, Pa.**—Sugar-coated pills and pharmaceutical preparations. P 43. 200

7*a* **Hirsh, Joseph M., Chicago, Ill.**—Chemicals, albumen, dried blood, alizarine, carbolic acid, coal tar products, etc. P 47. 200

8 **Campbell, Sam'l, Philadelphia, Pa.**—P 47.
a Medicinal fluid extracts. 200
b Perfumery and toilet articles. 203

8*a* **Williamson, D. D., New York, N. Y.**—Bisulphite of lime, finings, beer coloring, cleansing powders, tannate of soda, etc. P 49. 200

9 **Kreitzer, M. C., Philadelphia, Pa.**—Medicines, perfumery, etc., in a marble show case. The marble is from a new quarry just opening in Lebanon Valley, Pa. T 43. 200

9*a* **Scheffer, E., Louisville, Ky.**—Preparations of pepsin. P 48. 200

10 **Keasbey & Mattison, Philadelphia, Pa.**—Granular effervescent preparations, gelatine-coated pills, pharmaceutical specialties. P 43. 200

10*a* **Hance, R. A., Philadelphia, Pa.**—Fluid extracts. T 43. 200

11 **Twining & Schiedt, Philadelphia, Pa.**—Fluid and solid extracts, sugar-coated pills, elixirs, concentrated preparations, chemicals, syrups, tinctures, powdered drugs. T 41. 200

11*a* **Shoemaker, Robert, & Co., Philadelphia, Pa.**—Fluid extracts; ground, crushed, and powdered drugs and spices. P 43. 200

12 **Powers & Weightman, Philadelphia, Pa.**—Sulphate of quinia, salts of cinchona barks, sulphate of morphia; chemicals, medicinal, photographic, and for the arts. P 41. 200

12*a* **Morrison, Arthur B., Portland, Me.**—Gold and silver solution for electrotyping without a battery; restorative for cleaning jewelry. T 57. 200

13 **Harrison Brothers & Co., Philadelphia, Pa.**—P 41.
a Chemicals, alum, sugars of lead, acetates of lime; sulphuric, nitric, muriatic, acetic, and pyroligneous acids. 200
b White lead, dry and in oil; colors for painters, lithographers, and calico printing. 202

13*a* **Central Ohio Salt Co., Columbus, O.**—Salt from Athens county. V 63. 200

14 **Doerr & Sloan, Philadelphia, Pa.**—Lacto-phosphate of lime, iron, and cod-liver oil. T 40. 200

15 **Mellor & Rittenhouse, Philadelphia, Pa.**—Licorice and pharmaceutical extracts; glycerine composition for printers' rollers. P 41. 200

16 **Stearns, Frederick, Detroit, Mich.**—Pharmaceutical products peculiar to United States, representing his catalogue, number 75, 132 pages, 168 classes, and 10,000 items. P 41. 200

17 **Dunton, Jacob, & Co., Philadelphia, Pa.**—Pills. Compressed lenticular non-excipient porous pills, made from dried powders, by pressure, without admixture; are as soluble after ten years as when first made, and much more readily dissolved than any freshly-made excipient pill. Process and machinery patented. T 40. 200

18 **Simes, Wm. F., & Son, Philadelphia, Pa.**—Camphor, sublimed and compressed into convenient blocks of 1 ounce and 4 ounces; is very durable, strong in natural oil, and perfectly pure. Patented. P 41. 200

19 **Tacony Chemical Works, Philadelphia, Pa.**—Acids, chemical salts, etc. T 42. 200

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Chemicals, Pharmaceutical Preparations.

20 **Dreyfus, J. G., & Co., New York, N. Y.**—Cream of tartar. T 43. 200

21 **Mockridge, E., & Co., Philadelphia, Pa.**—Azumea. T 47. 200

22 **Bullock & Crenshaw, Philadelphia, Pa.**—Sugar-coated pills; United States Pharmacopœia and recipes of eminent physicians, accurately compounded, readily soluble, and strictly reliable in every particular. P 41. 200

23 **Pennsylvania Salt Manufacturing Co., Philadelphia, Pa.**—Kryolite, alum, lye, sodas, acids, chlo. calcium, and alumina. T 42. 200

24 **Savage, Keyser, & Stovell, Philadelphia, Pa.**—Acids and salts. T 44. 200

25 **Philadelphia Quartz Co., 9 North** Front street, Philadelphia, Pa.—Silicate of soda, in its various forms, specially adapted to the different uses. T 45. 200

26 **Coyne, Geo. S., Philadelphia, Pa.**—Manufacturer and importer of dyewood liquor extracts, acids, dyestuffs, and chemicals generally. (Stores, 104 and 127 Church street, Philadelphia, Pa.; Chester Chemical Works, Delaware county, Pa.) T 44.
a Acids and chemicals. 200
b Dyestuffs. 202

28 **Condit, Hauson, & Co., Newark, N. J.**—Metallic salts, electro-plating materials; hatters', dyers', jewelers', and manufacturers' chemicals. P 49. 200

29 **Baker, H. J., & Bro., New York, N. Y.**—Refined saltpetre, borax and camphor; epsom salts, castor oil. T 49. 200

30 **Lewis, John T., & Bros., Philadelphia, Pa.**—T 42.
a Acids. 200
b White and red lead; litharge, orange mineral; paints, colors, and oils. 200

31 **Silliman Chemical Works, Philadelphia, Pa.**—Chemical products, from tar and fine chemicals, known as Fresenius's tests. P 43. 200

32 **Wyeth, John, & Bro., Philadelphia, Pa.**—Pharmaceutical preparations, drugs, and compressed pills. P 41. 200

33 **Waterloo Yeast Co., New York, N. Y.**—Dry hop yeast cakes. T 47. 200

34 **McKesson & Robbins, 91 Fulton** street, New York, N. Y.—Gelatine-coated pills, aromatic elixirs, medicinal syrups; fluid and solid extracts, perfume extracts, essential oils, indigenous crude drugs. P 43. 200

35 **Benjamin, E. B., New York, N. Y.**—Pure chemicals. N 57. 200

36 **Kurlbaum & Co., Philadelphia, Pa.**—Refined camphor and chemical preparations. P 49. 200

38 **Libe, John C., Philadelphia, Pa.**—Baking yeast powder. T 47. 200

39 **McIlvaine Brothers, Philadelphia, Pa.**—Ground and powdered drugs, paints, etc. P 43. 200

40 **Smith, Hanway, & Co., Baltimore, Md.**—Baking powder. T 47. 200

42 **Chessman, W. H., Boston, Mass.**—Pure lime from Missisquoi Lime Co., Highgate Springs, Vt. T 50. 200

43 **Brown, Frederick, Philadelphia, Pa.**—Essence of Jamaica ginger, and other pharmaceutical preparations. P 41. 200

44 **Hagner Drug Milling Co., Philadelphia, Pa.**—Powdering, grinding, flaking, crushing, and other mill work. T 51. 200

45 **Bower, Henry, Philadelphia, Pa.**—Glycerine, stearic and oleic acids; prussiate of potash, sulphate of ammonia. T 43. 200

46 **Browning & Brothers, Philadelphia, Pa.**—T 44.
a Acetic acid, acetate of lime, lead, alumina and iron, sulph. copper. 200
b Naphtha. 201
c Dyewoods. 202

48 **Leidy, Francis D., Philadelphia, Pa.**—Soap powder, washing crystals. T 50. 200

50 **Bean, Lewis U., Philadelphia, Pa.**—P 49.
a Pharmaceutical preparations, drugs, etc. 200
b Paints—dry and in oil. 202

51 **Pfizer, Chas., & Co., New York, N. Y.**—Pharmaceutical and chemical products; cream tartar, tartaric acid, refined borax, and camphor. P 49. 200

52 **Preston & Merrill, Boston, Mass.**—P 48.
a Yeast powder. 200
b Sugar of lemons, flavoring extracts. 203

53 **Meyer, Jas., jr., & Co., New York, N. Y.**—Girondin disinfectant. Inodorous and colorless; does not injure any object or material it may be applied to; destroys and neutralizes almost instantly the most offensive odors, vapors, or gases; arrests putrefaction, prevents contagion, and is infallible as an agent for embalming. P 49. 200

55 **Billings, Clapp, & Co., Boston, Mass.**—Chemicals. Manufacturers of acids, alkalies, ethers, chloroforms, podophyllin, preparations of gold, silver, tin, zinc, lead, iron, bismuth, mercury, and trade chemicals. Price lists and special quotations sent on application. T 45. 200

56 **Mackeown, Bower, Ellis, & Co., Philadelphia, Pa.**—Drugs and chemicals. T 43. 200

58 **Phillips & Jacobs, Philadelphia, Pa.**—Illustration of the recovery of gold and silver from wastes in the industrial arts. T 46. 200

59 **Dooley & Bro., New York, N. Y.**—Baking powder. T 49. 200

60 **White, Charles T., & Co., No. 54** Maiden Lane, New York.—Pharmaceutical chemicals, quinia, morphia, strychnia, and their salts; iodides, bromides, acids C. P., etc. Medals of merit for appearance and purity, Am. Institute, 1867–1870; Cincinnati, 1870; Cordova (Arg. Repub.), 1870; Vienna, 1873. P 43. 200

61 **United States Salicylic Acid Works,** New York, N. Y.—Salicylic acid and its preparations. P 47. 200

62 **Gray, Daniel H., New York, N. Y.**—Brimstone and flour of sulphur. T 42. 200

63 **Follett, O. S., New York, N. Y.**—White sugar of lead, chloroform, acetic acid, and vinegar. P 47. 200

64 **King, Wm., Son, & Co., Philadelphia, Pa.**—Crude and refined petroleums. T 41. 201

Oils, Soap, Candles.

64*a* Frazer Lubricator Co., Jersey City, N. J.—Axle grease. T 50. 201

65 Pease, F. S., Buffalo, N. Y.—Pease's "Premium Oils." Improved Oils for Railroads, Steamers, and all classes of Machinery and Burning. P. 41. 201

66 Baker, John C., & Co., Philadelphia, Pa.—Medicinal cod-liver oil, pure, and in combination with other agents. P 43. 201

66*a* Leonard & Ellis, New York, N. Y. —Cylinder oil. T 54. 201

67 Eavenson, Jones, & Sons, Philadelphia, Pa.—Laundry soaps. T 43. 201

68 Morgan's, Enoch, Sons, New York, N. Y.—Sapolio, for cleaning and polishing; hand sapolio, for toilet. T 48. 201

69 Cragin, I. L., & Co., Philadelphia, Pa.—Dobbins' electric soap and materials used in its manufacture. P 47. 201

70 Wrigley, Wm., & Co., Philadelphia, Pa.—Mineral scouring soap. T 44. 201

71 McKeone, Van Haagen, & Co., Philadelphia, Pa.—Soaps, oils, perfumery, soap stock, candles. T 39. 201

72 Conway, Wm., Philadelphia, Pa.—Laundry soaps. T 49. 201

73 Marx & Rawolle, New York, N. Y. —T 40.
a Glycerine. 201
b Lacquers and French varnishes, bleached and refined gum shellac, sealing wax. 202

74 Gest & Atkinson, Cincinnati, O.—Lard, tallow, grease; lubricating, burning, and paint oils; car candles. T 39. 201

75 Loper & Doughten, Philadelphia, Pa.—Naval stores. T 43. 201

76 Faller, Geo. J., Philadelphia, Pa.—Sewing machine oils. T 44. 201

7 Dreydoppel, Wm., Philadelphia, Pa.—Borax soap. T 50. 201

78 Elkins, Wm. L., Philadelphia, Pa. —Petroleum, lubricating oils, gasoline, and deodorized naphtha. T 49. 201

79 Page, Kidder, & Fletcher, New York, N. Y.—Coal tar products and their uses. T 42. 201

80 Aladdin Oil Co., Pittsburg, Pa.—Illuminating and lubricating oils, paraffine, etc. T 43. 201

81 Robinson Bros. & Co., Boston, Mass.—Toilet soaps, silver soap. P 47. 201

82 Williams, J. B., & Co., Glastonbury, Conn.—Soaps. Manufacturers of Genuine Yankee, Barber's Bar, Clipper, Pumice, Bath, Pocket Shaving, Verbena Cream, and other popular shaving and toilet soaps. P 47. 201

83 Brown, Robt. B., & Co., St. Louis, Mo.—Castor oil. T 50. 201

85 Marvin Brothers & Bartlett, Portsmouth, N. H.—Cod liver oil. T 47. 201

86 Kelley, Ezra, New Bedford, Mass.—Watchmakers', mechanics', and sewing machine oils. T 45. 201

87 Hartmann, Laist, & Co., Cincinnati, O.—Glycerine. T 50. 201

88 Crew, Moore, & Levick, Philadelphia, Pa.—Illuminating and lubricating oils. T 46. 201

89 Pratt, Charles & Co., New York, N. Y.—Petroleum and its products, and packages for same. Model of refinery and astral oil works. T 43. 201

91 Smith, Chas. K., & Co., Philadelphia, Pa.—Burning and lubricating petroleum oils, miners' and railroad oils. T 40. 201

92 Nye, Wm. F., New Bedford, Mass. —Sewing machine, watch, and clock oils. These oils are obtained from the head of the sperm whale, the black fish, and porpoise, and most carefully refined for the purposes mentioned, only during the severest cold of winter. T 49. 201

93 Houghton, E. F., & Co., Philadelphia, Pa.—Cosmoline, for medical purposes; cylinder and machinery oils, hydrocarbonated bone black. T 40. 201

94 Boyé, M. H., & Lewis, Geo. T., Philadelphia, Pa.—Cottonseed oil, manufactured and refined. T 50. 201

95 Harkness, N. W., Philadelphia, Pa.—Refined petroleum, naphtha, residuum; natural lubricating oils, Harkness' wells, W. Va.; filtering apparatus. T 43. 201

96 Eastman & Brooke, Philadelphia, Pa.—P 47.
a Soaps. 201
b Washing blue, Russian dressing, and French blacking. 202

97 Devoe Manufacturing Co., New York, N. Y.—Cans with Devoe's faucet nozzle-top, and samples of oil. T 40. 201

98 Day & Frick, Philadelphia, Pa.—Laundry soap; polishes for cleaning paint, metal, etc. T 46. 201

99 Dodd, A. W., & Co., Gloucester, Mass.—Cod-liver oil. P 47. 201

100 Warden & Oxnard, Pittsburg, Pa. —Refined petroleum. T 49. 201

101 Oleophine Oil Co., refinery & works, Greenpoint, L. I.; offices, 320 and 322 Broadway, New York, N. Y., and 84 Beaver street, New York, N. Y.—Refined petroleum illuminating oils. Refiners of petroleum; proprietors of the celebrated Oleophine illuminating oils, and manufacturers of the Company's superior patented can. Oils delivered, in barrels and cans, for export and domestic use. T 44. 201

102 Munger, John W., Portland, Me.—Detergent compound. P 49. 201

103 Eavenson, J., & Sons, Philadelphia, Pa.—Soaps and candles. T 43. 201

104 Jewett, John, & Sons, New York, N. Y.—P 47.
a Linseed oil. 201
b White lead. 202

105 Rush & Co., Philadelphia, Pa.—Oils. T 41. 201

106 West, C., & Sons, Baltimore, Md. —Refined petroleum oil. T 41. 201

107 Miller, William P., & Co., New York, N. Y.—Bodeker's lubricants. T 49. 201

108 Galena Oil Works (limited), Franklin, Pa.—Lubricating oil. P 46. 201

109 Bassett, George A., Washington City, D. C.—Liquid laundry gloss. T 71. 201

110 Todd, A. M., Nottawa, Mich.—Natural oil of peppermint. P 47. 201

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Oils, Paints, Pigments.

111 Cook, Caleb, Provincetown, Mass. —Watch and clock oil. T 50. 201

112 Dixon Crucible Co., Jersey City, N. J.—Graphite paint. P 72. 202

112*a* Williston, A. L., Northampton, Mass.—Indelible ink and marking pens. T 46. 202

113 Hover, J. E., & Co., Philadelphia, Pa.—Chemical writing fluid; black ink, carmine, violet, and copying inks; mucilage. T 47. 202

113*a* Prunier, Pierre, Philadelphia, Pa. —Indigo extract, indigo carmine, tannins, gallo-tannic acid, archil, greens, etc. P 47. 202

114 Wetherill & Bro., Philadelphia, Pa.—White and red lead, litharge, orange mineral. T 44. 202

115 Lucas, John, & Co., Philadelphia, Pa. — White lead, white zinc, colors, paints, varnishes, Swiss and imperial French greens, etc. T 44. 202

117 Bihn & Co., Bridesburg, Philadelphia, Pa.—Lampblack. Established 1844. Manufacturers of all grades of lampblack for painters, curriers, printing ink, oil-cloth, rubber, and wall paper manufacturers. (Put up in handsome pasteboard boxes, neatly labeled.) T 40. 202

117*a* Reisinger Manufacturing Co., Harrisburg, Pa.—Chemical writing fluid. P 68. 202

119 Kokosing Oil Co., Gambier, O.—Lampblack. V 63. 202

120 Felton, Rau, & Sibley, Philadelphia, Pa. — Coach, furniture, and Japan varnishes. T 40. 202

120*a* Rue, Mrs. S., Philadelphia, Pa.—Furniture polish. W 53. 202

121 Reynolds, C. T., & Co., New York, N. Y. (Established 1770).—Paints, dry and in oil, fine colors, chemically pure; superfine quick-drying colors for coach and car painting; ready mixed paints for house and villa painting; laundry blueing, in bags, ready for use; artists' materials, embracing prepared canvas for oil painting, Tyrian water-color tablets, drawing papers and materials; crayons, gilders' tools, brushes for art, painters' and decorators' brushes, grainers' special tools, painters' cutlery, wax-flower materials, etc. The whole line of goods exhibited were taken from their regular stock, made for practical use, and not display. P 42. 202

121*a* Brandeis, L., & Co., New York, N. Y.—Bronze powders; gold, silver, and metal leaf. P 59. 202

122 Keystone Paint Co., Muncy, Pa.—Filler for coach, car, and safe painting; paint for school-house blackboards. T 40. 202

123 Carter, Dinsmore, & Co., Boston, Mass.—Writing fluid, inks, and mucilage; Lombard's inks and mucilage. T 47. 202

124 Fromherz, Jos., Cincinnati, O.—Inks. T 47. 202

125 Heller & Merz, New York, N. Y.—Ultramarine. T 41. 202

126 Rosenberg, D., & Sons, New York, N. Y.—Varnishes and baking japans. Manufacturers of coach, railway, cabinet, agricultural implements, and miscellaneous varnishes; baking japans for all uses; bronzing and colored varnishes, of all colors, a specialty. T 44. 202

127 Ware, M. J., Philadelphia, Pa.—Ostrich feathers, dyed and scoured. P 47. 202

128 Lockwood, Brooks, & Co., Boston, Mass.—Writing inks and mucilage. P 47. 202

129 Pecora Paint Company, Philadelphia, Pa.—Paints, stains, fillers, and dryers. T 41. 202

130 Davids, Thad., & Co., New York, N. Y.—Writing inks and fluid, mucilage, sealing wax, notarial seals, wafers, etc. T 47. 202

132 Raynald, John, 214 George street, Philadelphia, Pa.—Black and colored writing inks, copying inks, mucilage, hair dye, indelible ink. Inventor of the "Jet Black Writing Ink," invented 1860; instantaneously black, and remains so for ages. Raynald's instantaneous black Japan ink, for architecture. Raynald's instantaneous black copying ink, giving three or four copies distinct and perfect; Raynald's purple and greenish fluids at first, afterwards turning very black; Raynald's indelible ink for marking linen, silk, and cotton, with a clean pen or stencil, will not spread—no preparation; fifteen different albumen colors for coloring maps and photographs, all first class. T 47. 202

133 Iron Clad Paint Co., Cleveland, O.—Paints manufactured from iron ore, as used in iron smelting furnaces. T 41. 202

134 Phillips, C. C., & Co., Philadelphia, Pa.—Varnish and japans. T 41. 202

135 Brooklyn White Lead Co., New York, N. Y.—White lead, red lead, litharge. T 41. 202

136 Martin, L., & Co., Philadelphia, Pa.—Lampblack. T 41. 202

137 Barker, Moore, & Mein, Philadelphia, Pa.—White lead. T 40. 202

138 Parsons, John, New York, N. Y.—Glove powder, Dixon's silver powder, carmine and violet inks, pocket mucilage. T 47. 202

139 Waggoner, Gifford, & Co., Chicago, Ill.—Mixed paints. T 59. 202

140 Thompson, Albert, Bridgewater, Conn.—American sienna paint. T 40. 202

141 Sharpless, John M., & Co., Philadelphia, Pa.—Solid and liquid extract logwood. T 46. 202

142 Polychroite Veneer Co., Philadelphia, Pa.—Wood fibre composition, for decorating wood and other surfaces. P 57. 202

143 Mathers', Geo., Sons, New York, N. Y.—Type and lithographic printing inks. T 47. 202

144 Meyers, Simon S., Philadelphia, Pa.—Stove polish, liquid blueing, in ejecting bottles. T 47. 202

145 Valentine & Co., New York, N. Y. —Varnishes, etc., for fine coach and car work. T 43. 202

146 Milliken, Eugene, Boston, Mass.—Electrocon liquid polish. T 56. 202

147 Masury, J. W., & Son, New York, N. Y.—Grained doors, showing graining colors; superfine colors for coach, carriage, and car painting. T 41. 202

For location of objects, indicated by letter and figure, see Key to Notation, p. 25; ground plan, p. 26.

Pigments, Essences, Perfumery.

148 **Moss, Geo. A., New York, N. Y.**—Liquid blueing, powder blue, shoe blacking, ladies' shoe dressing, writing inks, etc. T 47. 202

149 **Adams White Lead Co., Baltimore, Md.**—White lead and products, a new process securing excellence of body, color, softness, uniformity, and durability. T 40. 202

150 **Smith, Edward, & Co., New York, N.Y.**—Coach and car varnishes, and japan dryers. T 41. 202

152 **Moser, Chas., & Co., Cincinnati, O.**—Colors, dry and pulp; paints in oil, coach colors, artists' colors. T 41. 202

152*a* **Jarboe, J. W., New York, N. Y.**—Ship's model and iron slab coated with enamel paint composition. T 54. 202

153 **Wright, J. K., & Co., Philadelphia, Pa.**—Printers' and lithographers' inks and varnishes. T 47. 202

154 **Continental Manufacturing Co., Philadelphia, Pa.**—Inks, writing fluids, mucilage, artists' colors. T 47. 202

155 **McCloskey, Bro., & Co., Philadelphia, Pa.**—Paints and colors, ground in oil, dry, and in pulp. T 40. 202

155*a* **Robinson & Pratt, Philadelphia, Pa.**—Printing and lithographic inks and varnishes. T 51. 202

156 **Erwin, H., & Co., Bethlehem, Pa.**—Mineral paint from Lehigh valley. T 40. 202

157 **Prince's Metallic Paint Co., Parryville, Pa.**—Metallic paint and foundry facings. T 50. 202

158 **Johnson, Chas. Eneu, & Co., Philadelphia, Pa.**—Typographic and lithographic black and colored printing inks, varnishes, etc. T 47. 202

159 **State of Oregon (by A. J. Dufur).**—Paints and oils. V 56. 202

160 **Maynard & Noyes, Boston, Mass.**—Writing ink. T 47. 202

161 **Estes, E. B., & Son, New York, N. Y.**—Sign painters' smalts. T 45. 202

162 **Rowland, Joseph S. C., Philadelphia, Pa.**—Indelible, canceling, and copying ink, and writing fluid. T 47. 202

163 **American Bronze Powder Manufactory, Brooklyn, N. Y.**—Bronze powders. N 50. 202

164 **Francis & Loutrel, New York, N. Y.**—P 74.
a Copyable printing inks. (Patent, April, 1872.) Use any "copying press." 202
b Composition for inking rollers. Does not harden, shrink, or crack; good for all time and climate. 543

165 **Foering, Geo. W., Locust Valley, Lehigh county, Pa.**—"Saucon sienna." Geologically, and otherwise, a peculiar formation, rich in alumina and peroxide of iron, exhibiting the durability of the best ochres. T 50. 202

166 **Peirce, I. Newton, Philadelphia, Pa.**—Stone surface enamel colors, and samples. T 70. 202

167 **Smith, Marshall L., Kimberton, Pa.**—Silex mineral paint. T 70. 202

168 **Marble, Jerome, & Co., Worcester, Mass.**—Patent indigo blue dye. A pure indigo color produced in any shade, perfectly fast, saving in time and expense, stands all indigo tests; process learned in half a day. T 70. 202

169 **Zinsser, Wm., & Co., New York, N. Y.**—Bleached and refined shellac, French alcohol copal varnishes, sealing wax. Shellacs are in quality same as unbleached; refined, give clear, transparent solutions; varnishes, quick drying, hard surface; lacquers of lasting colors. P 47. 202

170 **Thomson, J. S., New York, N. Y.**—Non-erasable and other inks. T 47. 202

171 **Shaw, Thomas Ogg, Providence, R. I.**—Paint made from mineral from Wyoming Territory. T 50. 202

172 **Johnson, Henry M., New York, N. Y.**—Kalsomine and fresco paints. P 47. 202

173 **Stimson & Babcock, Boston, Mass.**—P. 47.
a Coach and car varnishes. 202
b Gum copals. 203

174 **Tetlow, Henry, & Bro., Philadelphia, Pa.**—Perfumery, bouquet and toilet soaps, fine toilet preparations, blanc illusion, etc. P 48. 203

175 **Hotchkiss, H. G., Lyons, N. Y.**—American officinal essential oils. P 47. 203

176 **Upham, Sam'l C., Philadelphia, Pa.**—Extract, cologne, Florida water. Perfume fragrant and lasting. Two medals awarded. P 47. 203

177 **Wenck & Co., New York, N. Y.**—Perfumes and toilet preparations. P 47. 203

178 **Wenck & Briesen, New York, N. Y.**—Automatic parlor fountain. P 47. 203

179 **Chawshaw French Toilet Powder Co.**—Toilet powder and perfumed soap. T 48. 203

180 **Sulzberger, David, Philadelphia, Pa.**—Fluid extracts, by cold process; cooking extracts, fruit and liquor flavors, fruit ethers. P 48. 203

181 **Savournin, W. H., Philadelphia, Pa.**—Lily whites, rouges, toilet powders, etc. P 47. 203

182 **Malcom & Stevenson, Philadelphia, Pa.**—Fruit flavoring extracts. P 47. 203

184 **Woodworth, C. B., & Son, Rochester, N. Y.**—Perfumery, hair oils, pomades, cosmetics, flavoring extracts. T 47. 203

185 **Young, Ladd, & Coffin, New York, N. Y.**—Perfumes, oil of cologne, California water. T 48. 203

186 **Chesebrough Manufacturing Co., New York, N. Y.**—Vaseline, pomades, cerates, ointments, perfumes, cold cream, etc. P 43. 203

187 **Lorenz Bros., Toledo, O.**—Concentrated perfumes. P 47. 203

188 **Da Costa, D. R., Philadelphia, Pa.**—Tooth wash. P 48. 203

189 **Tallmadge & Co., New York, N. Y.**—Essential oils and fluid extracts. P 48. 203

190 **Fritzsch, Schimmel, & Co., New York, N. Y.**—Essential oils and artificial fruit essences. P 47. 203

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Perfumery, Toilet Articles, Explosive Compounds, Pottery.

191 **Bell, R. W., & Co., Buffalo, N. Y.**—Staple and toilet soaps. T 48. 203

191*a* **Hotchkiss, L. B., Phelps, N. Y.**—Peppermint, spearmint, wintergreen, and pansy essential oils. P 47. 203

192 **Taylor, C. R., & Co., Philadelphia, Pa.**—Toilet soaps and perfumery. P 47. 203

193 **Blair's, H. C., Sons, Philadelphia, Pa.**—Toilet articles. T 47. 203

194 **Colgate & Co., New York, N. Y.**—Fancy soaps and perfumery. P 47. 203

195 **Watson, Richard H., Philadelphia, Pa.**—Handkerchief extracts. De Vies's quadruple handkerchief extracts. These celebrated extracts are produced with great skill, from the finest articles known in perfumery, and for delicacy of perfumes, truthfulness to nature, and tenacity, they are particularly recommended; they are guaranteed to be of quadruple strength, and warranted not to turn rancid. Although not old extracts, they have taken favor immediately, and the best proof of their quality is their large and constantly increasing sales. A trial will convince you. P 47. 203

196 **Hoyt, E. W., & Co., Lowell, Mass.**—Cologne. P 47. 203

197 **Read, Wm. H., Baltimore, Md.**—Cologne, tooth wash, perfumeries. P 47. 203

198 **Worsley, Thos., & Co., Philadelphia, Pa.**—Toilet and fancy soaps, and toilet powders. P 47. 203

199 **Wright, R. & G. A., Philadelphia, Pa.**—Extracts, cologne, cosmetics, pomades, oils, dentifrices, toilet soaps, etc. P 47. 203

200 **Wolf Brothers & Keech, Centreville, Mich.**—Essential oils. P 47. 203

201 **Aschenbach & Miller, Philadelphia, Pa.**—Flavoring extracts and perfumery. P 47. 203

202 **Fricke, Arthur, Philadelphia, Pa.**—Perfumery. P 47. 203

203 **Burnett, Jos., & Co., Boston, Mass.**—Flavoring extracts, cologne water, and other toilet articles. P 48. 203

204 **Colton, J. W., Westfield, Mass.**—Colton's select flavoring extracts of choicest fruits and spices. They are strictly pure, rich flavors of the fruits, and are great saving in actual cost, to all. In a sale of thousands of gross, not one particle of coloring or adulteration has ever been used. P 43. 203

205 **Hale & Parshall, Lyons, N. Y.**—Essential oils. P 47. 203

206 **Atwood, Hermon W., New York, N. Y.**—Cologne. The proprietor takes pride in comparing this product of home manufacture with the best imported colognes. Delicacy of fragrance is combined with lasting and invigorating qualities. P 47. 203

207 **Mitchell, Geo. E., Lowell, Mass.**—Cologne. N 53. 203

207*a* **California Distilling Co., New York, N. Y.**—Essential oils and fruit extracts. P 48. 203

208 **Hambleton, J., & Son, Philadelphia, Pa.**—Bay rum, pomades, cosmetics, colognes, extracts, hair tonics, etc. P 43. 203

209 **Weaver, James B., Philadelphia, Pa.**—Cologne, Florida water, bay rum. T 49. 203

209*a* **Oriental Powder Mills, Boston, Mass.**—Imitation samples of military, sporting, and blasting powder. P 43. 204

210 **Barber Match Co., Akron, O.**—Drawing-room and sulphur matches. T 44. 204

211 **Toy, Bickford, & Co., Simsbury, Conn.**—Safety fuses. T 45. 204

211*a* **Du Pont de Nemours, E. I., Wilmington, Del.**—Powder canisters and saltpetre. T 40. 204

212 **Laflin & Rand Powder Co., New York, N. Y.**—Gunpowder, empty packages, patent cartridges for mining, fuses, crude materials. N 62. 204

212*a* **Zennig, R. H., & Co., New York, N. Y.**—Wax matches and tapers. P 43. 204

213 **Hazard Powder Co., Hazardville, Conn.**—Sporting and blasting gunpowder. H 71. 204

214 **Willis, Aug. L., Philadelphia, Pa.**—Pyrotechnic fog signals. H 71. 205

214*a* **Harris, H. G., New York, N. Y.**—Balloon signals. H 68. 205

Ceramics — Pottery, Porcelain, Glass, etc.

215 **Galloway & Graff, Philadelphia, Pa.**—Terra-cotta statuary, vases, tazzas, pedestals, fountains, flower pots, garden edging, etc. B 72. 206

216 **Neukumet, Philip, Philadelphia, Pa.**—Fire bricks, clay retorts, gas-house tiles, and ornamental building brick. X 56. 206

216*a* **Burns, Russell & Co., Baltimore, Md.**—Pressed brick masonry. Y 60. 260

217 **Moorhead Clay Works, Philadelphia, Pa.**—Terra-cotta sewer and water pipes, drain and roofing tiles, garden vases, chimney tops, and flues. (*Outside.*) 206

218 **Harvey & Adamson, Philadelphia, Pa.**—Drain and sewer pipe, garden vases, statuary, chimney tops, flues, etc. B 72. 206

218*a* **Davis & Chaddock, Boston, Mass.**—Fire bricks. Y 61. 206

219 **Remmey, Richard C., Philadelphia, Pa.**—Chemical apparatus for manufacturing acids. B 68. 206

220 **Gossin, F., Philadelphia, Pa.**—Terra-cotta ware, statuary, vases, fountains, pedestals, etc. B 69. 206

221 **Bowman, O. O., & Co., Trenton, N. J.**—Terra-cotta drain and sewer pipe, chimney tops, and flues; garden vases and statuary. B 71. 206

221*a* **Alexander, J. Park, Akron, O.**—V 63.
a Fire brick. 206
b Stone ware. 210

222 **Fritz, John, Philadelphia, Pa.**—Terra-cotta work, hanging baskets, rustic flower pots, vases, fern cases, etc.; imitation gas logs. B 69. 206

222*a* **Ogden, Isaac, Newark, N. J.**—Drain pipe. Y 55. 206

Pottery, Porcelain.

223 Scioto Fire Brick Co., Sciotoville, Ohio.—Fire bricks and fire clays. V 61 *to* 64. 206

223*a* Dover Fire Brick Co., Canal Dover, O.—Fire brick. T 63. 206

223*b* Boynton, C. W., & Co., Woodbridge, N. J.—Under-drainage tile, hollow building brick, and garden borders. Y 54. 206

224 Ambruster, John, Camden, N. J.—Pressed brick work. X 58. 206

225 Union Mining Co., of Allegheny county, Md.—Fire brick. X 58. 206

226 Wood Brothers, Hartford, Conn.—Drain tiles. W 53. 206

227 Hinvest, Robt., New York, N. Y. —Clamp and band for securing masonry, hollow brick for ventilation, chimney top. (*Outside.*) 206

227*a* Scattergood, W. W., Rancocas, N. J.—Drain tile. X 56. 206

227*b* Brick Enameling Co., Philadelphia, Pa.—Enameled bricks. U 48. 206

227*c* Richardson, Geo., Milwaukee, Wis. Artif. Stone and Pipe. T 51 & X 57. 206

228 Hews, A. H., & Co., North Cambridge, Mass.—Flower pots, fancy earthenware, garden vases, ferneries, battery jars, etc. B 69. 206

229 Hall, A., & Son, Perth Amboy, N. J. —Brick used in chimney of New Jersey State Building. 206

230 Maurer, Henry, Perth Amboy, N. J., and 418 to 422 East Twenty-third street, New York, N. Y.—Roofing tiles used upon the New Jersey State Building. Cheap, light in weight, thoroughly fireproof, perfectly water-tight. 206

231 American Kaolin Co. Works, New Garden, Chester Co., Pa.; office, 233 South Third street, Philadelphia, Pa.—Fire brick, tile, etc. X 58. 206

232 Wassel Fire Clay Co., Columbus, O.—V 63.
a Terra-cotta work. 206
b Fire brick. 207

233 Kreischer, B., & Son, Philadelphia, Pa.—X 56.
a Fire bricks, tiles, blocks, and slabs. 206
b Clay gas retorts, furnaces, and muffles. 207

233*a* Newton & Co., Albany, N. Y.—X 56.
a Fire brick. 206
b Stove linings, heater fire-brick linings, portable clay furnaces. 207

233*b* Friese, C., Philadelphia, Pa.—Statuary, vases, stumps, flower pots, hanging baskets, etc. T 76. 206

234 Hall, A., & Sons, Perth Amboy, N. J.—T 59.
a Diamantine front and fire bricks. 206
b Street paving blocks. 208
c Rockingham antique and yellow ware. 210

235 Hicks, George C., & Co., Baltimore, Md.—T 55.
a Terra-cotta pipe, vase, clays, etc. 206
b Fire bricks, gas retorts. 207
c Tiles. 208
Standard fire-clay gas retort, made from the renowned Maryland fire clays, and remarkable for refractibility, tenacity, and freedom from gathering carbon. Fire clays, all from within the city limits of Baltimore.

236 Walker, N. U., Wellsville, O. (*Outside.*)
a Sewer pipe, terra-cotta ware, chimney tops and statuary. 206
b Fire tiles, stove linings. 207
c Roofing tile. 208

237 State of New Jersey, by Geo. H. Cook, State Geologist, New Brunswick, N. J.—T 70.
a Sewer and drain pipe; fine and common pottery. 206
b Fire bricks. 207
c Stoneware. 210
d Window glass. 214
e Apothecaries' and bottle glass. 215

237*a* Hampton, Cutter, & Son, Woodbridge, N. J.—T 64.
a Fire brick. 207
b White ware. 210

238 Dixon Crucible Co., Jersey City, N. J.—Graphite crucibles, retorts, etc. P 72. 207

238*a* Haws, A. J., Johnstown, Pa.—Fire brick bottoms for blast furnaces, rolling mills, etc. Y 60. 207

239 McIlvaine Bros., Philadelphia, Pa. —Foundry facings. P 43. 207

239*a* Kier Bros, Pittsburg, Pa.—Y 56.
a Fire bricks. 207
b Tiles. 208

240 Goebel, J., & Co., New York, N. Y. —Clay and clay pots. T 57. 207

240*a* Burlington Manufacturing Co., Burlington, Vt.—Samples of tile floor. T 56. 208

240*b* Peck, Kennedy, & Co., New York, N. Y.—Clay roofing tile. (*Outside.*) 208

240*c* Field, F. K., Philadelphia, Pa.—Flagging and floor tiles. T 53. 208

241 Young's, Wm., Sons, Trenton, N. J.—Crockery and porcelain hardware trimmings. T 74. 209

242 Empire China Works. James L. Jensen, Proprietor, Green Point, Brooklyn, E. D., N. Y.—Porcelain hardware and cabinet trimmings; also, patent lemon squeezers, wood frame, porcelain lined; porcelain blade knife sharpeners, etc. N 70. 209

243 Moore, Joseph H., Trenton, N. J.—Earthenware. T 76. 210

244 Carr, James, New York, N. Y.—White granite, majolica and parian ware. T 77. 210

244*a* Laughlin Bros., East Liverpool, O.—Ironstone china ware. T 75. 210

245 Davis, Isaac, Trenton, N. J.—White granite and decorated crockery ware. T 75. 210

246 Jeffords, J. E., & Co., Philadelphia, Pa.—Yellow, Rockingham, white-lined, buff-stone, majolica, and lava wares. T 77. 210

246*a* Coxon & Co., Trenton, N. J.—Earthenware. T 77. 210

247 Astbury & Maddock, Trenton, N. J.—Earthenware for sanitary purposes; china and earthenware for general use. T 73. 210

248 Ott & Brewer, Trenton, N. J.—White granite, porcelain, and parian wares; vases, figures, table and toilet goods. T 73. 210

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp 27–45.

Pottery, Porcelain, Glassware.

249 Thompson, C. C., & Co., East Liverpool, O.—Pottery ware. T 76. 210

250 Yates, Bennett, & Allen, Trenton, N. J.—Dinner, dessert, tea, and toilet sets; crockery ware. T 77. 210

252 Brunt, Bloor, Martin, & Co., East Liverpool, O.—American white granite dinner, dessert, tea, and toilet decorated ware. T 74. 210

252*a* Speeler Pottery Co., Trenton, N. J. —T 75.
a Yellow and Rockingham fire-proof ware. 210
b Biscuit ware. 212

253 Baggott, S. & W., East Liverpool, O.—Rockingham and yellow ware. T 75. 210

253*a* Glasgow Pottery Co., Trenton, N. J.—T 73.
a Stone china and decorated ware. 210
b Majolica ware. 211

254 American Crockery Co., Trenton, N. J.—Chamber sets and table ware of bisque, white granite, and stone china. T 73. 213

255 Greenwood Pottery Co., Trenton, N. J.—Ironstone china, decorated dinner and toilet sets. T 74. 213

256 Mercer Pottery Co., Trenton, N. J. —Plain and decorative earthenware and china. T 75. 213

256*a* Union Porcelain Works, Green-point, N. Y.—Porcelain ware. T 75. 213

257 Onondaga Pottery Co., Geddes, N. Y.—White granite, and decorated table and toilet ware. T 77. 213

258 Hambleton, J., & Son, Philadel-phia, Pa.—Decorated porcelain plates, pitchers, barber mugs. P 43. 213

258*a* Bullock, Charles, Trenton, N. J. —China ware. T 77. 213

259 Lucas, John, & Co., Philadelphia, Pa.—Window glass. T 45. 214

260 Sallandrouze, S. P., Cincinnati, O.—Plate glass. P 43. 214

261 Cohansey Glass Manufacturing Co., Bridgeton, N. J.—N 49.
a Cylinder window glass. 214
b Bottles, vials, and demijohns. 215

262 Gilbert, F. A., New Haven, Conn.— Combination table. P 51. 217

262*a* Lambie & Sargent, New York, N. Y.—Adjustable table. P 51. 217

263 Klautsheck, Thomas, & Stewart, Philadelphia, Pa. (*Pavilion in park.*)
a Window glass. 214
b Glass shades. 216

264 Diamond Glass Co., Ravenna, O.—Double-thick glass from ground white sandstone, in windows of Ohio State Building. 214

265 Wenck & Co., New York, N. Y.— Atomizers. P 47. 215

265*a* Whitall, Tatum, & Co., Philadel-phia, Pa.—Druggists', perfumers', confectioners', etc., glassware; fruit jars. N 49. 215

266 Holzer, Wm., Philadelphia, Pa.— Druggists', chemists', philosophical, and fancy glassware. N 52. 215

267 Young, Ladd, & Coffin, New York, N. Y.—Perfume atomizers. T 48. 215

268 Pile, W. H., & Sons, Philadelphia, Pa.—Hydrometers, specific gravity bottles, graduated tubes, chemical thermometers, and analytical weights. N 50. 215

269 Caterson, Wm. M., Philadelphia, Pa.—Bottles for poisons. T 53. 215

270 Fox, H. C., & Sons, Philadelphia, Pa.—Druggists' and perfumers' glassware made from glass not containing lead. N 53. 215

271 Warner, Wm. R., & Co., Philadel-phia, Pa.—Drug dispensing bottles. P 43. 215

272 Whitney Bros., Glassboro', N. J.— Green and other colored glassware, for druggists, chemists, etc. N 54. 216

272*a* Smith Bros., New Bedford, Mass. —Engraving and decorating of glass. N 51. 216

273 Boston & Sandwich Glass Co., Bos-ton, Mass.—Glassware. Manufacturers of cut crystal chandeliers; rich cut glassware of every description, including the "Daniel Webster Punch Bowl." N 51. 216

273*a* Smith, H. J., & Co., Philadelphia, Pa.—Stained glass window of the "Crucifixion," the main figure after A. Durer's celebrated picture. (*North Gallery.*) 216

274 New England Glass Co., East Cambridge, Mass.—Glassware. N 50. 216

274*a* Smith Bros., New Bedford, Mass. —Decorated vases, shades, globes, etc. N 51. 216.

274*b* Jones, Thomas, New York, N. Y. —Ornamental cut and ground glass. N 49. 216

274*c* Hobbs, J. H., Brockunier, & Co., —Wheeling, W. Va.—Soda-lime glassware. N 52. 216

275 Dobelmann, J. B., Greenpoint, N. Y.—Cut and engraved glassware. N 53. 216

276 Hartell & Letchworth, Philadel-phia, Pa.—Gas globes, ornamental sheet glass, and Centennial devices. P 64. 216

277 Mount Washington Glass Works, New Bedford, Mass.
a Cut crystal floral fountain. T 45. 216
b Crystal toilet table, prismatic candelabra, chandelier, vases, glassware. N 51. 216

278 La Belle Glass Co., Bridgeport, Ohio.—Table, bar, and lamp goods, cut and engraved ware. N 52. 216

279 Keystone Flint Glass Co., Pitts-burg, Pa.—Pure lead glass, lamp chimneys, silvered glassware. N 51. 216

280 Bakewell, Pears, & Co., Pittsburg, Pa.—Pressed and blown crystal and opal glassware. N 51. 216

281 Ripley & Co., Pittsburg, Pa.—Imi-tation cut glassware, lamps blown and cut; bar goods cut and engraved. N 49 *to* 51. 216

283 Richards & Hartley Flint Glass Co., Pittsburg, Pa.—Crystal glass table ware, lamps, etc. N 49 *to* 51. 216

284 Adams & Co., Pittsburg, Pa.— Flint and opal glassware. N 49 *to* 51. 216

285 Atterbury & Co., Pittsburg, Pa.— Lamps and glassware, gas and kerosene globes. N 49 *to* 51. 216

286 Excelsior Flint Glass Co., Pittsburg, Pa.—Glass lamp chimneys, silvered glass reflectors. N 49 *to* 51. 216

287 Rochester Tumbler Co., Pittsburg, Pa.—Glass tumblers. N 49 *to* 51. 216

288 Crystal Glass Co., Pittsburg, Pa.—Moulded or pressed crystal glass table ware, etc. N 49 *to* 51. 216

289 Central Glass Co., Wheeling, W. Va.—Pressed glassware. N 52. 216

290 Albertson, J. M., Norristown, Pa.—Window glass, glass shades; colored, obscured, and corrugated glass. N 51. 216

Furniture and Objects of General Use in Construction and in Dwellings.

291 Collender, H. W., New York, N. Y.—Billiard tables, cue stand and marker, pool boards and buffet. T 51. 217

291*a* Doremus, P. C., New York, N. Y.—Sofa bed and lounge. V 51. 217

291*b* Pottin Register Manufacturing Co., Philadelphia, Pa.—Parlor billiard table. P 57. 217

292 Mitchell & Rammelsburg Furniture Co., Cincinnati, O.—Rosewood bed and bureau, renaissance style; walnut dining furniture and hall stand, mediæval style. P 60. 217

292*a* Collignon Bros., New York, N. Y.—Folding rocking chairs, settees, chairs. V 71. 217

293 Cole, Alexander, Manumuskin, N. J.—P 52.
a Iron and wood spring-bottom bedsteads. 217
b Sash fastener. 227

294 O'Hara, Chas. M., Philadelphia, Pa.—"Hygienic" chairs. P 58. 217

295*a* Miller, L. H., Baltimore, Md.—Fire and burglar proof safes. H 68. 217

296 Gardner & Co., New York, N. Y.—Chairs, settees, car and depot seats, etc. T 58. 217

296*a* New Haven Folding Chair Co., New Haven, Conn.—Portable folding chairs. T 59. 217

297 McKinley, John, Philadelphia, Pa.—Patent barbers' chairs. T 58. 217

297*a* Pabst, Charles, Philadelphia, Pa.—Sofa bed. P 52. 217

298 Allen & Bro., Philadelphia, Pa.—Furniture and interior decorations. P 54. 217

298*a* Reeves, S. H., & Co., New York, N. Y.—Spring bottom bed. P 52. 217

299 Adjustable Folding Chair Co., Pittsburg, Pa.—Adjustable folding chair. P 58. 217

299*a* Brady, E. W., Davenport, Ia.—Wooden slate window shades. T 52. 217

300 Henkels, Geo. J., Philadelphia, Pa.—Chamber furniture of wood from Independence Square; sofa beds. P 57. 217

300*a* Meriden Curtain Fixture Co., Meriden, Conn.—Curtain fixtures. P 53. 217

301 Smith & Campion, Philadelphia, Pa.—Parlor, dining-room, chamber, and library furniture. T 55. 217

301*a* Sawyer & Buckley, Meriden, Conn.—Chess and backgammon tables. P 53. 21,

302 Hart, Clarence A., Philadelphia, Pa.—Military equipments, gold fringes, etc. B 78. 217

302*a* Krause, Frederick W., Chicago, Ill.—Gothic chairs. W 52. 217

303 Campbell, Wm., New York, N. Y.—Spring rollers for window curtains. T 52. 217

303*a* Harmon, J. C., Philadelphia, Pa.—Inlaid checker board. (*East Gallery.*) 217

304 Delaware Chair Co., Delaware, O.—Double cane-seat chairs. T 58. 217

304*a* Stevens, C. A., & Alrich, W. H., Philadelphia, Pa.—Folding bedstead. P 54. 217

305 Phelps, Doremus, & Corbett, 264 and 266 Canal street, near Broadway, New York, N. Y.—W. T. Doremus' patent chair base, patent rubber springs for oscillating chairs, patent oscillating rubber-spring chairs. Being combinations, affording manufacturers a wide range in the production of chairs for office, library, or parlor use. P 53. 217

305*a* Smith, Wm. B., New York, N. Y.—Improvement in counter show case. N 41. 217

306 Moore, York, & Howell, Philadelphia, Pa.—Parlor furniture, folding tables. T 54. 217

306*a* Shroeder, F. & H., Cincinnati, O.—Pulpit, with sounding board. P 47. 217

307 Loth, Henry, Philadelphia, Pa.—Folding table. P 51. 217

307*a* Spofford, Jennie H., Philadelphia, Pa.—Mattress bracket holders, mosquito bar. P 50. 217

308 Ferrari, Guiseppe, New York, N. Y.—Cabinet, richly carved, in Italian style of fifteenth century. P 58. 217

308*a* Brigg, M., & Son, Rochester, N. Y.—Fire and burglar proof safes. H 71. 217

309 Everitt, Elisha E., Philadelphia, Pa.—Portable and stationary washstand and writing desk combined; sofa bed. P 56. 217

309*a* Claes & Co., St. Louis, Mo.—Silver-plated show case. T 60. 217

310 Schubeuter, J., St. Louis, Mo.—Silver-plated show case. T 60. 217

311 Spiral Elliptic Spring Works, Cincinnati, O.—Springs for upholstering. P 53. 217

311*a* Brunswick Bros., Stephani, & Hart Co., St. Louis, Mo.—Billiard table and cue rack. T 54. 217

312 Woven Wire Web Bed Co., New Britain, Conn.—Woven wire bed bottom. P 53. 217

313 Knell, Geo., Philadelphia, Pa.—Sofa bed, invalid chair and bed, rocking reclining chair, chair and lounge, photographic chairs. T 59. 217

313*a* Adams, Dan., Nashville, Tenn.—Hat-rack and chairs made of wood from "The Hermitage," the old home of Andrew Jackson. V 72. 217

Furniture and Decoration.

314 Carrington, De Zouche, & Co., Philadelphia, Pa.—Interior decorations, traverse curtain fixture. P 56. 217

315 Sheppard, Arrison, & Sheppard, Philadelphia, Pa.—Curtains, decorations, and upholstered furniture. P 53. 217

316 Marcotte, L., & Co., New York, N. Y.—Library (Henry II.) and dining-room (Louis XIII.) furniture. T 52. 217

317 Lever Spring Bed Co., Springfield, O.—Spring bed. P 52. 217

318 Lamb, J. & R., New York, N. Y.—Church furniture, metal work, embroideries, and decorations. P 43. 217

319 Heiligmann & Bro., Philadelphia, Pa.—Solid wood cabinet carvings. P 57. 217

320 Wakefield Rattan Co., Boston, Mass.—Rattan furniture and ornamental ware. T 57. 217

321 White, Otis C., Hopkinton, Mass.—Stationary and portable head-rests for chairs and car-seat backs. This is a new mechanical combination of simple construction, which affords a complete opposition movement of great range, to all positions, without removing the head from the upholstery, and fastened by a single clamp. The portable kinds fold up to take but little space, make their own fastening to almost any form where support to the head is desired; they are simple, elegant, and thoroughly practical. Correspondence and orders solicited. T 59. 217

322 Lambie & Sargent, New York, N. Y.—Adjustable table. P 51. 217

323 Herts & Co., New York, N. Y.—Chamber suite, carved amaranth, ebony, and maple woods; upholstery, Horsfall's dressing-case wardrobe. P 54. 217

324 Cutter, Ephraim, Cambridge, Mass.—Adjustable chair for supine postures. N 58. 217

324*a* Russell, W. P., & Co., Charleston, S. C.—Show case in form of a ledger. P 74. 217

325 Kaiser & Herzog, 1005 Walnut street, Philadelphia, Pa.—Decorative painting for ceilings and side walls, in the modern renaissance style, executed after original designs by the firm. P 56. 217

326 Steele, John, Louisville, Ky.—Folding opera chairs; church, lawn, and school seats. T 58. 217

327 Kimbel & Cabus, New York, N.Y.—Parlor furniture and decorations. P 56. 217

328 Vaill, E. W., Worcester, Mass.—Patent folding chairs, in great variety. Business established 1861. I claim for my chairs durability, thoroughness of finish, simplicity in folding, and compactness when folded. Very extensive assortment of styles, adapted for parlor, drawing-room, library, veranda, and shipboard; also, a line suitable for tropical climates. On account of limited space allotted, am compelled to make a comparatively meagre exhibit. T 57. 217

329 Cutler, A., & Son, Buffalo, N. Y.—Business desks, reading tables, patent automatic folding parlor tables. P 53. 217

330 Turner, Henry A., & Co., Boston, Mass.—Sofas and chairs. B 68. 217

331 Koechling B. H., New York, N. Y.—Opera folding chairs. P 51. 217

COLLECTIVE EXHIBIT OF THE SCHOOL OF DESIGN, UNIVERSITY OF CINCINNATI, OHIO. (*South Gallery.*) 217

331*a* Whittemore, R. R.—Laocoon.

331*b* Woodward, W. W.—Fugitive Slave.

331*c* Humphreys, Ella.—Illumination and frescoed ceiling.

331*d* De Camp, Essie.—Panel

331*e* Rettig, John.—Centre for ceiling and border for wainscoting.

331*f* Merrill, Susie.—Panel centre.

332 Seymour, H. J., Chair Co., Troy, N. Y.—Bent chairs, patent braided chairs and rockers, walnut dining and library chairs. T 58. 217

333 Cooper, Jas. W., & Bro., Philadelphia, Pa.—Fancy cabinet ware, wood carvings, etc. P 57. 217

334 Stiles, Mrs. E. W., Philadelphia, Pa.—Combination desk. P 50. 217

335 Karcher's, Daniel M., Sons, Philadelphia, Pa.—Sideboard. P 60. 217

336 Yandell, Chas. R., & Co., New York, N. Y.—Leather window lambrequins, embossed wall leather hangings, leather chairs and tables. P 52. 217

337 Schrenkeisen, M. & H., New York, N. Y.—Upholstered rocking chair on castors. P 53. 217

338 Kilian Brothers, New York, N. Y.—Easels, parlor table, music stand, table, card receiver. P 51. 217

339 Schastey, Geo. A., New York, N. Y.—Furniture and interior decorations. P 58. 217

340 Brown & Bliss, 169 Canal street, New York, N. Y.—Dining-room furniture, extension tables, sideboards, etc. Special manufacturers and exporters of dining-room furniture "*en suite*," including extension tables of every description, with patent slides and patent screw-leg corner block, also sideboards and side tables with leaves of extension table enclosed within. T 50. 217

341 Palmer, Theo. J., New York, N. Y.—Rocking or reclining chair on castors. P 53. 217

342 Kittle, S. P., No. 203 Canal street, New York, N. Y.—Spring mattresses for under-mattress, or with mattress and bolster combined, and made to fold compactly for transportation, when desired; also, spring mattresses with straight frame and elastic edges; others so constructed that both sides and all the edges are alike elastic and most comfortable. A moderate outlay in these goods will insure a most exquisite bed. P 52. 217

343 Schenck, Jas. V., New York, N. Y.—Crescent spring mattress. P 51. 217

344 Paton, Robt., & Son, New York, N. Y.—Church and school furniture, Sunday-school and lecture-room settees. P 54. 217

345 Postawka, L., & Co., Cambridgeport, Mass.—The "X" piano taboret. P 60. 217

346 Roach, J. Chandler, Philadelphia, Pa.—Spring bedstead. P 52. 217

Furniture.

347 Deetz, Edward, Philadelphia, Pa.—Adjustable sleeping apartment or retiring room. P 57. 217

348 Reeves & Eastburn, Philadelphia, Pa.—Folding bedstead, sofa or parlor bedstead, chamber furniture, bedstead fastening. P 56. 217

349 Ahrens, Geo., Crete, Ill.—Extension table. T 50. 217

350 Briggs, Joshua, Peterborough, N. H.—Piano stools. P 51. 217

351 Taylor, W. O., & Son, Bedford, O.—Double cane-seat rockers and chairs. T 59. 217

351*a* National Wire Mattress Co., New Britain, Conn.—Wire mattresses. P 53. 217

352 United States Spring Bed Co., Springfield, Mass.—Spring beds. P 52. 217

353 Chormann, E. G., Philadelphia, Pa.—Parlor, sketching, and studio easels. P 50. 217

354 Griendling, John, 213 N. Second street, Philadelphia, Pa.—Barber's chair, foot-rest, and hair-dressing standard. This chair is easily regulated for shaving and hair-cutting combined. An examination will satisfy any one of its merits. P 51. 217

354*a* Maires & Reed, New York, N. Y.—Adjustable iron chairs. P 50. 217

355 Matlack, Henry S., Philadelphia, Pa.—Paper hanging and fresco painting. P 50. 217

355*a* Gale, D. A. T., Syracuse City, N. Y.—Metallic spring webbing mattress. P 50. 217

356 Berkey & Gay Furniture Co., Grand Rapids, Mich.—Chamber suite, lounges. P 59. 217

356*a* Excelsior School Furniture Manufacturing Co., Cincinnati, O.—Church furniture. T 52. 217

357 Phœnix Furniture Co., Grand Rapids, Mich.—Bed-room suites, sideboard, hall stand. P 57. 217

358 Wooton Desk Co., Indianapolis, Ind.—Cabinet office secretary, rotary office desk. P 52. 217

359 Nelson, Matter, & Co., Grand Rapids, Mich.—Chamber suites. P 58. 217

359*a* Peck, Henry, New York, N. Y.—Show cases for various exhibitors. 217

360 Junge, Albert, Pittsburg, Pa.—Spring mattress. P 53 217

361 Pabst, Daniel, Philadelphia, Pa.—Walnut sideboard. P 58. 217

362 Richmond, Backus, & Co., Detroit, Mich.—Combined coupon and local railroad ticket case, with secretary and desk. P 58. 217

363 Fyler, E. W., Philadelphia, Pa.—Bedstead. P 53. 217

364 Halm, Bellows, & Butler, Columbus, O.—Furniture. P 50. 217

365 Buschor, Chas., Philadelphia, Pa.—Parlor furniture, decorations, window blinds with cornice, curtains, and outside shutters; show cases. P 56. 217

366 Vollmer, G., Philadelphia, Pa.—Furniture. T 54. 217

367 Thole, B., St. Louis, Mo.—Book case. P 59. 217

368 Swasey, I. N., M.D., Yonkers, N. Y.—Billiard tables; Trichorum table, a new principle in carpentry, securing a permanently level surface, and new built up work samples from the French Manufacturing Co. of New York City. T 51. 217

369 Hover, H. F., Philadelphia, Pa.—Folding wardrobe and lounge. P 50. 217

370 Most, John H., Old Saybrook, Conn—Furniture made from wood of the "Charter Oak," Hartford, Conn. F 62. 217

371 Snyder, C. Ridgway, Minneapolis, Minn.—Work table, combining lap board and writing desk. P 50. 217

372 Caulier, F., Philadelphia, Pa.—Wardrobe bedstead. P 54. 217

373 Pottier & Stymus Manufacturing Co., New York, N. Y.—Bedstead, cabinet, bahut, table, door, door trimming, window cornice, curtains, sofa, chairs. P 55. 217

374 Schafft, Fridolin, Detroit, Mich.—Sideboard. P 60. 217

375 Ransom, D. L., & Co., Buffalo, N. Y.—Adjustable desks and business cabinets, can be adjusted to any position, at any moment, without disarranging any books, papers, etc. Five different styles, for private and general offices. Send for circular. T 50. 217

376 Wagan, R. M., Mount Lebanon, N. Y.—The Shakers' web-seated chairs, also with web backs, or with plush cushions, and foot-benches to match. The only manufacturer of the "Genuine Shakers' Chairs." P 52. 217

376*a* Killgore, J. L., Wilmington, Del.—Tourists' and miners' folding bedstead and spring bed. W 54. 217

377 Hutchings, E. W., & Son, New York, N. Y.—Sideboard and chair. P 59. 217

378 Demarest, Joyce, & Co., New York, N. Y.—Opera chairs. V 51. 217

379 Centennial Rolling Chair Co., Philadelphia, Pa.—Rolling chairs. (*Nave.*) 217

380 Cunningham, Peter B., Bethlehem, Pa.—Anthracite coal table, from Council Ridge coal fields, Luzerne county, Pa. T 53. 217

380*a* Nichols, W., Boston, Mass.—Book rack. P 47. 217

381 Fifield, J. B. M., Philadelphia, Pa.—Magic bed sofa. T 58. 217

382 Beard & Bro., St. Louis, Mo.—Burglar proof safes. B 70. 217

383*a* Hassenforder, C., Philadelphia, Pa.—Safes. H 71. 217

384 Lord, J. E., & Co., Quincy, Ill.—Spring bed bottom. P 52. 217

385 Goodwin, A. J., Brookline, Mass.—Sanitary bedstead. P 52. 217

386 Hill, Edwin P., Haverhill, Mass.—Folding table. P 50. 217

387 Ivins & Bro., Philadelphia, Pa.—Walnut bed. P 53. 217

388 Seidler & May, Hartford, Conn.—Sofa bed and adjustable extension chair P 52. 217

389 Hopper, C. C., Philadelphia, Pa.—Chamber furniture. P 57 217

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

390 Andrews, A. H., & Co., Chicago, Ill.—T 67.
a School, church, office, and bank furniture; desks, pews, pulpits, chairs. 217
b Marquetry flooring. 217

391 Coburn Manufacturing Co., Philadelphia, Pa.—Canopy wardrobe and wardrobe arm. P 51. 217

392 Rhoner, Frank, & Co., New York, N. Y.—Reclining chairs. P 53. 217

393 Close, Thos. J., Philadelphia, Pa.—Reversible settees. N 63. 217

394 Allen, Jas. T., & Co., New York, N. Y.—Rockers. W 54. 217

395 De Bock, Matthew, South Boston, Mass.—Cabinet, work table, and frame. P 51. 217

396 Paine's Furniture Manufactory, Boston, Mass.—Pulpit and church furniture, case of designs. T 60. 217

397 Brunswick, J. M., & Balke Co., Chicago, Ill.—Billiard tables and materials; ivory and ten-pin balls. T 51. 217

398 Collins & Sturgeon, New York, N. Y.—Reclining chair. T 53. 217

399 Ellin, Robt., & Co., New York, N. Y.—Eagle lectern carved in oak, sideboard, font, hall chairs, and litany desk. P 52. 217

400 Morse, L., & Son, Athol, Mass.—Folding settee. P 51. 217

401 Hartshorn, Stewart, New York, N. Y.—Window-shade rollers. T 51. 217

402 Glenn, Frank, Philadelphia, Pa.—American buffet. B 41 *to* 44. 217

403 Walter Heywood Chair Co., Fitchburg, Mass.—Chairs. Adapted for export to every foreign port and the home trade. T 59. 217

404 Whitney Manufacturing Co., South Ashburnam, Mass.—Chairs. W 50. 217

405 Sawin, L. H., Gardner, Mass.—Cane-seat chairs. W 52. 217

406 French, Julia B., Boston, Mass.—Cabinet and bedstead. N 60. 217

407 Decker, L., & Co., New York, N. Y.—Billiard tables and appurtenances. P 54. 217

408 Heywood Brothers & Co., Gardner, Mass.—Cane and wood seat and rattan chairs, rattan furniture, chair cane, reeds, etc. W 50. 217

410 Derby, Philander, Gardner, Mass.—Cane-seat chairs. Manufacturer of, and dealer in, all varieties of cane and wood-seat chairs for home and export trade. W 51. 217

411 Rath, Paul, New York, N. Y.—Bay-window curtain, screen, and pedestal. P 41. 217

411*a* Wilson, George, Chicago, Ill.—T 59.
a Folding bedstead and table combined, and recumbent reading chair. 217
b Mangle. 225

412 Watson, J., & Son, Philadelphia, Pa.—Safes, ladies' jewelry stand. H 72. 217

413 Hall's Safe and Lock Co., Cincinnati, O.—Fire, burglar, and fire and burglar proof safes, deposit vaults. H 67. 217

414 Herring & Co., New York, N. Y.—Bank vaults and doors; fire and burglar proof safes. H 69. 217

415 Farrel & Co., Philadelphia, Pa.—Fire and burglar proof safes. H 67. 217

416 Terwilliger & Co., New York, N. Y.—Fire and burglar proof safes. H 72. 217

417 Corliss Safe Co., Providence, R. I.—Burglar proof safes. H 67. 217

418 Valentine & Butler Safe & Lock Co., New York, N. Y.—Burglar and fire proof safes. H 70. 217

419 Marvin's Safe Company, New York, N. Y.—Safes. H 69. 217

420 Schermerhorn, Charles, New York, N. Y.—T 50.
a Towel stand and rack. 217
b Mirror. 219

421 Thiery, Adolph, Philadelphia, Pa.—P 51.
a Tables. 217
b Mirrors. 219

422 Dubernet, L., New York, N. Y.—P 52.
a Bamboo and fancy fire-gilt furniture. 217
b Paper, velvet, metal, and gilt frames. 220

422*a* Feust & Rice, New York, N. Y.—P 51.
a Cabinet ware. 217
b Mirror frames and brackets. 220

423 Speth, K. L., New York, N. Y.—P 53.
a Fancy cabinet ware. 217
b Carvings, easels, pedestals, brackets, mosaic veneer, etc. 220

424 Earle, James S., & Sons, Philadelphia, Pa.—P 49.
a Gilt tables. 217
b Framed looking glasses, Venetian mirrors. 219
c Picture frames, brackets. 220

425 Lowe, A. C., Philadelphia, Pa.—P 50.
a Gilt bouquet tables. 217
b Looking glasses. 219
c Picture frames. 220

426 Hale, Kilburn, & Co., Philadelphia, Pa.—P 55.
a Folding bed and crib, flexible-seat chairs, spring beds. 217
b Looking glasses. 219
c Picture frames. 220

427 McClees, J. E., & Son, Philadelphia, Pa.—T 49.
a Gilt chairs and tables. 217
b Mirrors. 219
c Fancy frames. 220

428 Salter, Jno. G., Philadelphia, Pa.—P 50.
a Console tables. 217
b Mirrors. 219
c Cornices, portrait frames. 220

428*a* Smith, Eldridge J., Philadelphia, Pa.—H 69.
a Adjustable desk, school desk and seat. 217
b Cooking utensil. 224
c Stair rods. 227

429 Reukauff, Geo. C., Philadelphia Pa.—P 52.
a Bouquet tables. 217
b Mirrors. 219
c Cornices, picture frames. 220
d Mantelpiece. 227

430 Tiffany & Co., New York, N. Y.—Silver and plated ware, incrustations o metals. N 41. 218

ESTABLISHED 1810.

W. A. BROWN & CO.

SUPERIOR

UMBRELLAS AND PARASOLS.

Manufactories in Philadelphia.



TRADE-MARK.

WAREROOMS:

246 Market Street,
PHILADELPHIA.

498 & 500 Broadway,
NEW YORK.

Corner of Belmont and Fountain Avenues,

NEAR THE LAKE.

FRENCH RESTAURANT,

LES TROIS FRÈRES PROVENCAUX.

The same which had such a great success in the Vienna Exhibition, in 1873.

CH. VERDIER,
of the MAISON DORÉE, of Paris, Proprietor.

Near the Lake, opposite the U. S. Government Building.

HIGHEST PREMIUM, A SILVER MEDAL, AWARDED BY AMERICAN INSTITUTE.

FURNALD & CHAMPION,

Manufacturers and Importers of

BRUSHES

AND

FEATHER DUSTERS,

No. 47 Warren Street,
NEW YORK.

PITTSBURGH

DAILY "EVENING CHRONICLE."

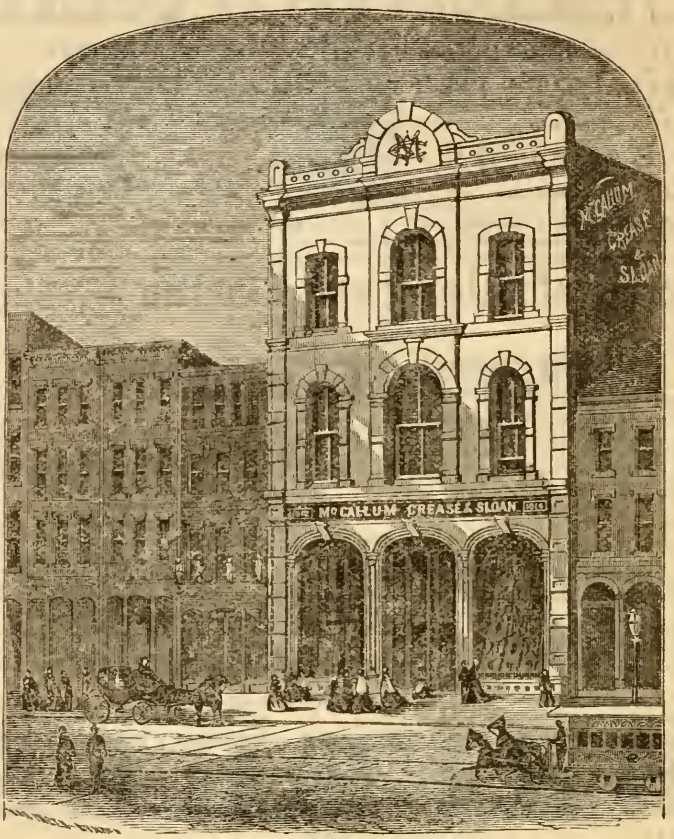
ESTABLISHED 1841.

The only Evening Paper in Pittsburgh receiving the Associated Press Dispatches.

Circulating chiefly among families of Western Pennsylvania, Eastern Ohio, and Western Virginia, no better medium for reaching the purchasing community can be selected.

GLEN ECHO CARPET MILLS,

GERMANTOWN, PHILAD'A.



McCALLUM, CREASE & SLOAN

Manufacturers, Importers, Jobbers, and Retailers of

Carpetings,

1012 AND 1014 CHESTNUT STREET,

PHILADELPHIA.

Furnature, Table Furniture, Decoration.

430*a* Mitcheson, Mrs. M. J., Philadelphia, Pa.—Moustache spoon. N 41. 218

431 Bailey & Co., Philadelphia, Pa.—Silver ware. N 43. 218

432 Caldwell, J. E., & Co., Philadelphia, Pa.—Silver ware. N 41. 218

433 Meriden Britannia Co., West Meriden, Conn.—Fine electro-plated table ware, articles of ornament and vertu. N 43. 218

434 Derby Silver Co., Derby, Conn.—Hard metal silver-plated table cutlery and morocco-cased plated goods. P 46. 218

436 Krider, Peter L., Philadelphia, Pa.—Sterling silver ware. P 43. 218

437 Reed and Barton, Taunton, Mass.—Electro-plated nickel, silver and white metal table and presentation ware. N 47. 218

438 Ledg, A., & Son, Philadelphia, Pa.—Silver and nickel-plated ware in hard metal. P 43. 218

439 Middletown Plate Co., Middletown, Conn.—Silver-plated ware. N 43. 218

440 Gorham Manufacturing Co., Providence, R. I.—Silver ware, fine plated ware, plate chests, silver and jewelry cases. N 41. 218

441 Manning, Bowman, & Co., West Meriden, Conn.—Nickel-plated ware. N 69. 218

442 Kann & Sons Manufacturing Co., Baltimore, Md.—Albata and britannia tea and tablespoons. P 43. 218

443 Robbins, Clark, & Biddle, Philadelphia, Pa.—Silver ware. N 43. 218

444 Meriden Silver Plate Co., West Meriden, Conn.—Silver-plated and fine cut glass ware. N 43. 218

445 Holmes, Booth, & Haydens, Waterbury, Conn.—Silver-plated ware. T 61. 218

447 Mix, G. I., & Co., Yalesville, Conn.—Tea and tablespoons; planished and britannia tea and coffee pots, water coolers, etc. N 71. 218

448 Hall, Elton, & Co., Wallingford, Conn.—Electro-plated tableware, spoons, forks, ladles, knives, etc. P 43. 218

449 Sigler, C. & J., Paterson, N. J.—Embossed glass signs and table tops, glass letters, carved wood signs. T 49. 219

449*a* Sallandrouze, S. P., Cincinnati, O.—Venetian mirrors and hand glasses. P 43. 219

450 Walker Glass Importing, Silvering, Manufacturing Co., New York, N. Y.—Venetian or crystal cut, engraved, distorting, and toilet mirrors. N 54. 219

450*a* Sharp, Henry E., Son, & Colgate, New York, N. Y.—Stained glass windows. (*North Gallery.*) 219

451 Florence Manufacturing Co., Florence, Mass.—Hand mirrors. B 70. 219

452 Newman, Geo. C., 806 Market street, Philadelphia, Pa.—P 51.
- *a* Looking glasses. 219
- *b* Lacquered mouldings (imitation of gold gilding) for picture frames and window cornices, and ornaments for same. This imitation of gilding is cheap and durable. 220

452*a* Schier, H., New York, N. Y.—P 53.
- *a* Mirror. 219
- *b* Brackets and book rack. 220

453 Faser, Christian, Philadelphia, Pa.—P 49.
- *a* Looking glasses. 219
- *b* Picture frames. 220

454 Shaw, J. H., & Co., Philadelphia, Pa.—P 52.
- *a* Looking glasses. 219
- *b* Picture frames, mouldings. 220

455 Boland, Fred., Philadelphia, Pa.—P 50.
- *a* Looking glasses. 219
- *b* Pier cornices, picture frames. 220
- *c* Mantels. 227

456 Durand, Dominique, New York, N. Y.—Venetian looking glass. T 46. 219

457 Clark, C. W., Philadelphia, Pa.—Window shades, window shade cloth, and shade fixtures. T 52. 220

458 Johnston, Ed. S., Philadelphia, Pa.—Window shade rollers, window shades, lambrequins, cornices. T 53. 220

459 Gleason, W. B., & Co., West Camden street, opposite Chickering station, Boston, Mass.—Artificial wood ornaments for interior decoration, etc. Descriptive circulars will be found at the exhibit. O 78. 220

461 Reifschneider, Felix, New York, N. Y.—Velvet frames, morocco and velvet miniature cases. P 52. 220

462 Pape, Bros., & Kügemann, Cincinnati, O.—Mouldings for picture frames, portrait and photograph frames. P 51. 220

463 Carter, A. A., Philadelphia, Pa.—Window screens. T 50. 220

464 Whittier, Reuben S., Hyde Park, Mass.—Window screen and mosquito bar. T 51. 220

464*a* Shorey, John, & Co., Lowell, Mass.—Shade fixtures. T 52. 220

465 Kilgore, Damon Y., Philadelphia, Pa.—Inside window blinds. These blinds, adjustable, artistic, lowering from the top, light, combining beauty with economy, overcome all defects of Venetian blinds. Patented. T 53. 220

466 McKay, Ferd. C. D., Paterson, N. J.—Self-regulating shade rollers. T 51. 220

467 Nonnenbacher, John, & Co., New York, N. Y.—Gilt and imitation mouldings for picture frames and cornices. P 68. 220

468 Salem Shade Roller Manufacturing Co., Salem, Mass.—Control wood rollers, flying pawls, automatic stops for balance rollers. T 50. 220

469 Colwell, F. E., & Co., Chicago, Ill—Mouldings and picture frames, shade fixtures. P 51. 220

470 Louderback, Edwin, Philadelphia, Pa.—Rustic window shades of wood. T 49 220

471 Dickinson, Alfred S., New York, N. Y.—Spring roller and drop window shades, safety brackets, and pulley blocks. T 53. 220

472 Lloyd Bros., Philadelphia, Pa.—Ventilating shade fixtures. T 50. 220

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

473 American Shade Roller Co., Boston, Mass.—Shade rollers, window shades, and fixtures. T 51. 220

474 Hewett, William, Philadelphia, Pa. —Self-operating swing carriage for parks and lawns. (*Outside.*) 221

474*a* Fisher, H., St. Louis, Mo.—Automatic swing. (*Missouri Building.*) 221

475 Beaudet, Homer J., Greenpoint, Long Island, N. Y.—Swing-convertible cradle. P 50. 221

476 Batley, John, Philadelphia, Pa.—Child's cradle or crib. P 51. 221

477 Rusk, Thos. J., Philadelphia, Pa.—Swing. (*In Park.*) 221

478 Providence Gas Burner Co., Providence, R. I.—P 47.
a "Novelty" gas cooking stoves; ovens and heaters, burning without smoke or smell. 222
b Gas burners, drop-light sockets, shade and globe holders, etc., manufactured from wrought brass. 223

478*a* Eldridge, G. Morgan, Philadelphia, Pa.—Automatic stove-damper. (*On stove pipe in Louisiana State Building.*) 222

479 Thackara, Buck, & Co., Philadelphia, Pa.—Gas fixtures, chandeliers, brackets, hall lights, reading lights, etc. N 60. 223

479*a* Miller & Eastmead, New York, N. Y.—Ship and railroad lanterns. P 47. 223

480 Cornelius & Sons, Philadelphia, Pa.—Gas fixtures, bronzes, etc. N 47. 223

480*a* New York Lamp Co., New York, N. Y.—Railroad and steamship lamps. P 47. 223

481 Bartlett, Jos. W., New York, N. Y. —Crystal and reflecting street lamps. N 50 *and* P 49. 223

481*a* Pennsylvania Globe Gaslight Co., Philadelphia, Pa.—Lanterns and apparatus for lighting streets. P 43. 223

482 Archer & Pancoast Manufacturing Co., New York, N. Y.—Gasoliers, centre slide chandeliers, ornamental bronzes, ecclesiastical metal work. N 47. 223

482*a* Kelly, S. S., Philadelphia, Pa.—Gas brackets, pendants, brass fittings, etc. T 45. 223

483 American Reflector Co., Philadelphia, Pa.—Gas and daylight reflectors, lanterns and shades. P 47. 223

483*a* Rollins, Geo. D., Philadelphia, Pa.—Automatic self-regulating gas burner. T 50. 223

484 Tucker, Hiram, & Co., Boston, Mass.—Iron gas chandeliers, brackets and statuettes. N 47. 223

484*a* Heywood, C. L., & Bruce, J. M., Boston, Mass.—Elevating street lamp; Bruce's vesper street lamp for towns, villages, and private grounds; patented by J. M. Bruce, December 22, 1874. Office, 4 Haymarket square. X 59. 223

485 Willheim & Newmann, Philadelphia, Pa.—Cast iron posts and brackets, street lanterns, mica reflectors, and car trimmings. N 48. 223

485*a* Henrichs, C. F. A., New York, N. Y.—Lamp with non-combustible wick and regulated burner; study lamps. N 47. 223

486 Quarré, V., Co., General Lithographers, 832 and 834 Arch street, Philadelphia, Pa.—Gas and lamp shades, and transparent window pictures. N 48. 223

486*a* Beidler, Geo. A., Philadelphia, Pa.—Lamp burners for use without chimneys. P 48. 223

487 Baker, Arnold, & Co., Philadelphia, Pa.—Gas fixtures. N 48. 223

488 Miner, Jacob G., New York, N. Y. —Street lamps for gas or oil. P 47. 223

489 Wilhelm, August, Philadelphia, Pa.—Ceiling reflectors. P 47. 223

490 Bradley & Hubbard Manufacturing Co., West Meriden, Conn.—Kerosene and gas chandeliers, brackets and fixtures, lamps. N 47. 223

491 Kramer, J. H., New York, N. Y.—Ornamental lanterns. P 47. 223

492 Walton Bros., New York, N. Y.—Railroad and steamship brass lanterns and supplies. P 47. 223

493 Dyott, M. B., Philadelphia, Pa.—Street lamps, brackets, posts, pendants, and lamp goods. P 48. 223

494 Miller, Edward, & Co., Meriden, Conn.—N 48.
a Bronze lamps and ornaments, lamp trimmings. 223
b Bronzes. 443

495 Hitchcock Lamp Co., Watertown, N. Y.—Lamps for animal, fish, or vegetable oils exclusively; no chimneys; burn twelve hours; fifteen car-candle power; odorless; smokeless; portable: for cars, shipping, factories, residences, etc. P 47. 223

496 Dreer, Smith, & Dreer, Philadelphia, Pa.—Berford gas-sunlight apparatus. P 47. 223

496*a* American Gas Screen Manufacturing Co., Haverhill, Mass.—Gas screens. (*West Gallery.*) 223

497 Atterbury & Co., Pittsburg, Pa.—Lamps. N 49 *to* 51. 223

498 Parkhurst, V. P., East Templeton, Mass.—Candle stand with flame regulator. P 47. 223

499 Williams, Page, & Co., Boston, Mass.—Railway and steamship lamps. P 47. 223

501 Mitchell, Vance, & Co., New York, N. Y.—Gas fixtures. N 49. 223

502 Ives Patent Lamp Co., New York, N. Y.—Kerosene lamps, brackets, chandeliers, and pendants, burners and attachments. P 47. 223

503 Stockwell Self-lighting Gas Burner Co., New York, N. Y.—Self-lighting gas burner. P 50. 223

504 Wiler, Wm., Philadelphia, Pa.—Taper holders, gas torches and keys, etc. N 71. 225

505 Cleveland Non-explosive Lamp Co., Cleveland, O., and 42 Barclay street, New York.—Perkins & House's patent metallic kerosene or coal oil safety lamps and filling cans. Thousands of families now using this lamp testify to its superiority; because, 1st, it is perfectly safe from explosion, owing to its scientific structure; 2d, it will not break, being made of metal; 3d, it is rendered perfectly clean by its patent drip-cup; 4th, it uses a very small amount of oil, in proportion to the light it gives, without odor; 5th, it gives a brilliant light, in consequence of its peculiar construction. Our filling can is perfectly safe from explosion, owing to its scientific structure—a flame cannot be communicated to the oil in it, either by accident or design. N 64. 223

506 American Calcium Light Co., Philadelphia, Pa.—Calcium light apparatus. T 43. 223

507 The Mains Manufacturing Co., New York, N. Y.—Lamps. N 65. 223

508 Doty, H. H., Washington, D. C.—Concentric mineral oil burner. N 50. 223

509 Lovell, F. H., & Co., New York, N. Y.—Kerosene burners, chimneys, wicks, lamps, etc. P 50. 223

510 United States Soapstone Manufacturing Co., Cincinnati, Ohio.—P 77.
a Lava gas tips. 223
b Soapstone griddles. 224

512 Cohansey Glass Manufacturing Co., Bridgeton, N. J.—Fruit jars. N 49. 224

513 Lowentrant, P., Newark, N. J.—House furnishing goods. N 70. 224

514*a* Jones, J. Alonzo, New York, N. Y.—Water cooler and refrigerator. N 43. 224

515 Lowerre & Tucker, Newark, N. J.—Fluting machines. N 71. 225

517 Lloyd, Supplee, & Walton, Philadelphia, Pa.—Fluting machines. P 70. 225

517*a* Blackie & Charles, St. Louis, Mo.—Anti-freezing hydrant. (*Missouri State Building.*) 226

517*b* Wheeler, Wm. F., Boston, Mass.—Disintecting devices. (*In use in Main Building.*) 226

518 Boughton, Jno. W., Philadelphia, Pa.—Wood carpet, parquet floors, and wainscots; adjustable window screens, and bars. T 56. 227

519 National Wood Manufacturing Co., 950 Broadway, New York, N. Y.—Wood carpeting, parquet and inlaid floors, ornamental hard-wood ceilings, fancy wainscoting, and stair coverings. Send 3 cent stamp for book of design. P 52. 227

519*a* Canopy Frame Co., Willimantic, Conn.—Portable folding canopy frames. P 56. 227

520 Johns, H. W., New York, N. Y.—Asbestos roofing, sheathing, and lining felts. P 47. 227

521 Ehret, M., jr., Office, 404 Walnut street, Philadelphia, Pa.—Pavilion situated south of Main Building, to exhibit patent fire and waterproof granulated slag (composition) roofing. State and county rights for sale. (*Outside.*) 227

521*a* Miller, J. Wesley, Philadelphia, Pa.—Plumbing of eight rooms in Main Building. 227

522 Marion Blind Co., Brady, Pa.—Improved window blinds. T 53. 227

522*a* Reisinger Manufacturing Co., Harrisburg, Pa.—Sash locks, line holders, clothes hooks, cellar hoists, broom and wisp holders. P 68. 227

523 Walker, M., & Sons, Philadelphia, Pa.—Heavy wrought iron gates at north, south, east, and west entrances of Main Exhibition Building. 227

523*a* Peck, Kennedy & Co., New York, N. Y. (*Outside.*)
a Flat floor, arch, and fire proof building material. 227
b Brick and tile machine. 517
c Radiator. 555

524 Fisher & Bird, New York, N. Y.—Marble mantels, tablet, marble wainscoting. The white marble mantel is of pure American statuary; the black one is of the finest quality of velvet black, both designed and executed in the highest style of art, at our works, by American artisans. T 50. 227

525 Geddes, J. W., Baltimore, Md.—Skylight over south aisle. 227

526 Evans, C. B., Mantel & Grate Co., Cincinnati, O.—Iron mantels. T 68. 227

527 Garry Iron Roofing Co., Cleveland, O.—Sections of corrugated iron roof. (*Ohio State Building.*) 227

528 American Sheet & Boiler-Plate Cleveland, O.—Corrugated roofing iron and iron roofing tile. (*Ohio State Building.*) 227

529 House & Davidson, Cleveland, O.—Pair front doors. (*Ohio State Building.*) 227

530 Dobbins, R. J., Philadelphia, Pa.—Construction of Main Exhibition Building. 227

531 Quigley, Philip, Wilmington, Del.—Construction of Machinery Hall. 227

Yarns and Woven Goods of Vegetable or Mineral Materials.

532 De Witt Wire Cloth Co., New York, N. Y.—Wire cord, rope, cloth, and work; dandy roll, cotton and wire fabrics. B 76. 228

533 Clinton Wire Cloth Co., Clinton, Mass.—Iron railing, wire cloth, netting, fencing, fire proof lath. T 68. 228

535 Woven Wire Mattress Co., Hartford, Conn.—Woven wire cloth used for a spring bed. P 53. 228

536 Wild, Jos., & Co., New York, N. Y.—Matting and mats of fibre of cocoanut husks. N 77. 229

537 Wakefield Rattan Co., Boston, Mass.—Mats and matting. T 57. 229

538 Irving Bros., Elwood, N. Y.—Japanese paper carpeting, waterproof building paper. N 75. 229

539 Garsed Bros., Frankford, Pa.—Awnings and tickings. N 73. 230

540 Farnum, John, & Co., Philadelphia, Pa.—Tickings from Conestoga steam mills, Lancaster, Pa. N 75. 230

540*a* Slater, Wm. S., Providence, R. I.—Bleached cotton goods. N 73. 230

541 Bailey, John T., & Co., Philadelphia, Pa.—Bags. B 68. 230

Woven Goods.

541a Westport Manufacturing Co., Fall River, Mass.—Carpet warp and cotton batts. D 78. 230

542 Thornton, Samuel, & Sons, Philadelphia, Pa.—Cotton fabrics. N 76. 230

542a Alabama & Georgia Manufacturing Co., West Point, Ga.—Sheeting. N 78. 230

543 Berkeley Co., Providence, R. I. —Nainsooks, Victoria lawns, and cambrics. These fabrics are noted for their quality and finish, and are manufactured from either Sea Island, Egyptian, or Peeler cotton. N 75. 230

543a Slater Cotton Co., Providence, R. I.—Brown and bleached cotton goods. D 78. 230

544 Clark Thread Co., Newark, N. J.—Spool cotton. N 76. 230

544a Sykes, Henry, Chicago, Ill.—Awnings and awning frames. Y 63. 230

545 Johnson, Emory, Neptune Twine Mills, Moodus, Conn.—Cotton seine twines, welting cords, carpet warp, and knitting cotton, manufactured from superior stock and always of a uniform quality. Established in 1832. B 68. 230

546 Whitfield, F. E., Sen., Corinth, Miss.—Cotton yarns. N 75. 230

547 Semple, Samuel, & Sons, Mt. Holly, N. J.—Spool cotton. Manufacturers of Stuart's "Best six cord" and "Soft Enameled" spool cotton. Stuart & Bro., sole agents, 13 Bank street, Philadelphia. N 74. 230

547a Lawrence, Waterbury, & Co., New York, N. Y.—Bagging. D 78. 230

548 Walcott & Campbell, New York Mills, Oneida county, N. Y.—Shirtings, wide sheetings, cottonades, and knitting yarns. N 75. 230

548a Lewiston Mills, Lewiston, Me.—Tickings, cottonades, cheviot shirtings, duckings, seamless cotton bags. R 78. 230

549 Westbrook Manufacturing Co., Portland, Me.—Ship's cotton duck. B 70. 230

549a Lawrence Manufacturing Co., Lowell, Mass.—Bleached and unbleached cotton goods. N 73. 230

550 Powhatan Mills, Providence, R. I.—"Pocahontas" and "Wealth of the Country" bleached and brown muslins, well adapted for family and shirt maker's use. N 74. 230

550a Merrick Thread Co., Holyoke, Mass.—Ready-wound bobbins for sewing machine shuttles. H 74. 230

551 Saratoga Victory Manufacturing Co., Boston, Mass.—Silesias, cambrics, and fancy cottons. F 73 *and* 74. 230

551a Cutler Manufacturing Co., Warren, R. I.—Hosiery, cops, yarns, carpet warp, knitting cotton. D 78. 230

552 Chicopee Manufacturing Company, Chicopee Falls, Mass.—Cotton flannels, bleached and brown. F 73 *and* 74. 230

552a Foustdale Manufacturing Co., Providence, R. I.—Bleached cotton goods. N 73. 230

553 Great Falls Manufacturing Company, Rockingham, N. C.—Rockingham sheeting. N 75. 230

554 Peckham Manufacturing Company, Providence, R. I.—Kentucky jeans. B 76. 230

555 Androscoggin Mills, Lewiston, Me.—Sheeting, shirting, jeans, bags, etc. R 78. 230

556 Hill Manufacturing Company, Lewiston, Me.—Bleached and unbleached sheetings and shirtings. R 78. 230

557 Continental Mills, Lewiston, Me. —Sheetings and shirtings. R 78. 230

558 Barker Mills, Auburn, Me.—Bleached and unbleached sheetings. R 78. 230

559 Smith, James Y., Manufacturing Co., Providence, R. I.—Bleached and brown cotton goods. N 74. 230

560 Evansville Cotton Manufacturing Co., Evansville, Md.—Brown sheetings and drills, assorted yarns. N 74 230

561 King Philip Mills, Fall River, Mass.—Brown and bleached sheetings, cambric muslins, and rolled jaconets. Selling agents, Whorton, Atkinson & Co., Philadelphia; Converse, Staunton & Co., Boston and New York; Turnbull, Sweet & Co., Baltimore N 76. 230

562 Hope Company, Providence, R. I. —Shirting. N 74. 230

563 Lonsdale Company, Providence, R. I.—Sheetings, cambric muslin, silesias, jaconets, Victoria lawns, sateens. N 74. 230

564 Blackstone Manufacturing Company, Providence, R. I.—Print cloths shirtings, umbrella cloths. N 74. 230

565 Gambrill, Sons & Co., Baltimore, Md.—Cotton duck for sails, tents, and awnings. D 78. 230

566 Wamsutta Mills, New Bedford, Mass.—Shirting and sheeting. N 74. 230

567 Shaw, James G., New Castle, Del.—Single-carded cotton warps. N 74. 230

568 Riddle, Jas., Son & Co., Wilmington, Del.—Brandywine Mills tickings. N 74. 230

569 Wauregan Mills, Wauregan, Conn.—Cotton goods. N 74. 230

570 Ponemah Mills, Taftville, Conn. —Plain and fancy cotton goods. N 74. 230

571 Gabriel, Henry, & Sons, Allentown, Pa.—Counterpanes, oed coverlets, quilts, and bed spreads. F 68. 230

572 Stafford & Co., Providence, R. I.—Cotton yarns, hosiery cops, twilled goods. N 76. 230

573 Minot, Hooper, & Co., Boston, Mass.—Bleached cotton goods. F 69. 230

575 Farwell Mills, Lisbon, Me.—Bleached and brown cottons. R 78. 230

576 Morse, Kaley, & Co., Milford, N. H. —Knitting cotton. E 78. 230

577 Putnam Manufacturing Co., Providence, R. I.—Colored cotton goods. N 73. 230

577a White, R. T., & Son, Philadelphia, Pa.—Rag carpet warps and cotton batts. D 78. 230

578 Clinton Manufacturing Co., Providence, R. I.—Bleached cotton goods. N 73. 230

Woven Goods.

579 **Bridge Mill Cotton Manufacturing Co.**, Providence, R. I.—Bleached cotton goods. N 73. 230

580 **Manville Co., Providence, R. I.**—Cotton goods, bleached and colored. N 73. 230

581 **Ross, John L., Providence, R. I.**—Bleached, unbleached, and colored cotton goods. N 73. 230

582 **Social Manufacturing Co.**, Providence, R. I.—Brown, bleached, and colored cotton goods. N 73. 230

583 **Warren Manufacturing Co.**, Warren, R. I.—Bleached and colored cotton goods. N 73. 230

584 **Peabody Mills, Providence, R. I.**—Colored cotton goods. N 73. 230

585 **Dyerville Manufacturing Co.**, Providence, R. I.—Brown and bleached cotton goods. N 73. 230

586 **Ballou, Geo. C., & Son**, Providence, R. I.—Brown, bleached, and colored cotton cloth. N 73. 230

587 **Silver Spring Bleaching & Dyeing Co.**, Providence, R. I.—Bleaching, dyeing, and finishing the various grades and styles of cotton cloth. N 73. 230

588 **Hooper, Wm. E., & Sons**, Baltimore, Md.—Awning stripes, cotton duck. D 78. 230

589 **Boston Manufacturing Co.**, Boston, Mass.—Cotton goods. B 76. 230

590 **Cabot Manufacturing Co.**, Boston, Mass.—Cotton goods. B 70. 230

591 **Gale & Co., Boston, Mass.**—Lawn and other tents, canopies, and clothes dryer. (*Outside.*) 230

592 **Greene & Daniels, Pawtucket, R. I.**—Ivory finish and six-cord spool cotton; gray, bleached, and dyed cotton yarns. N 76. 230

593 **Fall River Bleachery, Fall River, Mass.**—Bleached cottons, shirtings, and sheetings. N 76. 230

594 **Lowell Bleachery, Lowell, Mass.**—Bleached and colored cotton fabrics. N 73. 230

595 **Amoskeag Manufacturing Co.**, Manchester, N. H.—Tickings, denims, awning stripes, cotton flannels, ginghams, fancy shirtings, jeans, shirtings, sheetings, drillings. N 74. 230

596 **Naumkeag Steam Cotton Co.**, Salem, Mass.—Satteens, Pequot wide sheetings, bleached and unbleached, 5-4, 6-4, 7-4, 8-4, 9-4, 10-4; Naumkeag twilled sheetings, 8-4, 9-4, 10-4; Pequot, 36 inch and 40 inch; El Dorado, 36 and 40 inch sheetings. The product of these mills has a reputation for softness and durability, and for general excellence; the cotton used is especially selected with a view to securing these qualities, and the greatest care is used in their manufacture. N 74. 230

597 **Massachusetts Cotton Mills**, Lowell, Mass.—Sheetings, shirtings, drillings, etc. N 73. 230

598 **Tremont & Suffolk Mills, Lowell**, Mass.—Brown and bleached cotton flannels, twenty-six varieties, from the lightest to the heaviest grade, for summer, fall, and winter wear, from twenty-seven to thirty-six inches in width, superior in quality of material, grade, and finish; Suffolk drills, blued, brown and bleached. Sheetings, shirtings, and corset jeans. N 73. 230

599 **Appleton Co., Lowell, Mass.**—Unbleached sheetings and drillings. N 73. 230

600 **Boott Cotton Mills, Lowell, Mass.**—Brown and bleached cottons. N 73. 230

601 **Shroder, F., & Co., New York, N. Y.**—Brown cottons, drills, and nankeens. B 75. 230

602 **Nashua Manufacturing Co.**, Nashua, N. H.—Brown and bleached cottons, cotton flannels, printings. N 77. 230

603 **Jackson Co., Nashua, N. H.**—Heavy brown cottons. N 77. 230

604 **Ocean Mills, Nashua, N. H.**—Brown and bleached cottons. N 77. 230

605 **Shetucket Co., Norwich, Conn.**—Fancy stripes, denims, ducks, cheviots. N 77. 230

606 **Falls Co., Norwich, Conn.**—Cotton duck, fancy colored duck tickings. N 77. 230

607 **The Utica Steam Cotton Mills**, Utica, N. Y.—Very heavy and fine brown and bleached sheetings and shirtings, from one to three yards wide. N 74. 230

608 **Mount Vernon Co., Baltimore**, Md.—Duck and sail twine. Manufacturers of cotton sail duck, enameling duck, hose and belting duck, U. S. hammock, bag, and cot duck; machine apron, and a superior article of duck for paper-makers' felting; from seven to fifteen ounce army tent and awning duck, plain and in stripes; cotton canvas, from nine to one hundred and thirty inches wide; sail twine, all numbers. D 78. 230

609 **Hadley Co., Boston, Mass.**—Cotton yarns and warps, spool cottons, threads; harness and seine twines. N 75. 230

610 **Union Wadding Co., Providence**, R. I.—Cotton wadding, batting, and machinery waste. F 74. 230

611 **Smith, H. E., & Co., Providence**, R. I.—Cotton yarns for hosiery, shawl, and carpet manufacture. N 74. 230

612 **Richardson, C. D., & Co., Philadelphia**, Pa.—Tents. (*Outside.*) 230

613 **Hale, B. S., & Co., Lawrence**, Mass.—Fish lines. N 75. 230

614 **Laconia Company, Biddeford**, Me.—Sheetings, shirtings, drills, and jeans. R 78. 230

615 **Pepperill Manufacturing Co.**, Biddeford, Me.—Sheetings, shirtings, drills, and jeans. R 78. 230

616 **Otis Company, Palmer, Mass.**—Denims. N 75. 230

617 **Palmer Mills, Palmer, Mass.**—Dress goods. N 75. 230

617*a* **Trainer, D., & Sons, Linwood** Station, Pa.—Cotton yarns and tickings. C 78. 230

618 **Brinckerhoff, Turner, & Co., New York, N. Y.**—Duck, canvas, ravens, awning stripes, bags, twines, bunting. D 78. 230

619 **Washington Manufacturing Co.**, Gloucester, N. J.—Printing cloths, etc. N 75. 230

622 **Monadnock Mills, Claremont, N. H.**—Quilts, counterpanes, and wide sheetings. H 78 *and* N 74. 230

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp 27–45.

Woven Goods.

623 American Linen Co., Fall River, Mass.—Printing cloths. B 77. 230

624 Annawan Manufactory, Fall River, Mass.—Printing cloths. B 77. 230

625 Barnard Manufacturing Co., Fall River, Mass.—Printing cloths. B 77. 230

626 Border City Mills, Fall River, Mass.—Printing cloths. B 77. 230

627 Chace Mills, Fall River, Mass.—Printing cloths. B 77. 230

628 Flint Mills, Fall River, Mass.—Printing cloths. B 77. 230

629 Granite Mills, Fall River, Mass.—Printing cloths. B 77. 230

630 Mechanics Mills, Fall River, Mass.—Printing cloths. B 77. 230

631 Merchants Manufacturing Co., Fall River, Mass.—Printing cloths. B 77. 230

632 Metacomet Mills, Fall River, Mass.—Printing cloths. B 77. 230

633 Narragansett Mills, Fall River, Mass.—Printing cloths. B 77. 230

634 Osborn Mills, Fall River, Mass.—Printing cloths. B 77. 230

635 Richard Borden Manufacturing Co., Fall River, Mass.—Printing cloths. B 77. 230

636 Sagamore Mills, Fall River, Mass.—Printing cloths. B 77. 230

637 Shove Mills, Fall River, Mass.—Printing cloths. B 77. 230

638 Slade Mills, Fall River, Mass.—Printing cloths. B 77. 230

639 Stafford Mills, Fall River, Mass.—Printing cloths. B 77. 230

640 Tecumseh Mills, Fall River, Mass.—Printing cloths. B 77. 230

641 Troy Cotton and Woolen Manufactory, Fall River, Mass.—Printing cloths. B 77. 230

642 Wampanoag Mills, Fall River, Mass.—Printing cloths. B 77. 230

643 Weetamoe Mills, Fall River, Mass.—Printing cloths. B 77. 230

644 Dwight Manufacturing Co., Chicopee, Mass.—Brown and bleached sheetings and shirtings. F 69. 230

645 Lyman Mills, Holyoke, Mass.—Brown and bleached sheetings and shirtings, drills, lawns, cambrics, cotton flannels, etc. F 69. 230

646 Great Falls Manufacturing Co., Great Falls, N. H.—Bleached and brown sheetings and shirtings. F 69. 230

647 Schum, Philip, Lancaster, Pa.—Coverlets and counterpanes. Well known manufacturer of genuine Lancaster quilts, coverlets, counterpanes, carpets, cradle, bureau and tidy covers, stocking yarns, woolen carpet chains, etc. All kinds of dyeing done. These goods being all of my own manufacture, made of the very best of material, I guarantee them as represented and to give entire satisfaction in every respect. G 78. 230

647*a* Wood, Wm., & Co., Philadelphia, Pa.—Cottonades. B 77. 230

648 Methuen Mill, New York, N. Y.—Jute bagging. F 76. 230

649 Webster Mills, New York, N. Y.—Jute bagging. F 76. 230

650 Nevins Mill, New York, N. Y.—Jute bagging. F 76. 230

651 Mississippi Mills, Wesson, Miss.—Yarns, cotton, cottonades. F 76. 230

652 Bullock, George & James M., Conshohocken, O.—Cotton warp. F 75. 230

653 Wortendyke Manufacturing Co., Wortendyke, N. J.—Lamp wicks and cotton yarns N 75. 230

654 Moss Manufacturing Co., Westerly, R. I.—Shirtings. N 74. 230

655 Harris Manufacturing Co., Providence, R. I.—Bleached shirtings. The "Gem of the Spindle" exemplifies the limit of fineness consistent with durability. N 74. 230

656 Knight, B. B., & R., Providence, R. I.—Bleached cotton goods. N 75. 230

657 Glasgow Company, South Hadley Falls, Mass.—Ginghams, yarns. N 74. 230

658 Allendale Company, Providence, R. I.—Bleached shirtings and sheetings. N 74. 230

659 Groton Manufacturing Co., Philadelphia, Pa.—Bleached goods. N 74. 230

660 Franklin Manufacturing Co., Providence, R. I.—Bleached cottons. N 74. 230

662 Tucker, Carter, & Co., New York, N. Y.—Bagging. B 69. 230

663 Renfrew Manufacturing Co., South Adams, Mass.—B 75.
- *a* Cotton warps, skirtings. 230
- *b* Ginghams. 231
- *c* Cotton dress goods. 232

664 Gloucester Gingham Mills, Gloucester City, N. J.—N 76.
- *a* Cottonades, shirtings. 230
- *b* Ginghams, dress goods. 231

665 Langdon Manufacturing Co., Manchester, N. H.—Brown and bleached shirtings; fine brown and bleached G. B. shirtings. N 74. 230

666 Whittenton Manufacturing Co., Taunton, Mass.—N 76.
- *a* Cottonades, shirtings, tickings, denims, and awnings. 230
- *b* Dress goods and fancy checks. 231

667 York Manufacturing Co., Saco, Me.—Geo. C. Richardson & Co., selling agents, Boston and New York. N 74.
- *a* Cottonades light and heavy, ticking 28 inches by 32 inches wide, denims plain, striped, and plaid; shirtings and skirtings. 230
- *b* Dress goods, in great variety; nankins, and seersuckers. 231

668 Everett Mills, Lawrence, Mass.—B 73.
- *a* Fancy cottons, cottonades, ticking, denims, cheviot. 230
- *b* Stripes, ginghams, dress goods. 231

669 Davoll Mills, Fall River, Mass.—Selling agents, Wharton, Atkinson & Co., Philadelphia; E. C. Whitman, New York. N 76.
- *a* Sheetings, pillow muslins, shirtings, silesias. 230
- *b* Fancy cotton fabrics. 232

Woven Goods, Felting, Yarn.

670 Hamilton Manufacturing Co., Lowell, Mass.—N 73.
a Tickings, drillings, and canton flannels. 230
b Printed and dyed calicoes, shirting and awning stripes. 232

671 Holt, R., Paterson, N. J.—N 74.
a Cotton and Turkish towels, terry cloth, dusters, etc. 230
b Linen towels. 233

672 Stark Mills, Manchester, N. H. —N 74.
a Seamless bags, sheetings, and drills, overall and double ducks. 230
b Linen crash toweling. 233

673 Millville Manufacturing Co., R. D. Wood & Sons, Philadelphia and New York, sole agents.—F 75.
a Bleached shirtings, cambrics, silesias. 230
b Printed linings, umbrella cloths, vellums. 231
c Window hollands, tillottings, etc. 233

674 Bates Manufacturing Co., Lewiston, Me.—R 78.
a Shirtings, skirtings, quilts, jeans, towels, knitting cotton, etc. 230
b Ginghams, damask, silesias. 232
c Linen checks. 233

675 Ripka & Elton Mills, Philadelphia, Pa.—Cotton manufactures. N 74. 231

676 Lancaster Mills, Clinton, Mass. —Fancy ginghams. N 77. 231

677 Belfast Mills, Philadelphia, Pa.—Ginghams. N 76. 231

678 Albion Print Works, Conshohocken, Pa.—Solid colors suitings, plain blacks, grays, mourning prints, shirtings, and printed articles for men. N 73. 232

678*a* Pacific Mills, Lawrence, Mass.—B 73.
a Calicoes. 232
b Lawns, percales. 233

679 Hartel, Andreas, & Co., Pennypack Print Works, Philadelphia, Pa.—Madder and fancy prints and shirtings. N 75. 232

680 Brown, David S., & Co., Philadelphia, Pa.—Madder fancies, shirtings and mournings from Gloucester Manufacturing Co., Gloucester, N. J.; aniline, alezarine, oil, and madder colors and shirtings from Ancona Printing Co., Gloucester, N. J. N 77. 232

681 Simpson, Wm., & Sons, 126 Chestnut street, Philadelphia, Pa.—Calico prints in mourning, fancy, and shirting styles. Manufacturers and calico printers of the popular alpaca finish, solid blacks, Berlin solids of all colors, aniline blacks, mourning prints, silver grays, Eddystone chocolates, hair cloth cheviots, and fancy prints. These styles are all fast colors, and are printed exclusively on the best extra 64 square cloth. N 75. 232

682 Pretty, Grime, & Co., Philadelphia, Pa.—Calico prints. N 74. 232

683 Green, S. H., & Sons, Clyde Bleachery and Print Works, River Point, R. I.—Printed calicoes. N 74. 232

684 Richmond Manufacturing Co., Providence, R. I.—Printed calicoes. N 75. 232

685 Manchester Mills, Manchester, N. H.—Prints. N 73. 232

686 American Print Works, Fall River, Mass.—Printed calicoes, percales, cambrics, shirtings, indigo blues, greens, robes, seersuckers, etc. Special styles and colorings printed for export. N 75. 232

687 Hamilton Woolen Co., Southbridge, Mass.—Prints, shirting prints, printed cambrics. N 74. 232

688 Merrimac Mills, Lowell, Mass.—Printed and dyed calicoes. N 73. 232

689 Stevens Linen Works, New York, N. Y.—Plain and twilled linen crashes and diapers. B 75. 233

690 Barbour Flax Spinning Co., Paterson, N. J.—Flax threads. N 76. 233

690*a* American Linen Thread Co., Mechanicville, Saratoga county, N. Y.—Flax, gilling, and machine threads, warp, filling, and twines. Manufacturers of patent linen thread (on spools and in skeins) of all kinds, numbers, and colors; also, gilling thread, of all numbers; machine, shoe, carpet, fringe, whip, and McKay threads, in all varieties; linen floss, selvage, and hose warp; hose filling, broom and brush twines; pink and variegated twines; loom cord; line and tow yarns. All manufactured from the best foreign stock. H 75. 233

691 McCrossan & Farr, New York, N. Y.—Printed linen and cotton, and white cotton handkerchiefs. N 76. 233

692 American Linoleum Manufacturing Co., New York, N. Y.—Linoleum floor cloth. N 77. 234

694 Blabon, Geo. W., & Co., Philadelphia, Pa.—Floor, carriage, upholstery, and table oil cloths and window shades. N 77. 234

696 Virolet & Durlach, Elizabeth, N. J.—Floor oil cloths. F 73. 234

698 Potter, Thos., Sons & Co., Philadelphia, Pa.—Oil cloths. N 77. 234

700 Brasher, Wm. M., & Co., Brooklyn, N. Y.—Floor oil cloths. F 71. 234

701 Reeve, R. H. & B. C., Camden, N. J.—Oil cloths. F 71. 234

702 Powers, D., & Sons, New York, N. Y.—Floor oil cloths. F 77 234

Woven and Felted Goods of Wool and Mixture of Wool.

703 Shaffner & Stringfellow, Philadelphia, Pa.—Knitting cotton and Germantown wool. B 75. 235

703*a* Knox Woolen Co., Camden, Me.—Paper makers' feltings and machinery cloths. R 78. 235

704 Bacon, Chas. N., Winchester, Mass.—Felts for polishing, printing, erasing, etc.; cotton and wool wadding. N 74. 235

705 New England Co., Rockville, Conn.—Fine fancy cassimeres, finest wool, fine spinning, indigo colors. The first mill in America to make fancy cassimeres. B 76. 235

705*a* Noske, Henry, Philadelphia, Pa. —Woolen felts. F 72. 235

706 Philadelphia Worsted Spinners' Association, Philadelphia, Pa.—Worsted yarns. F 75. 235

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Woven and Felted Goods.

707 Midnight Yarn Co., Philadelphia, Pa.—Woolen knitting and Germantown yarns, representing process of manufacture. B 77. 235

708 Thornton, Samuel, & Sons, Philadelphia, Pa.—Woolen fabrics. N 76. 235

709 Philips, James, jr., Fitchburg, Mass.—Fine worsted coatings and suitings Hunt, Catlin, & Valentine, sole agents, 107–113 Franklin street, New York, N. Y. B 77. 235

709*a* Kirkman, James, Chester, Pa.—Doeskins. B 78. 235

710 Ledward, J., & Son, Chester, Delaware county, Pa.—Cassimeres and doeskins. B 76. 235

711 Horstmann, Wm. H., & Sons, Philadelphia, Pa.—Woolen knitting yarns. These goods are known generally as Germantown, balmoral, cashmere, saxonia, and stocking yarns. They are particularly noted for brilliancy of colors, variety of shades, evenness of thread, and the low prices at which they are sold. H 73. 235

712 Globe Woolen Co., New York, N. Y.—Fancy cassimeres. F 74. 235

713 Dryfoos, L., & Co., New York, N. Y.—Felt skirts, embroidered and braided; Italian cloth skirts, trimmed and quilted. B 77. 235

713*a* Kent Woolen Co., Centreville, R. I.—Cassimeres. B 74. 235

713*b* Stillwater Woolen Mills, Still-water, R. I.—Cassimeres. B 74. 235

714 Worumbo Manufacturing Co., Lisbon Falls, Me.—Moscow beaver and other overcoatings. R 78. 235

715 Bel Air Manufacturing Co., Pitts-field, Mass.—Fancy all-wool cassimeres. F 73. 235

716 Burlington Woolen Co., Wi-nooski Fall, Vt.—Woolens, castorines, moscows, kerseys, broadcloths, doeskins, elastic doeskins, elysians. F 73 *and* 74. 235

717 Broad Brook Co., Broad Brook, Conn.—Fancy cassimeres. F 75. 235

718 Weybosset Mills, Providence, R. I. —Fancy cassimeres. Samples of regular production made for the general market. Wendell Hutchinson & Co., New York, selling agents. F 74. 235

719 Howard, R., & Son, Apponang, R. I.—Woolen stocking yarns, fancy and plain colors. B 75. 235

719*a* State of Oregon (by A. J. Dufur). —Woolen fabrics. H 71. 235

720 Wanskuck Co., Providence, R. I. —Worsted coatings, overcoatings, kerseys. B 75. 235

721 Rodman, Robt., La Fayette, R. I. —Doeskins. N 75. 235

722 Sawyer Woolen Mills, Dover, N. H.—Silk and wool cassimeres, fancy cassimeres, double and twist cassimeres. F 75. 235

722*a* Clinton Mills Co., Norwich, Conn. —B 74.
- *a* Tweeds and repellents. 235
- *b* Blankets. 237

723 Hinsdale Bros., Hinsdale, Mass. —Kerseys, beavers, worsted suitings, etc. B 74. 235

724 Rockville Manufacturing Co., Rockville, Conn.—Fancy cassimeres and worsteds. B 74. 235

725 Hockanum Co., Rockville, Conn. —Fancy cassimeres and worsteds. B 74. 235

727 Eddy's, Jesse, Sons, Fall River, Mass.—Woolens for men's wear. F 74. 235

728 U. S. Bunting Co. Lowell, Mass —Bunting, flags, worsted damasks and morcens, skirtings, and dress buntines. H 76. 235

729 Middlesex Co., Lowell, Mass.— Woolen goods. B 77. 235

729*a* Shuler & Benninghofen, Hamil-ton, O.—Felts for paper-makers. B 76. 235

729*b* Uxbridge Woolen Co., Uxbridge, Mass.—Cassimeres. B 74. 235

730 Germania Mills, Holyoke, Mass. —Eskimos, doeskins, and fur beavers, overcoatings. C 78. 235

731 Norway Plains Co., Rochester, N. H.—Blankets. B 73. 235

732 Norwich Woolen Co., Norwich, Conn.—Blankets and repellents. B 73. 235

733 Union Manufacturing Co., Wol-cottville, Conn.—Black doeskins. B 73. 235

734 Meriden Woolen Co., West Meri-den, Conn.—Fancy cotton warp cassimeres and coatings. B 73. 235

734*a* Baltic Woolen Mills, Philadel-phia, Pa.—Woolen goods. F 72. 235

735 Niantic Woolen Mills, Norwich, Conn.—Suitings and repellents. B 73. 235

736 Mason, C. F., & Co., Providence, R. I.—Fancy cassimeres. B 76. 235

737 Wood, Morrell, & Co., Woodvale Woolen Mills, Johnstown, Pa.—Cassimeres made from half-blood wool. B 77. 235

738 Kirkman, James, Chester, Pa.—Doeskins. B 78. 235

740 Peirce, C. W. & J., Bristol, Pa. —G 78.
- *a* Polishing felts and crumb cloths. 235
- *b* Skirts. 238

741 Mississippi Mills, Wesson, Miss. —Wool fillings, jeans, cassimeres, tweeds, linseys. F 76. 235

742 Bullock, Geo. & Jas. M., Consho-hocken Woolen Mills, Conshohocken, Pa. —Doeskins, moscows, beavers, cloth. F 75. 235

743 Fox, Henry, & Co., Urbana, O.— D 78.
- *a* Cassimeres, tweeds, satinets, and yarns. 235
- *b* Flannels. 236

744 Belfast Mills, Philadelphia, Pa. —N 76.
- *a* Cheviots. 235
- *b* Dress goods. 238

745 Roy, Jas., & Co., West Troy, N. Y.—F 77.
- *a* Suitings and yarns. 235
- *b* Woolen shawls. 237

746 Fay, C. J., Camden, N. J.— F 74.
- *a* Felt roofing and siding. 235
- *b* Ceiling and floor carpeting. 236

Woven Goods.

747 McKee, Jos. D., Penn Knitting Mills, Philadelphia, Pa.—N 74.
a Cloths, fancy woolen goods. 235
b Worsted shawls. 237

748 Bates Manufacturing Co., Lewiston, Me.—R 78.
a Beavers and repellents. 235
b Dress goods. 238

749 Lippitt Woolen Co., Providence, R. I.—B 73.
a Elysian beaver overcoatings, fancy cassimeres, and suitings. 235
b Flannels. 236

750 Peace Dale Manufacturing Co., Peace Dale, R. I.—F 77.
a Cassimeres, coatings, lastings, etc. 235
b Woolen shawls. 237

751 Schofield, Seville, Philadelphia, Pa.—B 74.
a Piece goods and coatings. 235
b Blankets. 237

752 Camden Woolen Mills, Philadelphia, Pa.—B 76.
a Woolen goods, cassimeres, suitings, cloakings, repellents. 235
b Plaid opera flannels. 236
c Dress goods, etc. 238

753 Piqua Woolen Mills, F. Gray, O'Ferrall & Co., Piqua, O.—B 75.
a Paper-makers' fourdrinier and cylinder wet and press felts and jackets, for all kinds of paper. All felts warranted. 235
b Flannels. 236
c Blankets. 237

754 Washington Mills, Lawrence, Mass.—F 73 *and* 74.
a Worsted coatings, cloakings, and repellents. 235
b Flannels. 236
c Worsted goods, shawls, and dress goods. 238

755 Landenberger's, Martin, Sons, Philadelphia, Pa.—F 67.
a Worsted coatings and yarns. 235
b Shawls. 237
c Dress goods. 238

756 Dobson, Jno. & Jas., Philadelphia, Pa.—H 77.
a Cloths. 235
b Blankets. 237
c Carpets. 239

757 Steffan, F., & Co., Philadelphia, Pa.—H 76.
a Coatings. 235
b Shawls. 237
c Worsted dress goods. 238

758 Pontoosuc Woolen Manufacturing Co., Pittsfield, Mass.—F 76.
a All-wool cloths and repellents. 235
b Sleeping car blankets and summer dusters. 237
c Dress goods. 238
d Carriage rugs. 239

759 Belvidere Woolen Manufacturing Co.—Flannels. F 74. 236

761 Ballard Vale Mills, New York, N. Y.—Fine white flannels. B 77. 236

762 Waumbeek Co., New York, N. Y.—Plain white flannels. B 77. 236

763 Norway Plains Co., New York, N. Y.—Plain white flannels. B 77. 236

764 Lucas, B., & Co., New York, N. Y.—Plain white domets and Shakers. B 77. 236

765 Groveland Mills, New York, N. Y.—Scarlet, yellow, and blue plain flannels, scarlet and blue twilled flannels, scarlet Shaker opera flannels. B 77. 236

766 Columbia Spring Co., New York, N. Y.—Fancy flannels. B 77. 236

767 Stott, C. H. & F. H., New York, N. Y.—Mixed twilled flannel. B 77. 236

768 Titus, E., & Sons, New York, N. Y.—White and Shaker flannels. B 77. 236

770 Gilbert, Geo. H., Manufacturing Co., Ware, Mass.—F 72.
a Flannels—white, opera, silk warp, plaid, moleskin, swansdown, gauze, medicated, etc. 236
b Blankets. 237

771 Bachman, S., New York, N. Y.—Shawls. B 75. 237

771*a* Sandford Mills, Sandford, Me.—Carriage robes. R 78. 237

772 Gibson & Tyler, New York, N. Y.—Fine white blankets. B 77. 237

772*a* Bloodgood, Mrs. I. S., New York, N. Y.—Embroidered afghans. N 52. 237

773 Waterloo Woolen Manufacturing Co., Waterloo, N. Y.—Woolen shawls. B 77. 237

773*a* Bishop & Northrup, Wyandotte, Mich.—Woolen robes, mats, and dusters. F 71. 237

774 Mission Woolen Mills, San Francisco, Cal.—B 75.
a Blankets. 237
b Woolen fabrics. 238

775 Arlington Mills, Lawrence, Mass.—Black alpacas, in ten qualities; black mohair brilliantines, in five qualities; figured mohair brilliantines, in two qualities; and roubaix poplins, in assorted colors. The black alpacas and mohair brilliantines are "warp dyed," and are made from the choicest materials, in the most thorough manner. Especial attention is invited to the softness of finish, brilliancy of color and lustre, uniformity and perfection of manufacture. The roubaix poplin is a "yarn dyed" fabric,—not dyed in the piece,—consequently, the strength of the fibre is preserved, and the color made more permanent than if "piece-dyed." The peculiarity of the finish is such that the goods will not cockle. F 77. 238

775*a* Pacific Mills, Lawrence, Mass.—Poplins, alpacas, serges, cashmeres, reps, jacquards, cretonnes, jaconets, and crêpe. B 73. 238

776 Peckham Manufacturing Co., Providence, R. I.—Woolen and merino knitting yarns, tweeds, doeskins. B 76. 238

777 Manchester Mills, Manchester, N. H.—Worsted dress goods. N 73. 238

778 Turner, John, Norwich, Conn.—Dyed and printed worsted, woolen, and cotton yarns, for weaving, knitting, etc. B 77. 238

779 Tunxis Mills, Poquonnock, Conn.—White and colored worsted yarns; process of manufacture from raw wool. B 76. 238

780 Farr Alpaca Co., New York, N. Y.—Alpacas, serges, cashmeres, fancy linings. B 74. 238

781 Hamilton Woolen Co., Southbridge, Mass.—Delaines, reps. N 74. 238

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Woven Goods, Carpets, Silk.

782 Wood, Wm., & Co., Philadelphia, Pa.—Wool mixture suitings. B 77. 238

782*a* Chapman & Bros., Belfast, Me.— Dry goods. N 76. 238

783 Walshaw, Wm., Saxonville, Mass.—Colored wool and yarns. F 69. 238

783*a* White, Payson & Co., Boston, Mass.—Cotton and worsted textile fabrics. N 73. 238

784 Lowell Manufacturing Co., Bos-ton, Mass.—F 77.
a Serges and lastings. 238
b Wilton and Brussels, two and three ply ingrain carpeting. 239

785 Blake, C. H. & F. D., New York, N. Y.—Alpacas, mohairs, cashmeres, and worsted serges. B 75. 238

786 Wood & Haslam, Camden, N. J. —B 77.
a Turkey red yarn. 238
b Quilts, table cloths. 241

787 Smith, Alex., & Sons Carpet Co., Yonkers, N. Y.—Power loom, Axminster, tapestry Brussels, and tapestry ingrain carpetings. F *and* H 73 *to* 76. 239

787*a* McCallum, Crease, & Sloan, Phil-adelphia, Pa.—Ingrain carpets. H 75. 239

788 Wentworth, C. B., & Co., Boston, Mass.—Star-quilted carpet lining. F 75. 239

788*a* Hutchison, J. & H., Brooklyn, N. Y.—Rugs and mats. O 78. 239

789 Gibb & Co., Philadelphia, Pa.— Rag carpet. F 77. 239

789*a* Seffarlen & Fritz, Philadelphia, Pa.—Carpet warps. F 77. 239

790 Dornam, Bros. & Co., Philadel-phia, Pa.—Ingrain carpets and damask. F 77. 239

790*a* Mayall, Miles, Boston, Mass.— Carpet linings and stair pads. D 78. 239

791 Bromley, Jno., & Sons, Philadel-phia, Pa.—Ingrain and damask Venetian carpets. H 77. 239

791*a* Bailey, Edw. H., New York, N. Y. —Carpet lining and stair pads. E 78. 239

792 Leedom, Shaw, & Stewart, Phila-delphia, Pa.—Carpetings. F 77. 239

792*a* Lewis, Willard, Walpole, Mass. —Carpet lining. D 78. 239

793 Chipman, Geo. W., & Co., Boston, Mass.—Carpet lining and stair pads. F 75. 239

794 Taylor, Jas., & Muller, S. N., Newark, Del.—Rag and rug carpet. F 74. 239

795 Hartford Carpet Co., Hartford, Conn.—Brussels and three and two ply ingrain carpeting. F *and* H 73 *to* 76. 239

796 Wagan, R. M., Mount Lebanon, N. Y.—The Shakers' plush floor rugs. P 52. 239

797 Ivins, Dietz, & Magee, Philadel-phia, Pa.—Three and two ply ingrain carpets. H 75. 239

798 Bigelow Carpet Co., Clinton, Mass.—Jacquard Brussels and Wilton carpets, rugs and mats. F *and* H 73 *to* 76. 239

799 Lowell Carpet Co., Boston, Mass. —Wilton and Brussels, two and three ply ingrain carpeting. F *and* H 73 *to* 76. 239

800 Roxbury Carpet Co., Boston, Mass.—Tapestry carpeting. F *and* H 73 *to* 76. 239

801 Read Carpet Co., Bridgeport, Conn.—Two ply ingrain carpets. H 77. 239

802 Farrington & Kinsey, Rahway, N. J.—Wool extracted from rags. B 76. 240

803 Pawtucket Hair Cloth Co., Paw-tucket, R. I.—Automatically woven hair cloths for upholstery. B 74. 240

Silk and Silk Fabrics, and Mixtures in which Silk is the predominating Material.

804 Belding Bros. & Co., Rockville, Conn.—H 74.
a Twisted silk in gum, raw silk, cocoons. 242
b Machine twists; sewings, embroidery, and saddlers' silks; buttonhole twist. 243

805 Aub, Hackenburg, & Co., Philadel-phia, Pa.—H 76.
a Raw silk and cocoons. 242
b Machine and buttonhole twist, sewing and spool silk. 243

806 Franke, Louis, New York, N. Y. —H 74.
a Thrown silk. 242
b Silk fringes, passementerie, braids, cords, tassels. 249

806*a* Boissiere, E. V. de, Williamsburg, Kansas.—H 74.
a Silk cocoons, raw silk, and silk-worm eggs, produced in Kansas. 242
b Velvet ribbons. 248

807 Hamil & Booth, Paterson, N. J. —H 76.
a Raw and thrown silks. 242
b Dress goods, tie silks. 245
c Ties. 247
d Ribbons. 248

808 Seavey, Foster, & Bowman, Boston, Mass.—H 75.
a Cocoons, raw silk. 242
b Twisted silk. 243

808*a* Newmann, Joseph, San Francisco, Cal.—H 75.
a Cocoons, raw silk, silk-worm eggs. 242
b Silk flags. 247

809 Werner, Itschner, & Co., Phila-delphia, Pa.—Silk ribbon fabrics. H 74. 243

810 Brainerd, Armstrong, & Co., offices, 469 Broadway, New York; 301 Market street, Philadelphia; 13 German street, Baltimore.—Spool and skein silks, for families, merchant tailors clothing manufacturers, and shoe manufacturers. Handsome cabinets furnished to retailers. Having no western or southern office, we will make liberal arrangements with dealers, or responsible parties wishing to act as agents for those sections. H 75. 243

811 Hovey, F. S., Philadelphia, Pa.— Sewing silks and machine twists. H 76. 243

812 Morel, Chas., & Sons, Philadelphia, Pa.—Skein silks, dyed. H 76. 243

Silk, Clothing.

813 Cheney Brothers, Hartford and South Manchester, Conn.—H 75.
a Twist. 243
b Spun silks and spun silk fabrics. 244
c Dress goods, serges, florentines, and foulards. 245
d Organzine, tram, and handkerchiefs. 247
e Ribbons. 248

814 Atwood & Richmond, Brooklyn, Conn.—Ounce silk machine twist, black and colors. H 77. 243

815 Nonotuck Silk Co., Florence, Mass.—Black and colored machine twist, buttonhole twist, embroidery and sewing silk. H 74. 243

816 Hayden, J. H., & Son, Windsor Locks, Conn.—Black sewing silk. H 76. 243

817 Heminway, M., & Sons Silk Co., New York, N. Y.—Spool, embroidery, and saddlers' silk; machine and buttonhole twist, etc. H 73. 243

818 Holland Manufacturing Co., Willimantic, Conn.—Silk machine twist and sewing silk. H 74. 243

819 Baare, Fred., Paterson, N. J.—Millinery, tie, and umbrella silks. H 77. 244

820 Strange, Wm., & Co., Paterson, N. J.—H 73.
a Millinery and dress silks. 245
b Ribbons. 248

821 Dexter, Lambert, & Co., New York, N. Y.—H 73.
a Silk piece goods. 245
b Ribbons. 248
c Dress trimmings. 249

823 Wright, Wm. P., Philadelphia, Pa.—Oiled silks and muslins. H 76. 245

825 Weidmann & Greppo, Paterson, N. J.—Dyed silk, blacks and colors. H 76. 246

826 American Silk Label Manfacturing Co., 389 Broome street, New York, N. Y.—Names of signers of Declaration of Independence, labels, and other designs, woven in silk; for clothiers, merchant tailors, and hatters. H 77. 246

827 Meyenberg, S. M., Paterson, N. J. Office, 40 Lispenard street, New York.—N 74.
a Upholstery satins. 246
b Ladies' silk scarfs, sewing silk veils; millinery silks and gauze fabrics. 247

828 Stearns, Jno. N., & Co., New York, N. Y.—H 77.
a Brocade silks. 246
b Silk handkerchiefs. 247

829 New York Woven Label Manufacturing Co., New York, N. Y.—Woven labels and hangers. H 74. 247

831 Horstmann, W. H., & Sons, Philadelphia, Pa.—Dress, carriage, upholstery, and undertakers' trimmings; narrow textile fabrics; passementerie. H 73. 249

832 Kohn, Tobias, Novelty Weaving and Braiding Works, Hartford, Conn.—Star and embroidery braids. H 76. 249

833 Dale Manufacturing Co., Paterson, N. J.—Silk, mohair, and fancy trimming braids; cords, bindings, hat bands, braided sewings, and watch guards. H 75. 249

835 Fleisher, S. B. & M., Philadelphia, Pa.—Alpaca braids. F 71. 249

836 Sutro Bros., New York, N. Y.—Embroidery braids, put up on patent cards, stating correctly the measurement of each skein. F 71. 249

837 Nottingham Lace Works, Brooklyn, N. Y.—Guipure, thread, cashmere, and other laces and trimmings; hair nets. Manufacturers from original designs of guipure laces, thread, cashmere, Spanish and millinery laces, silk purlings, lace fringes, hair nets, etc.; also, a specialty of all desirable styles of silk lace ties and scarfs. Orders sent to A. G. Jennings, 428 Broome street, New York. H 75. 249

838 Turner, John, Norwich, Conn.—Picture and furniture cords. B 77. 249

839 Goff, D., & Son, Pawtucket, R. I.—Alpaca skirt braid. F 71. 249

840 Silver Lake Co., Boston, Mass.—Solid braided cords. F 68. 249

841 Kelty, G. L., & Co., New York, N. Y.—Furniture coverings, gimps, fringes, cords, tassels, and other upholstery goods. C 78. 249

Clothing, Jewelry, and Ornaments, Traveling Equipments.

842 Häpke, A. B., Harrisburg, Pa.—Knit goods and embroideries. F 69. 250

842*a* Lowery & Williams, Utica, N. Y.—Merino and cotton underwear. F 73. 250

843 Moore, Leopold, Philadelphia, Pa.—B 69.
a Wrappers, shirts. 250
b Silk hats. 251

843*a* Munson Manufacturing Co., Cohoes, N. Y.—Merino and cotton underwear. F 73. 250

844 Sachse, F., & Son, S. E. corner Eighth and Vine streets, Philadelphia, Pa.—Finest American dress shirts; also, cricket, club, fire, base-ball, yachting, and society shirts. F 69. 250

844*a* Meyer, Jonasson, & Co., New York, N. Y.—Felt skirts. F 78. 250

845 Butterick, E., & Co., New York, N. Y.—Paper patterns for ladies' and children's garments. H 70. 250

846 Maize & Schwartz, Philadelphia, Pa.—Military uniforms. C 78. 250

847 Chapman, Mrs. Dr. H. M., 219 South Eighth, and 336 South Fifth street, Philadelphia, Pa.—Patent skirt supporting, shoulder brace, puff corset. Requires no padding; allows the form its natural shape without pressure. F 69. 250

847*a* Wyoming Valley Knitting Co., Pittston, Pa.—Hosiery and underwear. F 73. 250

848 Cooper, Henry Prouse, New York, N. Y.—Clothing. F 72. 250

849 Schuyler, Hartley, & Graham, New York, N. Y.—Military and naval equipments, society and theatrical goods. F 70. 250

849*a* Moeller, C. H., St. Louis, Mo.—Netted underwear. F 71. 250

850 Glazier, J. J., Bro. & Co., Philadelphia, Pa.—Brown, bleached, and colored hose and half hose. F 72. 250

850*a* Fall River Merino Co., Fall River, Mass.—Ladies' and men's underwear. F 73. 250

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Clothing, Ornaments.

851 Judson Bros., New York, N. Y.—Shirts, underwear, drawers. F 70. 250

851*a* Weldon, Dana, & Co., San Francisco, Cal.—Stocking supporters, ladies' belts, etc. F 71. 250

852 Thalheimer & Hirsch, Philadelphia, Pa.—Gentlemen's white and fancy shirts, underwear, collars, and cuffs. F 61. 250

852*a* Dudley Hosiery Co., Newton Lower Falls, Mass.—Knit underwear, hosiery. F 73. 250

853 Michaelis & Kaskel, 653 Broadway, New York, N. Y.—Shirts, underwear, and pjamas; anti-rheumatic flannels, and embroideries. Manufacturers of the finest dress shirts and underwear, to order only; embroiderers, and importers of gentlemen's furnishing goods; depot for Dent's London-made kid gloves, Cartwright and Warner's merino underwear, and Martin's umbrellas; sole agents in the United States for Lairitz's celebrated anti-rheumatic flannels and medicinal preparations. Office, during the exhibition, at the Transcontinental Hotel, opposite the Main Building. F 67. 250

853*a* Leighton, Chas., New Orleans, La.—Shirt. F 71. 250

854 Harvey & Baird, Philadelphia, Pa.—Shirts. F 72. 250

854*a* Eager, P. B., Tower, & Co., Boston, Mass.—C 78.
a Oiled clothing. 250
b Oiled hats. 251

855 Griswold, Catherine A., New York, N. Y.—Corsets. F 69. 250

856 Devlin & Co., Clothiers, Broadway, corner Grand street; Broadway, corner Warren street, New York, N. Y.—Military uniforms, for army, navy, and national guard; gentlemen's dress and business suits; duck vests, robes-de-chambre, breakfast jackets, and shirts; also, boys' and youths' clothing. F 67. 250

856*a* Hemple, J. C., Baltimore, Md.—Rubber cloth diaper. F 72. 250

857 Prindle, G. H., Philadelphia, Pa.—Muffs and boas, caps, cloaks, afghans, capes, hoods, designs for bed spreads. F 70. 250

857*a* Thudium, C. A., & Son, Philadelphia, Pa.—Woolen and worsted cardigan jackets. B 79. 250

858 Moore, George, New York, N. Y.—Bias and bias neck cutter. H 71. 250

858*a* Bishop & Northrup, Wyandotte, Mich.—Wool dusters. F 71. 250

859 Thomas, A. W., Philadelphia, Pa.—Bustle, skirt elevator, bosom form. F 70. 250

859*a* Jacobs. Strouse, & Co., New York, N. Y.—Corset clasps and busks. T 60. 250

860 Rosenbach & Co., Philadelphia, Pa.—Shirts, pantaloons, overalls, drawers. F 68. 250

860*a* Schoenhof, J., & Co., New York, N. Y.—Skirts in embossed and trimmed effects. F 70. 250

861 Conrad Bros., Philadelphia, Pa.—Shirts, collars, cuffs, etc. F 67. 250

862 National Suspender Co., New York, N. Y.—Shoulder braces and suspenders. F 68. 250

862*a* Oliver, Thomas, New York, N. Y.—Transfer for measuring and cutting coats. P 68. 250

863 Cohn, M., & Co., Novelty Corset Works, New York, N.Y.—Woven corsets. F 69. 250

864 Piqua Woolen Mills, Piqua, O.—Jackets and woolen socks. B 75. 250

865 Taylor, S. T., New York, N. Y.—System of dressmaking, bias cutter, fashion journals F 71. 250

866 Hopkins, W. T., Philadelphia, Pa.—Ladies' and children's undergarments, infants' dresses, hoop skirts, corsets, panniers, bustles. F 69. 250

867 Horstmann, Wm. H., & Sons, Philadelphia, Pa.—Military and theatrical goods. Military, society, regalia, church, and theatrical goods; flags, banners, bunting, army, navy, national guard, and band equipments, in great variety; regalia, jewels, and properties for Masonic Blue lodges, chapters, commanderies, Scottish Rite, and other societies; Knights Templar uniforms a specialty. A full line of materials and trimmings suited to all the above lines. H 73. 250

868 Demorest, Mme., New York, N. Y.—Fashion patterns and bulletin, dress-cutting system, corsets, shoulder brace, skirt and stocking suspenders. F 68. 250

869 Nashawannuch Manufacturing Co., Easthampton, Mass.; factories, Easthampton, Mass.; salesrooms, 74 and 76 Worth street, New York.—Elastic rubber suspenders and webs. Manufacturers of elastic suspenders, frills, and webs, in silk, worsted, and cotton; new styles, plain and figured, in great variety, constantly produced. This company successfully introduced in this country "Goodyear's" patent vulcanized rubber, in woven elastic goods, and continues its use very extensively. F 67. 250

871 Thompson, E. O., merchant tailoring, 908 Walnut street, Philadelphia, Pa.—Clothing. Exemplification of mechanical and artistic tailoring is displayed in these garments, made to order for competition, designed, also, to illustrate characteristic national workmanship, in their embellishment, by trimmings made of the national colors and coins; also particular merit is claimed for the perfect fitting pantaloons, cut according to the process patented by the exhibitor. F 71. 250

872 Sternberger, L. & S., Philadelphia, Pa.—White shirts. Manufacturers of the "Eclipse" fine white shirts; shirt fronts, drawers, overalls, etc. F 68. 250

873 Norfolk & New Brunswick Hosiery Co., New Brunswick, N. J.—Ladies', gentlemen's, and children's knitted underwear; shirts, vests, pants, and drawers; ladies' and misses' union dresses, gentlemen's and boys' merino wool half hose; ladies' and misses' merino and wool hose and three-quarter socks, in various colors. We manufacture only full fashioned or regular made goods of fine qualities. H. J. Libby & Co., agents, No. 57 White street, New York. F 70. 250

PROVIDENT
LIFE AND TRUST COMPANY,
OF PHILADELPHIA.

INCORPORATED 3 MO. 23, 1865.

ASSETS, over - - - - - - $3,000,000

Strictly Mutual. Distinguished for careful selection of risks, prudent investment of funds, great economy, and liberality to its policy-holders.

DAVID F. CONOVER & CO.,

Successors to WM. B. WARNE & CO.,

IMPORTERS, MANUFACTURERS, AND

Wholesale Dealers in

WATCHES AND JEWELRY,

Southeast corner Chestnut and Seventh Streets, first floor,

PHILADELPHIA.

American Watch Wholesale Salesroom.

DAVID F. CONOVER. B. FRANK WILLIAMS. C. EDGAR RIGHTER.

HORSTMANN, BROTHERS & CO.,

FIFTH AND CHERRY STS.,

PHILADELPHIA, PA.,

Manufacturers and Importers of

Military, Society Regalia, Church,

AND

THEATRICAL GOODS,

BANNERS, FLAGS, BUNTING.

1814. 1876.

PRESBYTERIAN BANNER,

PITTSBURGH, PA.

OLDEST RELIGIOUS NEWSPAPER.

ESTABLISHED JULY 5, 1814.

BEST MEDIUM FOR FIRST-CLASS ADVERTISING WEST OF NEW YORK

DOBBINS' ELECTRIC SOAP.—I. L. Cragin Co., Philadelphia.

No one will fail to notice the mammoth cake of this world-renowned soap, exhibited by its manufacturers, and weighing 1000 pounds. Its purity and merits are well known. One trial will show the most skeptical its superiority.

Don't leave town without getting some for trial. Make your grocer keep it. Look over our exhibit of genuine letters in its praise.

NATHAN E. MORGAN. CHAS. B. HEADLY.

MORGAN & HEADLY,

MANUFACTURERS OF

SPECTACLES,

FINE JEWELRY, CHAINS, BRACELETS,

18-KARAT PLAIN RINGS, etc. DIAMONDS A SPECIALTY.

Artisan Hall, 611 and 613 Sansom St.

PHILADELPHIA.

OUR CASE IS No. 3731, CENTRE OF MAIN BUILDING.

MINTON'S TILES,

As exhibited in the British Section, Main Building, by

Messrs. MINTON, HOLLINS & CO.,

(The Founders of the Manufacture in 1840) and as laid by us in the CAPITOL AT WASHINGTON.

A Large Stock of all kinds on hand, imported and for sale by

MILLER & COATES, Agents,

279 PEARL STREET, NEW YORK.

THE "PITTSBURGH COMMERCIAL,"

A Political, Literary, Commercial, and General Newspaper,

DEVOTED TO THE BEST INTERESTS OF THE PEOPLE.

TERMS FOR THE "DAILY COMMERCIAL"—Postage Free to Subscribers.

By Mail, per Annum, $10.00. By Mail, for Six Months, $5.00. By Mail, for Three Months, $2.50. By Mail, for One Month, 85 cents Delivered by Carriers, 15 cents per week.
"WEEKLY COMMERCIAL" [Postage Prepaid.] One Copy, One Year, $1.75.

JOSEPH H. HUDDELL. J. J. S. SEITZINGER.

HUDDELL & SEITZINGER,

Miners and Shippers of Coal

207 WALNUT STREET,

New York Office,
111 Broadway.
Boston Office,
13 Kilby Street.

PHILADELPHIA.

Samples of Coal on Exhibition in Mineral Annex.

874 Warner Bros., New York, N. Y. —Corset and skirt supporter, corset waist. F 70. 250

875 Bowers, Jas., & Co., Newark, N. J.—Sewed corsets and rivetless corset clasps. F 69. 250

876 Alkinson, Henry, Philadelphia, Pa.—White shirts, buckskin shirts, and drawers. F 70. 250

877 Zäuner, Henry, Philadelphia, Pa.—Lace, silk, and meo caps, hand knit and crochet zephyr goods, for infants. F 70. 250

879 Borm, L., Philadelphia, Pa.—Dress suit. F 69. 250

880 Wilson, J. H., Philadelphia, Pa. —Military goods. F 70. 250

881 Foy & Harmon, New Haven, Conn.—Skirt-supporting corset. F 69. 250

882 America Hosiery Co., New Britain, Conn.—Wool, merino, and cotton underwear, hosiery. F 68. 250

883 Worcester Corset Co., Worcester, Mass.—Corsets, corset and skirt supporters. F 69. 250

884 Boston Comfort Corset Co., Boston, Mass.—Corset without bones. F 69. 250

885 Palmer & Williams, Boston, Mass. — Jacqueline corsets and misses' waists. F 69. 250

886 Denham, T. M., & Brother, New Bedford, Mass.—White laundried shirts and shirt bosoms. F 68. 250

887 Rockhill & Wilson, Philadelphia, Pa.—Clothing. F 69. 250

888 Lowell Hosiery Co., Lowell, Mass.—Women's plain cotton hose. F 69. 250

889 Wanamaker & Brown, Philadelphia, Pa.—Gentlemen's, youths', and children's ready-made clothing; gentlemen's furnishing goods. B 67. 250

890 Wanamaker, John, & Co., Philadelphia, Pa.—Ancient and modern clothing worn by American gentlemen during the past century. F 67. 250

892 Cummings, J. S., & Co., Philadelphia, Pa.—Scarfs, cravats, stocks, bows, and neck wear. F 68. 250

893 Hughes, Thos., & Co., Bristol, Pa.—Cotton, merino, and wool hosiery. F 70. 250

894 Strahan, Hodgson, & Co., New York, N. Y.—Linen collars and cuffs. F 72. 250

895 American Suspender Co., Waterbury, Conn.—Webbing frills and suspenders. F 68. 250

896 Brewster Bros & Co., Birmingham, Conn.—Corsets, combined corset and skirt supporters, corset clasps. F 69. 250

897 Gabriel, Henry, & Sons, Allentown, Pa.—Knitted woolen and cotton hosiery. F 68. 250

898 American Molded Collar Co., Boston, Mass.—Combined cloth and paper collars. These collars are well known for their complete shape to the neck. The collars and cuffs have a pure starch finish, and are suitable for any gentleman to wear, always being of the latest fashion. The "molding" process, by which each collar is made to fit the neck perfectly and easily, is controlled exclusively by this company. These goods have been awarded the first prize at several expositions. F 70. 250

899 Frost, Geo., & Co., Boston, Mass. —Corsets, waists, hose supporter, emancipation suit, and under-flannel. F 70. 250

900 Sweet, Orr, & Co., factory, Wappinger's Falls, N. Y.; office, 345 Broadway, New York City.—Orr's pantaloons, overalls, and engineer jackets. The peculiar cut of these overalls must be noticed, by which such seat-room is given that the wearer feels perfect ease, in all positions; no binding or straining in any part; their strength is such that they are "warranted never to rip." F 76. 250

901 Bickford, Dana, New York, N. Y. —Knitted articles made on Dana Bickford's knitting machines. F 68. 250

902 Beatty Hosiery Mills, Philadelphia, Pa.—Hosiery. F 73. 250

903 Landenberger's, Martin, Sons, Philadelphia, Pa.—Hosiery and knit goods. F 67. 250

904 United States Corset Co., New York, N. Y.—Corsets. B 71. 250

905 Sharpless & Sons, Philadelphia, Pa.—Ladies' costumes. B 68. 250

906 Rothschild Bros. & Gutman, New York, N. Y.—Shirts, drawers, and undershirts. F 69. 250

907 Cameron, Wm., & Son, Philadelphia, Pa.—Embroidering, braiding, and stamping designs; children's clothing, indelible ink marking. F 70. 250

908 Dress Reform Co., Boston, Mass. —Dress reform clothing. F 71. 250

909 Otis Co., Ware, Mass.—Hosiery and underwear. N 75. 250

910 Hayden, James, Philadelphia, Pa.—Shirts, drawers, and necktie shields. F 72. 250

911 Peck & Greene, Brooklyn, N. Y. —Worsted and silk goods for theatrical, boating, and general underwear. B 75. 250

912 Star Knitting Co., Cohoes, N. Y. —Cotton, woolen, and merino shirts, drawers, pantalets, and union suits. F 67. 250

913 Parsons, J. H., & Co., Cohoes, N. Y.—Woolen, merino, and cotton shirts; drawers, pantalets, and union suits. F 67. 250

914 Brookside Hosiery Mills, Troy, N. Y.—Cotton, woolen, and merino shirts; drawers, pantalets, and union suits. F 67. 250

915 McDonnell, Kline, & Co., Amsterdam, N. Y.—Cotton, woolen, and merino shirts; drawers, pantalets, and union suits. F 67. 250

916 Bennett, E., Brooklyn, N. Y.— Shirts. F 68. 250

917 Coon & Van Volkenburgh, Troy, N. Y.—Men's linen collars and cuffs. F 67. 250

918 Ellis Manufacturing Co., Waltham, Mass.—Stocking supporters. H 71. 250

For classes of exhibits indicated by numbers at end of entries, see Classification, pp. 27-42.

919 Homer, Colladay & Co., Philadelphia, Pa.—F 71.
a Ladies' dresses, trousseaux, neck-ties, scarfs, and furnishing goods. 250
b Embroidery, lingerie. 252
All articles contained in this exhibit are of H., C. & Co.'s own manufacture, and at their extensive establishment, Nos. 1412 and 1414 Chestnut street, above Broad street, Philadelphia, will be found goods of a similar character, in great variety.

920 Pettingell & Sawyer, East Cambridge, Mass.—F 76.
a Waterproof oil clothes. 250
b Waterproof hats. 251

920*a* Brady, Edward, Philadelphia, Pa.—U 63.
a Collars for men's wear. 250
b Buttons. 254

921 Carney, Bernard L., Philadelphia, Pa.—Silk, beaver, and felt hats. B 70. 251

922 Jacoby, Theo., Philadelphia, Pa.—Hats, bonnets with domestic trimmings. F 70. 251

923 Hegle, Fortuné, New York, N. Y.—Material for kid glove manufacturing, and kid gloves. B 68. 251

924 Stetson, John B., & Co., Philadelphia, Pa.—Soft and stiff felt hats in various stages of manufacture. B 68. 251

925 Walton, Maison, New York, N. Y.—Bonnets and round hats. F 71. 251

926 Littleton Saranac Buck Glove Co., Boston, Mass.—Grain tanned gloves. B 69. 251

927 New York Catholic Protectory, New York, N. Y.—Shoes. V 53. 217

928 Brown, Emma, New York, N. Y.—Straw round hats and feathers. B 70. 251

929 Nonnenberger, Christian, Philadelphia, Pa.—Hatters' blocks and tools. B 69. 251

930 Fenton, J. H., & Bro., Philadelphia, Pa.—Gentlemen's dress, silk, soft and stiff felt, and other hats. B 70. 251

931 Pierson & Herman, Newark, N. J.—Hat blocks and flanges, hatters' tools. B 70. 251

932 Yates, Wharton, & Co., Newark, N. J.—Fur felt hats. B 70. 251

933 Field, J. C. & J. F., Philadelphia, Pa.—Gloves. B 69. 251

934 Hays, Daniel, Gloversville, N. Y.—Buckskin and peccary skin gloves, gauntlets, and mittens. B 71. 251

934*a* Blaylock & Co., Philadelphia, Pa.—B 71.
a Straw hats; hats. 251
b Furs, robes, fur caps, turbans, gloves, etc. 256

935 Jeannisson, Lewis, & Son, Johnstown, N. Y.—Gloves. B 71. 251

937 Haverhill Hat Co., Haverhill, Mass.—Wool hats. B 69. 251

938 Solmans, Alden, South Norwalk, Conn.—Felt hats. B 71. 251

939 Morris, E., & Co., Philadelphia, Pa.—Silk, soft, and stiff hats. B 67. 251

940 Amidon's Son, T. H., New York, N. Y.—Hats and caps. B 70. 251

941 Dunlap & Co., Hatters, 174 Fifth avenue and 589 Broadway, New York, N. Y.; manufactory and wholesale department, 161 Mercer street, New York, N. Y.—Gentlemen's silk, felt, straw and opera hats; ladies' riding hats. B 70. 251

942 Kennedy, Thos., & Bro., Philadelphia, Pa.—Wax figure in bridal costume; trimmed bonnets and hats. F 72. 251

943 Schiller, Jos., & Co., St. Louis, Mo.—Hats for gentlemen's wear. B 69. 251

945 Hutchinson, John C., Johnstown, N. Y.—Men's lined dogskin, calfskin, and lambskin gloves and gauntlets. B 71. 251

946 Northrup, W. S. & M. S., & Co., Johnstown, N. Y.—Fine lamb, real calf, and buckskin castor unlined gloves. Most glove dealers know the reliability of gloves made by this firm. B 71. 251

947 Colwell, F. E., & Co., Chicago, Ill.—Husking gloves. P 51. 251

948 Miller, Geo. F., Jacksonville, Fla.—B 74.
a Palmetto hats. 251
b Florida curiosities. 254

949 Bancroft, J. S., & Co., New York, N. Y.—Hats and caps, boys' and children's hats. B 72. 251

950 Kursheedt & Co., 190 to 194 South Fifth avenue, New York, N. Y.—Standard manufacturers—Embroideries, puffings, plaitings, and flutings, made on patented machines; ladies' collars and cuffs, ties, collarettes, lock-stitch all-over tuckings, and tucked frockings. F 69. 252

950*a* Beatty & Thorne, New York, N. Y.—Hat, badge, and ornamental printing in gold, silver, etc. P 78. 252

951 Bentley, Jeff. O., Philadelphia, Pa.—Embroidered, braided, and stamped goods; indelible marking, designs, stamps. F 72. 252

951*a* Roberts & Hevell, Newark, N. J.—T 65.
a Dress, hat, and shoe trimmings. 252
b Metal fancy goods, notions. 254
c Trunk and bag trimmings. 255

952 Barrett, Jos. W., Philadelphia, Pa.—Embroidery and braiding designs, hand worked and printed. F 72. 252

953 Thomas, Joel, Philadelphia, Pa.—Ruches, ladies' and infants' caps, ruffings, and collarettes. F 71. 252

954 Clickerman, L. M., Philadelphia, Pa.—Embroidery on linen cambric. F 68. 252

955 Palmer & Kendall, Middletown, Conn.—Mosquito net canopies with attachments, machine-tentered wide fabrics, mosquito nettings, cords, and window lines. F 77. 252

956 Bedichimer, Isaac, Philadelphia, Pa.—Masonic marks, society jewels, pins, and emblems in gold and silver. N 43. 253

956*a* Barrows, H. F., & Co., New York, N. Y.—Plated jewelry. P 43. 253

957 Muhr's, H., Sons, Philadelphia, Pa.—Gold finger rings. P 43. 253

957*a* Celluloid Novelty Co., New York, N. Y.—Celluloid jewelry. N 43. 253

958 Bailey & Co., Philadelphia, Pa.—Jewelry. N 43. 253

Jewelry, Toys, Fancy Articles.

959 Simons, Opdyke, & Co., Philadelphia, Pa.—Gold chains, gold head canes, thimbles, gold and pearl jewelry. P 43. 253

960 Caldwell, J. E., & Co., Philadelphia, Pa.—Jewelry and artistic manufactures in the precious metals, for use and decoration. N 41. 253

961 Vulcanite Jewelry Co., New York, N. Y.—Vulcanite and jet, and combination vulcanite and jet jewelry. P 43. 253

962 Goggin, Jas., New York, N. Y.—Suites of jewelry, and jewel cases of shell, jet, and bog oak. P 50. 253

963 Neher, Chas., Philadelphia, Pa.—Hair jewelry. P 43. 253

964 Starr & Marcus, New York, N. Y.—Diamonds, pearls, precious stones, rich jewels, and stone cameos. N 41. 253

965 Morgan & Headly, Philadelphia, Pa.—Gold spectacles and chains, fine jewelry. N 42. 253

966 Cottier, C., & Son, N. Y.—Imitation of precious stones and fancy cut stones. P 44. 253

967 Tillinghast, Mason & Co., Providence, R. I.—Imitation diamond jewelry. N 43. 253

968 Richards, J. J. & J. M., New York, N. Y.—Sleeve and collar buttons, studs, crosses, pins, and eardrops. P 43. 253

969 Haas, Jas. A., & Co., Philadelphia, Pa.—Jewelry; masonic and other emblems. N 43. 253

970 Hamilton P. Hunt, Providence, R. I.—Plated chains and buckle bracelets. P 43. 253

971 Kipling's, R., Sons, New York, N. Y.—Precious and imitation stones for jewelry. N 43. 253

972 Tiffany & Co., New York, N. Y.—N 41.
a Jewelry, precious stones. 253
b Gilt goods. 254

973 Robbins, Clark & Biddle, Philadelphia, Pa.—N 43.
a Jewelry, diamonds. 253
b Bronzes, fancy goods. 254

973*a* Sand, M., New York, N. Y.—Wax flowers. F 71. 254

974 Miller, Thos., New York, N. Y.—Silk umbrellas. B 70. 254

975 Pope Manufacturing Co., Boston, Mass.—Rifle air pistol for target shooting. H 71. 254

975*a* Oakville Company, Waterbury, Conn.—Shawl, bankers', and mixed pins; toilet pin rolls. H 68. 254

975*b* Galena Oil Works (limited), Franklin, Pa.—Silver card baskets and cards. P 47. 254

976 Wallace & Keller, Philadelphia, Pa.—Walking canes, bell earrings, and fancy articles. B 72. 254

976*a* Pratt, D. G., Cambridgeport, Mass.—Wood and ivory turned goods. N 57. 254

977 Birgé & Berg, Philadelphia, Pa.—Artificial flowers; picture of lion, made of flowers. F 72. 254

978 Glendenning & Truitt, Philadelphia, Pa.—Whips. B 71. 254

978*a* New York Button Co., New York, N. Y.—Silk, velvet, metal, and other buttons. B 71. 254

979 Lacmann, J., & Sons, Philadelphia, Pa.—Doll bodies. F 72. 254

979*a* Weintroub, Paul, Philadelphia, Pa.—Fancy articles of olive wood from Jerusalem. T 54. 254

980 Pilling, George P., Philadelphia, Pa.—Gold, silver, and plated masonic, odd fellows, and society jewels, marks, emblems, and other small silver wares. N 52. 254

981 Baeder, Adamson, & Co., Philadelphia, Pa.—Cowhide whips. N 68. 254

981*a* Bene, Creighton, & Co., New York, N. Y.—Feathers. H 76. 254

982 Wilson, John, Philadelphia, Pa.—Carved walking canes. B 69. 254

983 Hirsh & Brother, Philadelphia, Pa.—Umbrellas, parasols, and materials. B 72. 254

983*a* Bacon, George W., Philadelphia, Pa.—Artistic transfers in spermaceti. N 55. 254

984 Galbraith, Alex., Philadelphia, Pa.—Wax flowers and materials. F 71. 25

984*a* Dudley, Dana, Philadelphia, Pa—Toy gyroscopes. P 71. 254

985 Watson, Brock, Philadelphia, Pa.—Fancy articles carved from nuts and fruit stones; wood relics. H 69. 254

986 Potter, W. K., Providence, R. I.—Tortoise shell goods, combs, jewelry, etc. P 43. 254

986*a* Shoenhof, J., & Co., New York, N. Y.—Felt skirts. F 71. 254

987 Nickle, Robt., Rochester, N. Y.—Magical apparatus and toys. H 78. 254

987*a* Goodwin, W. C., New Haven, Conn.—Hot-air toys, guns, games, novelties, recording bank. N 71. 254

988 Bloodgood, Miss A. De Etta, New York, N. Y.—Sheet wax, wax flowers, leaves, shells, fruit, etc.; illuminated and rustic crosses. P 42. 254

988*a* Noyes, W. F., Newburyport, Mass.—Combs. F 71. 254

989 Chambers & Co., Philadelphia, Pa.—Umbrellas, parasols, and sun umbrellas. B 72. 254

989*a* Leighton, Charles, New Orleans, La.—Sleeve buttons mounted with Long Branch pebbles. F 71. 254

990 Johnson, E. S., New York, N. Y.—Tooth picks and ear spoons. N 43. 254

990*a* Jackson, Samuel C., New York, N. Y.—Silverware and jewelry trays and cases, fancy wood boxes. N 43. 254

992 Wahl, Emil, Philadelphia, Pa.—Fancy bone work, dominoes, chessmen, crochet needles, buttons, jewelry, etc. N 43. 254

993 India Rubber Comb Co., New York, N. Y.—Hardware rubber combs, syringes, drinking flasks; surgical, telegraphic, and photographic goods, etc. Manufacturers of hard rubber combs, syringes, drinking flasks, whip sockets, inkstands, oilers, thimbles, doll-heads, martingale rings, tumblers, rulers, funnels, scoops, dice cups, soap trays,

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

castor rolls, napkin rings, whip handles, salad spoons and forks, gas faucets, mustard spoons; photographic, telegraphic, electrical, and surgical goods, and all kinds of special goods; sheet, rod, and tubing. B 67. 254

994 Leiner, Moritz, New York, N. Y.—Ear cleaners, filtering racks, sponge baskets, bath and bottle brushes, probangs. P 65. 254

995 Aiken, Lambert, & Co., New York, N. Y.—Toothpicks. N 43. 254

996 Koch, Sons, & Co., New York, N. Y.—Albums and backgammon boards. P 76. 254

997 Birch, John S., New York, N. Y.—Watch key that will wind any watch. P 43. 254

998 Ellis, Knapp, & Co., New York, N. Y.—Umbrellas and parasols. B 70. 254

998*a* Feust & Rice, New York, N.Y.—Toys, jardiniers, and parlor ornaments. P 51. 254

999 Drown, W. A., & Co., Philadelphia, Pa.—Umbrellas and parasols. B 69. 254

999*a* Buffalo Decorating Co., Buffalo, N. Y.—Artificial ivy and autumn leaves. P 62. 254

1000 Hopkins & Robinson Manufacturing Co., Akron, O.—Smoking pipes. T 44. 254

1000*a* Smithers, Mrs. G. H., New York, N. Y.—Wax flowers and figures; sheet wax. F 70. 254

1001 Orange Judd Co., New York, N. Y.—Crandall's building blocks. T 73. 254

1003 Dickinson, Mrs. C. J., Chicago, Ill.—Wax flowers, leaves, fruit, ferns, etc. P 42. 254

1004 Tobin, Joseph F., No. 82 Duane street, New York, N. Y.—Whalebone goods. Manufacturer of dress, corset, whip, cane, probe, busks, brush, ribbon, round and half-round bone. F 72. 254

1005 Mabie, Todd, & Bard, New York, N. Y.—Tooth-picks. N 43. 254

1007 Riley & Lynch, Newark, N. J.—Bag and umbrella trimmings, military metal goods, masonic ornaments, etc. H 67. 254

1008 Celluloid Manufacturing Co., Newark, N. J.—Toilet brushes, etc., made from celluloid. N 43. 254

1009 American Mechanical Toy Co., N. Y.—Mechanical toys. F 70. 254

1010 Leonhard, Theo., Paterson, N. J.—Pure white beeswax bleached by sun, wax tapers or gaslighters, sheet wax and gilded brass moulds for wax flowers. N 56. 254

1011 Bradley & Hubbard Manufacturing Co., West Meriden, Conn.—Bronzes, call bells. N 47. 254

1013 Carlisle, Henry, & Son, Philadelphia, Pa.—Tortoise shell and horn combs, jewelry sets, and fancy articles. N 52. 254

1014 Althof, Bergmann, & Co., New York, N. Y.—Tin and mechanical toys. F 76. 254

1016 Bickel, August, & Son, Philadelphia, Pa.—Canes. B 71. 254

1017 Heister & Gans, New York, N. Y.—Automatic umbrellas and parasols. B 69. 254

1018 Kaldenberg, Fred. Julius, New York, N. Y.—Genuine meerschaum pipes and cigar holders, amber goods. P 66. 254

1019 Holland, John, Cincinnati, O.—Toothpicks. N 43. 254

1020 Adams, J. S., & Co., Providence, R. I.—Tortoise shell jewelry and combs. N 42. 254

1021 Demuth, Wm., & Co., New York, N. Y.—Pipes and smokers' articles. P 69. 254

1022 Wagan, R. M., Mount Lebanon, N. Y.—Fancy articles made by the Shakers. P 52. 254

1023 Stehr, Carl, New York, N. Y.—Meerschaum and amber goods. B 72. 254

1024 Harvey & Ford, Philadelphia, Pa.—Canes, umbrella and whip handles; pipes, billiard balls; pearl, horn, and ivory work. B 70. 254

1025 Waterbury Button Co., Waterbury, Conn.—Army, navy, railroad, police, state, livery, and cloth buttons; ladies' belt buckles, medals, and badges. B 76. 254

1027 Armstrong, F., Bridgeport, Conn.—Duplex ventilated garters and armlets. F 72. 254

1028 Field, A., & Sons, Taunton, Mass.—Buttons and eyelets. P 68. 254

1029 Lewy, F., New York, N. Y.—Kid glove safe. E 78. 254

1030 Matthias, Mrs. C. E., Philadelphia, Pa.—Umbrellas and parasols. F 70. 254

1031 Mitchell, Vance, & Co., New York, N. Y.—Bronzes. N 49. 254

1031*a* Griffin, A. B., Ravenna, O.—Box and pyramid made of the woods of the world, containing 9865 pieces. P 49. 254

1032 Independent Comb Co., Wappinger's Falls, N. Y.—Ladies' horn and rubber combs, dressing combs, pipe stems, and bits. B 73. 254

1033 Barnhurst & Robinson, Philadelphia, Pa.—Umbrella and parasol stretchers. B 70. 254

1034 Grottenthaler, V., Philadelphia, Pa.—Block for wood engravers, wooden smoking pipes. B 70. 254

1035 Ives, Blakeslee, & Co., Bridgeport, Conn.—Mechanical toys and novelties. F 72. 254

1036 Mains Manufacturing Co., New York, N. Y.—Dice box. N 65. 254

1037 Nax, Kuhn, & Silberman, Philadelphia, Pa.—Tobacco pipes; umbrella, parasol handles, cigar tubes, etc. B 75. 254

1038 National Button Co., Easthampton, Mass.—Cloth-covered and vegetable-ivory buttons, in great variety. Williston, Knight & Co., selling agents, Nos. 74 and 76 Worth street, New York, who sell by the case or package only. B 76. 254

Fancy Articles, Traveling Equipments, Stationery.

1039 Spaulding, D. S., Mansfield, Mass.—Tortoise shell jewelry, back combs, and fancy goods. N 43. 254

1040 Sevey, J. A., Boston, Mass.—Articles of whalebone, for whips, canes, corsets, dresses, etc. F 71. 254

1041 Eureka Manufacturing Co., Boston, Mass.—Air pistols. H 71. 254

1042 Joslin, Palmer, & William, New York, N. Y.—Horn and rubber goods, fancy back combs, and jewelry. N 43. 254

1043 Hildreth, Milo, & Co., Northboro', Mass.—Horn and tortoise shell combs and jewelry. N 43. 254

1044 Mahn, L. H., Jamaica Plains, Mass.—Base balls. F 71. 254

1047 Porter Brothers & Co., New York, N. Y.—Buttons and presses for attaching the same. H 71. 254

1047*a* Holland, J. C., New York, N. Y.—Needles. F 71. 254

1048 Harris, S., & Sons Manufacturing Co., Clinton, Mass.—Dressing and fancy combs, imitation jet and shell chains. F 71. 254

1049 Wild, G. L., & Brother, Washington, D. C.—Musical dancing toy attachment for pianos. N 64. 254

1050 Moutoux, Emil W., New York, N. Y.—Hair pictures and devices for breastpins. P 52. 254

1051 Grote, F., & Co., New York, N. Y.—Carved and turned ivory; pearl and shell goods. B 71. 254

1051*a* Conrad, Wm. C., Middletown, Pa.—Cane. T 61. 254

1052 Ansley, Fred. W., St. Augustine, Fla.—Jewelry made from native Florida material. H 68. 254

1053 Fowler Fly Fan Co., Philadelphia, Pa.—Fly fan moved by clockwork. N 54. 254

1054 Platt Bros. & Co., Waterbury, Conn.—Buttons. H 71. 254

1055 Cheshire Manufacturing Co., West Cheshire, Conn.—Buttons. H 71. 254

1056 Godfrey, C. J., & Son, Naugatuck, Conn.—Thimbles. H 71. 254

1057 Comstock Dickinson Ivory Co., Center Brook, Conn.—Ivory fine combs. H 71. 254

1058 Blake & Johnson, Waterbury, Conn.—Satin finish hair pins. H 71. 254

1059 Ives, Blakeslee, & Co., Bridgeport, Conn.—Silk covered ventilated metallic garters. H 71. 254

1059*a* Ladd, S. J., Providence, R. I.—Gold thimbles. N 43. 254

1060 Peacock, H. H., Philadelphia, Pa.—Fancy cases in morocco, velvet, and marqueterie, for jewelry, etc.; physicians' cases. P 63. 255

1060*a* Turner, Andrews & Co., Philadelphia, Pa.—Pocket and bill books, letter cases, and fancy leather articles. F 72. 255

1061 Rumpp, Chas., Philadelphia, Pa.—Fancy leather goods, dressing case, work boxes, pocketbooks, satchels, etc. H 69. 255

1061*a* Langfeld, J., & Sons, Philadelphia, Pa.—Pocketbooks, satchels, and fancy leather articles. F 70. 255

1062 Kolb, G. F., & Son, Philadelphia, Pa.—Cases for jewelry and silverware. B 71. 255

1062*a* Arms Manufacturing Co., Northampton, Mass.—Pocketbooks, photograph cases, chess boards, etc. B 78. 255

1063 Rumpp, C. F., 116 & 118 North Fourth St., Philadelphia, Pa.—Fancy leather goods, pocketbooks, cigar and match cases, bankers' cases, dressing cases, writing desks, satchels, traveling bags, etc. Any article exhibited is kept in store, and any similar goods will be made to order at short notice. B 68. 255

1063*a* Spitzer, George W., 33 Maiden Lane, New York, N. Y.—Fans, jewelry cases, and fancy leather goods. Manufacturer of leather fancy goods. Our specialties are jewelry cases and fans. These are the only fans of the kind made in this country. B 71. 255

1064 Parkhurst & Gridley, Newark, N. J.—Shawl and book strap. P 68. 255

1065 Likly, McDonald, & Rockett, Cleveland, Ohio.—Fancy leather work, gun case, etc. B 70. 255

1066 Stambach, John A., & Co., Philadelphia, Pa.—Ladies' and gentlemen's furs and robes. B 68. 256

1067 Mawson, Ed. S., & Sons, Philadelphia, Pa.—Seal sacques, muffs, caps, gloves; seal, sable, and mink skins, etc. B 68. 256

1068 Fishblatt, Lewis, Philadelphia, Pa.—Ladies' furs and carriage robes. B 70. 256

1069 Mahler, M., New York, N. Y.—Furs. B 67. 256

1070 Reisky, N. C., Philadelphia, Pa.—Ladies' furs, gentlemen's driving goods, sleigh robes, Indian painted buffalo robes. B 69 *and* 71. 256

1071 Booss, F., & Bro., 449 Broadway, New York, N. Y.—Furs, sacques, coats, muffs, boas, caps, robes, gloves, fur trimmings, and skins of all kinds. B 69. 256

1075 Kaehler, Otto, Philadelphia, Pa.—Stuffed animals, raw and dressed skins, fur robes, fancy furs, etc. B 68. 256

1076 Duryee & Hallett, Rahway, N. J—Dressed and dyed furs. H 68. 25(

1077 Burnett, W. H. & R., Newark N. J.—Furs, fur cloaks, and fur-lined mantles. B 68. 25(

Paper, Blank Books, and Stationery.

1078 Dixon Crucible Co., Jersey City, N. J.—Pencils of graphite. P 72. 258

1078*a* Amberg, William A., New York, N. Y.—File and binder. P 77. 258

1079 McGill, Geo. W., New York, N. Y.—McGill's patent fasteners, for binding papers of all descriptions; sampling for woolen, dry, and fancy goods, and for all descriptions of light binding; McGill's patent suspending rings, and braces for hanging cards, calendars, etc.; one hundred different patterns of fasteners and rings; McGill's patent letter clips, punches, presses, copying press, water cups, etc. Factories at Waterbury, Conn.; warehouses, at 49 Chambers street, New York, and 18 Federal street, Boston. P 73. 258

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Stationery.

1079a **Smith, Eldridge J., Philadelphia,** Pa.—Bill holder, envelope, and book clamp. H 69. 258

1080 **Hoskins, W. H., Philadelphia,** Pa.—Paper, envelopes, designing, engraving, printing, and lithographing. P 76. 258

1080a **Chamberlin, Whitmore, & Co.,** New York, N. Y.—Stationery. P 74. 258

1081 **Woodruff, E. W., Washington,** D. C.—File holders, for filing business and official papers, compactly and conveniently for reference. Adopted by the United States Government. P 49. 258

1082 **Tiffany & Co., New York, N. Y.**—Stationery. N 41. 258

1082a **Pottin Register Manufacturing Co., Philadelphia,** Pa.—Bank check. P 57. 258

1083 **Goldsborough, John, Philadelphia,** Pa.—Ribbon machine and hand stamps, perforating and canceling stamps. P 77. 258

1084 **American Lead Pencil Co., New York,** N. Y.—Lead pencils, materials, and process of manufacture. P 74. 258

1085 **Fairchild, Leroy W., & Co., New York,** N. Y.—Gold pens, pencil and pen cases, toothpicks and desk holders of gold and silver, etc. Awarded highest premium at Paris, 1867; Vienna, 1873; and gold and silver medals from other fairs wherever in competition. N 43. 258

1086 **Faber, Eberhard, New York, N. Y.**—Lead pencils, penholders, rubber goods, and stationers' articles. P 73. 258

1087 **Cooke, G. K., & Co., New York,** N. Y.—Revolving hand stamps, seal presses, rubber stereotypes, check protectors, combined pad and rack. P 77. 258

1088 **Johnson, E. S., New York, N. Y.**—Gold pens, pencils, and cases. N 43. 258

1089 **Muller's, Nicholas, Sons, New York,** N. Y.—Bronze stationery ware, inkstands. P 76. 258

1090 **Janentzky & Co., Philadelphia,** Pa.—Artists' materials, oil colors, water colors, paint boxes, artists' canvas, adjustable drawing table, artists' brush and color stand, sketching easels, and other articles appertaining to the fine arts, all of our own manufacture. P 77. 258

1091 **Bergner, Theo., Philadelphia, Pa.**—Drawing boards, parallel rulers, and section liners for draughtsmen's use. P 76. 258

1092 **Hawkes, Geo. F., New York, N. Y.**—Gold pens, gold, silver, pearl, and rubber pencils; fountain pen. N 43. 258

1093 **Lipman, Hymen L., Philadelphia,** Pa.—Eyelet machines, combining punch and riveter. P 74. 258

1094 **Brower Bros., New York, N. Y.**—Inkstands, paper weights, sponge cups, letter files, etc. P 74. 258

1095 **Aiken, Lambert, & Co., 12 Maiden** Lane, New York, N. Y.—Choice gold pens, penholders, cases. All goods sold guaranteed of same excellency as those on exhibition. N 43. 258

1096 **Buck, T. S., & Co., Davenport,** Ia.—Rubber type forms, rubber dating stamp. P 77. 258

1097 **Stiles, Mrs. E. W., Philadelphia,** Pa.—Book paper-file, revolving inkstand. P 30. 258

1098 **Youngs, Wm. J., & Sons, Philadelphia,** Pa.—Hand stamp. N 57. 258

1099 **Stoddard, Richard T., Boston,** Mass.—Book supporter. P 74. 258

1100 **Young, W. A., Jacksonville, Fla**—Pencil sharpeners. H 68. 258

1101 **Bender & Phillips, Hohokus N.** J.—Sheet wax. N 56. 258

1102 **Mabie, Todd, & Bard, New York,** N. Y.—Gold pens, cases, pencils, holders. N 43. 258

1103 **Hall, P. W., Austin, Texas.**—Postage stamp and ticket holders. N 68. 258

1104 **Dreka, Louis, Philadelphia, Pa.**—Portfolio and stationery. Specimens of steel and copper plate engraving, die sinking, printing, illuminating and designing. All work exhibited executed in our establishment. P 74. 258

1105 **Parkhurst & Gridley, Newark,** N. J.—Stationers' goods. P 68. 258

1106 **Foley, John, New York, N. Y.**—Gold pens, pencils, and penholders. N 43. 258

1107 **Chase, John S., Union Paste &** Sizing Co., 200 Mulberry street, New York, N. Y.—Preserved flour paste, for bookbinders' and general use; Eureka perfumed paste, for office, library, and household. P 77. 258

1108 **Mason & Co., Philadelphia, Pa.**—Engraving, fine stationery, illuminating, stamping, and copper plate printing. P 73. 258

1109 **Somers, D. M., Greenport, Brooklyn,** N. Y.—Penholders. P 72. 258

1110 **Holland, John, Cincinnati, O.**—Gold pens, pencil cases, penholders. N 43. 258

1111 **United States Soapstone Manufacturing Co., Cincinnati,** O.—Soapstone slate pencils, crayons for blackboard or metals, tailors' markers, hair crimpers and curlers, boot powder, shoemakers' blocks, foundry facings; manufacturers of soapstone goods of any description. P 77. 258

1112 **Hart, Bliven, & Mead Manufacturing Co., New York,** N. Y.—Stationery for the desk, paper files, clips, etc. P 70. 258

1113 **James, Samuel, Philadelphia, Pa.**—Artists' rotary color and brush-stand. P 77. 258

1114 **Chamberlin, Whitmore, & Co.,** New York, N. Y.—Stationery. P 74. 258

1117 **Walker, Tucker, & Co., Philadelphia,** Pa.—Rubber hand stamps. P 74. 258

1118 **Esterbrook Steel Pen Co., Camden,** N. J.—Pens and penholders. P 72. 258

1119 **Eagle Pencil Co., New York, N.** Y.—Lead and mechanical pencils, copying crayons, penholders, stationery, wood and brass articles. P 76. 258

1121 **Rowland, Joseph S. C., Philadelphia,** Pa.—Canceling ink-pad. T 47. 258

Stationery.

1122 Edsall, D. A., New York, N. Y.—Rubber hand stamps, stereotypes, folding rack pads. P 77. 258

1123 Morton, James, New York, N. Y.—Gold pens, gold, celluloid, and pearl pencils and penholders. N 43. 258

1124 Donovan, J. W., Detroit, Mich.—Record file covers, classified directory. P 58. 258

1125 Koch, Sons, & Co., New York, N. Y.—P 76.
a Bankers' cases, portfolios, patent binders, etc. 258
b Blank books. 261

1126 Moss & Co., Philadelphia, Pa.—P 77.
a Stationery. 258
b Blank books and printed books. 261

1127 Root, R. C., Anthony, & Co., New York, N. Y.—P 74.
a Office stationery. 258
b Account books, lithographic work. 261

1128 Cohen, Chas. J., 26 South Fifth street, Philadelphia, Pa.—P 74.
a Everpoint leads for pencil cases. 258
b Envelopes, all sizes and qualities. 259
c Satinette copying book. 261
d Paper boxes. 262

1129 Byron, Weston, Dalton, Mass.—Ledger and record paper. Linen, strong, double-sized paper for books, where great strength and long use are required. P 75. 259

1129*a* Stratford, Hoe, & Co., Jersey City, N. J.—P 74.
a Tissue paper. 259
b Press boards. 262

1130 Owen Paper Co., Housatonic, Mass.—First-class linen ledger papers, bond and thin linen papers; tinted wedding royals and folios, plain and patent finished; bristol boards and staple writing papers of all kinds. P 73. 259

1130*a* Brown, L. L., Paper Co., South Adams, Mass.—Ledger and flat papers. P 74. 259

1131 Southworth Co., Mittineaque, Mass.—Writing papers. P 75. 259

1132 Mount Holly Paper Co., Mount Holly Springs, Pa.—Writing papers. P 73. 259

1133 Whiting Paper Co., Holyoke, Mass.—Fine papers. P 77. 259

1134 Crescent Mills, Springfield, Mass.—Writing papers. P 74. 259

1135 Holyoke Paper Co., Holyoke, Mass.—Writing papers. P 74. 259

1136 Carson & Brown Co., Dalton, Mass.—Writing paper. P 74. 259

1137 Parsons Paper Co., Holyoke, Mass.—Writing paper. Manufacturers of white and tinted writing and envelope papers, of every description. P 74. 259

1138 Crane & Co., Dalton, Mass.—Bond, bank-note, parchment, letter, and note paper. P 74. 259

1139 Parker, Joseph, Son, & Co., New Haven, Conn.—Treasury and commercial blotting paper. Treasury blotting paper is well known for its durability and great absorbent quality, cleanliness in its use; grows soft and pliable by exposure, and never hardens on the desk. It will absorb more ink than the same thickness of papers of this class manufactured in the ordinary manner. J. G. Ditman & Co., Philadelphia, agents for Centennial. P 74. 259

1140 Campbell, Hall, & Co., New York, N. Y.—Safety paper, for protection from erasures. P 74. 259

1142 Tileston & Hollingsworth, Boston, Mass.—Steel plate, chromo, and woodcut paper. P 77. 259

1143 Crane Brothers, Westfield, Mass.—Bank ledger, record, and linen fabric papers. P 74. 259

1144 Hurlbut Paper Co., South Lee, Mass.—Writing and blank book papers. P 75. 259

1145 Seymour Paper Co., Windsor Locks, Conn.—P 75.
a Writing, envelope, blotting, plate, chromo, book, and printing papers. 259
b Colored papers. 264

1146 Megargee Bros., Philadelphia, Pa.—P 74.
a Book, plate, envelope, and writing papers. 259
b Colored papers. 264

1147 Francis & Loutrel, New York, N. Y.—P 74.
a Manifold writers, by which letters and copies are written at the same time. 259
b Bank ledger's spring book, patented April 20, 1870, opens freely and extra strong. Diaries published annually; safety checks, sure protection against raising, or fraud. 261

1147*a* Crane, L., jr., Dayton, O.—P 77.
a Paper. 260
b Card board. 262

1148 Haldeman Paper Co., Lockland, Ohio.—P 77.
a Wrapping and carpet paper, etc. 260
b Building and roofing paper. 203

1149 Jessup & Moore, Philadelphia, Pa.—Copperplate, lithograph, and book papers, news paper. P 74. 260

1150 Ivanhoe Manufacturing Co., Paterson, N. J.—Book papers, flat writing, Butler's "French folios," also in four colors; American silk copying paper, cheap colored laid writing. Specialty—animal sized writing paper in rolls. Roll one-half mile long—one continuous sheet. P 74. 260

1153 Howlett, Onderdonk, & Co., Philadelphia, Pa.—Machine-made paper bags. P 73. 260

1155 Tangeman, Geo. P., Hamilton, Ohio.—P 77.
a Carpet paper. 260
b Roofing felt. 263

1156 McNeil, Irving, & Rich, Elwood, N. J.—P 74.
a Carpet, manila, flour sack, and wrapping paper. 260
b Waterproof building paper. 263
c Colored papers. 264

1157 Mann, Wm., Philadelphia, Pa.—Blank books for banks, parchment copying books. P 75. 261

1157*a* Mets & Willse, Dubuque, Ia.—Specimens of bookbinding. P 77. 261

1158 Altemus & Co., Philadelphia, Pa—Photograph albums, scrap books, etc. T 76. 261

Stationery.

1159 Murphy's, W. F., Sons, Philadelphia, Pa.—Blank books, made to order for actual use. P 77. 261

1159*a* Lippincott, J. B., & Co., Philadelphia, Pa.—Blank books of their own manufacture. T 72. 261

1160 Thomas, Chas. F., Wilmington, Del.—Index for public records, and mercantile accounts. P 76. 261

1161 Kohler, Ignatius, Philadelphia, Pa.—Samples of bookbinding; samples of hand-finished ornamental, artistical, tool-worked bibles and large royal photograph albums, holding from 600 to 1000 pictures. (Hand-finished by Ig. Kohler himself.) T 74. 261

1161*a* Holman, A. J., & Co., Philadelphia, Pa.—Bookbinding and photograph albums. T 74. 261

1162 Burlock, Saml. D., & Co., Philadelphia, Pa.—Bookbindings. T 73. 261

1163 Walker, Evans, & Cogswell, Charleston, S. C.—Blank books, law blank case. P 74. 261

1163*a* Robinson, Savage & Co., Cleveland, O.—Russia bound register books. (*Ohio State Building.*) 261

1164 Appleton, D., & Co., Philadelphia, Pa.—Bookbinding. (*Gallery.*) T 73. 261

1164*a* Hinsdill, Henry M., Grand Rapids, Mich.—Office scratch-books. T 77. 261

1165 Sandford & Co., Cleveland, O.—Full Russia bank books. P 77. 261

1165*a* Beckett & Cervi, Cambridge, Mass.—Specimens of bookbinding. T 74. 261

1166 Siddall Bros., Philadelphia, Pa.—Vellum printing, conveyancers' envelopes, and job and book printing. P 74. 261

1167 Lange, Little, & Co., New York, N. Y.—Wood cut, railroad, and job printing. T 78. 261

1168 American Tract Society, New York, N. Y.—Bookbinding. T 76. 261

1169 Oldach & Mergenthaler, Philadelphia, Pa.—Bookbinders' work. T 75. 261

1170 Houghton, H. O., & Co., Riverside Press, Cambridge, Mass., Hurd & Houghton, New York.—Specimens of their publications, in fine library and law bindings, among them the "Massachusetts Reports," in law calf; the "Butterflies of North America," in crushed levant and vellum; "Smith's Unabridged Bible Dictionary," and "Knight's American Mechanical Dictionary," in grained levant; the special feature being a copy of "Webster's Unabridged Dictionary," manufactured at the Riverside Press, in illuminated vellum. T 76, *on the pavilion of the American Book Trade Association.* 261

1171 Reed, A., & Co., Philadelphia, Pa.—Ornamental bookbinding. T 74. 261

1171*a* New York Catholic Protectory, New York, N. Y.—Printing. V 53. 261

1172 Lindsay & Blakiston, Philadelphia, Pa.—Specimens of binding. T 73. 261

1173 Boorum & Pease, New York, N. Y.—Blank books. P 75. 261

1174 Bradley & Gilbert, Louisville, Ky.—P 75.
- *a* Blank books, specimens of printing. 261
- *b* Bonnet boards, file paper boxes. 262

1175 Kerr, N. M., & Co., Philadelphia, Pa.—Paper boxes, jewelers' findings. P 75. 262

1175*a* Richardson, J. N., Boston, Mass.—Playing cards. P 78. 262

1176 Dixon, Charles A., & Co., Philadelphia, Pa.—Engraved wedding and visiting cards, invitations, heraldic designs, and illuminations in monograms. P 75. 262

1177 American Paper Box Co., Philadelphia, Pa.—Fancy paper boxes. P 74. 262

1178 Porter & Bainbridge, New York, N. Y.—Cardboard, stationery, papeteries, etc. N 72. 262

1179 Dennison & Co., Boston, Mass.—Jewelers' paper boxes, cards, tags, labels, seals, tissue papers, sealing wax; jewelers' and surgical cotton. P 75. 262

1180 Osborn, Bennet, Newark, N. J.—Paper boxes. P 73. 262

1181 Dennison & Brown, Portland, Me.—Wood pulp and products, paper boxes, etc. P 77. 262

1182 Cornell & Shelton, Birmingham, Conn.—Folding paper boxes. P 74. 262

1183 Crompton, John, & Co., Philadelphia, Pa.—Jewelers', druggists', and perfumers' boxes. P 74. 262

1184 Rhode Island Cardboard Co., Pawtucket, R. I.—Cardboard, cards for printers and photographers, manilla tag stock. P 74. 262

1185 McClement Brothers, Philadelphia, Pa.—Embossed business cards, embossed labels, cut and gummed, and impressions from notarial and society seals. P 74. 262

1186 Nashua Card & Glazed Paper Co., Nashua, N. H.—Fancy paper boxes, colored paper and cardboard. P 74. 262

1186*a* Zennig, R. H., & Co., New York, N. Y.—Fancy paper boxes. P 43. 262

1187 Dougherty, A., New York, N. Y.—Playing cards. P 77. 262

1188 Beck, Charles, Philadelphia, Pa.—P 76.
- *a* Cards, cardboard. 262
- *b* Fancy, colored, glazed, enameled, and embossed papers. 264

1188*a* Scott, T. Seymour, & Bro., Philadelphia, Pa.—P 77.
- *a* Bonnet and carpet boards. 262
- *b* Paper carpet and building paper. 263

1189 Davey, W. O., & Sons, Jersey City, N. J.—P 77.
- *a* Binders' trunk and box boards. 262
- *b* Oakum. 666

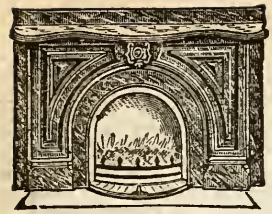
1190 Stelwagon, Jos., & Sons, Philadelphia, Pa.—Raw roofing paper; prepared roofing and sheathing paper; carpet and sheathing paper. P 76. 263

1193 Grice, Jas., & Sons, Downingtown, Pa.—Wrappers for paper manufacturers. P 77. 263

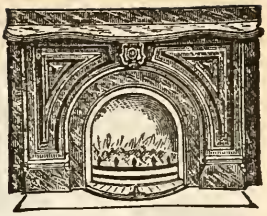
1194 Gordon, A. Dunlop, Philadelphia, Pa.—Building and manila concrete felts. P 74. 263

1195 Case Brothers, South Manchester, Conn.—Paper boards. P 74. 263

For location of objects, indicated by letter and figure, see Key to Notation, p. 25; ground plan, p. 26.



Lowest Prices.
Defy Competition.
Quality Unequaled.



E. D. & W. A. FRENCH,

S. E. corner Third and Vine Streets,

CAMDEN, N. J.,

OPPOSITE PHILADELPHIA, PA.,

SLATE MANTELS,

AND PAINTERS' AND BUILDERS' SUPPLY DEPOT

Third and Vine, Camden, N. J.

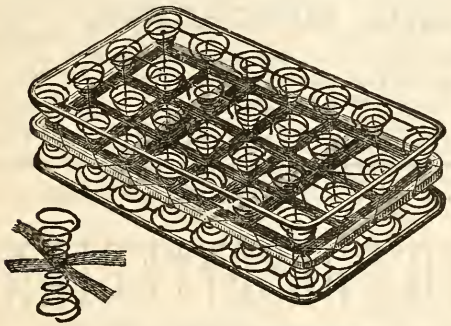
S. P. KITTLE,

MANUFACTURER OF

Spring Beds and Bedding,

Bed and Table Linen, Spiral Springs, Feathers, Hair, etc., etc.

BUY WHERE A THING IS MADE.



Half Border and Double Border

SPRING BEDS.



Hotels, Steamboats, and the Trade Supplied.

203 and 205 Canal Street, New York.

See Goods in Main Building, P 52, No. 3228.

SOLE AGENTS IN THE UNITED STATES.

FOR JAMES SMITH & SON'S GENUINE NEEDLES

STUCK IN PAT. WRAPPERS







JOHN THORNTON & CO.

IMPORTERS OF

PEARL SHIRT BUTTONS, HEMMING'S FISH HOOKS, ETC. ETC.

211 & 213 CHURCH ST. PHILAD.A AND 400 BROADWAY NEW-YORK

THOMAS WATTSON & SONS,

PHILADELPHIA,

COMERCIANTES COMISIONISTAS,

NEGOCIANTES COMMISSIONAIRES,

COMMISSION MERCHANTS,

Receive on consignment West India and South America Produce. Buy and Ship all sorts of American Produce and Manufactures.

ASPHALTUM FOR SALE.

Recoivent en consignation toute classe de produits étrangers. Achètent et expedient toute espèce de produits et manufactures Americaines.

Reciben en consignacion toda clase de productos extrangeros. Compran y embarcan toda especie de productos y manufacturas Americanas.

IMPORTANT TO ADVERTISERS.

THE UNITED PRESBYTERIAN,

PUBLISHED AT PITTSBURGH, PA.,

Has a larger circulation than any Religious Newspaper in the West, and, as an advertising medium, is unsurpassed.

H. J. MURDOCH & CO.,

Editors and Proprietors.

Paper Manufactures, Firearms, Ammunition.

1196 Barrett, Arnold, & Kimball, Chicago, Ill.—P 76.
a Aluminous and ornamental building paper. 263
b Paper oil cloth. 264

1197 Van Skelline, Theo., Brooklyn, N. Y.—Motto papers and motto flowers. P 74. 264

1 97*a* Goth, Herman J., Bethlehem, Pa.—Oil-painted-washable wall paper. A. Goth & Co.'s patents improved. This paper is a most valuable invention, and as to beauty smoothness, durability, and cheapness, it is superior to oil-painted walls. P 59. 264

1198 Dejonge, Louis, & Co., New York, N. Y.—Fancy colored, glazed, plated, enameled, varnished, embossed, and printed papers. P 74. 264

1199 Beck, Fr., & Co., 206 & 208 West Twenty-ninth street, New York, N. Y.—Wall papers. The goods exhibited by this firm are of two classes: one made by hand-printing alone, the other by machinery alone. In the former a great variety of colors can be used, matching furniture coverings and draperies, if desired, and, indeed, the appearance of watered silks, or satins, or rich embroidered stuffs, can be so closely imitated that the printed paper can scarcely be distinguished from the genuine fabric. The goods made by machinery are commended for skill in workmanship, for graceful drawing in pattern, for a close resemblance to hand-printed papers, and for cheapness in price. P 76. 264

1200 Howell & Brothers, Philadelphia, Pa.—Paper hangings, borders, fireboard prints, and window papers. P 76. 264

1200*a* Spurr, Chas. W., Boston, Mass.—Wood hangings and marquetries. P 73. 264

1201 Howell & Bourke, Philadelphia, Pa.—Paper hangings and fresco decorations. P 59. 264

1202 Westerberg, Jefferson, & Co., New York, N. Y.—Decorations and embossed gold papers. P 76. 264

1203 Nagle, Cook, & Ewing, Philadelphia, Pa.—Decorative paper hanging. P 55. 264

Military and Nava Armaments, Ordnance, Firearms, and Hunting Apparatus.

1204 Union Metallic Cartridge Co., Bridgeport, Conn.—Metallic shells, bullets, wads, and percussion caps; cartridge machinery. H 70. 265

1205 Sparks, Thos. W., Philadelphia, Pa.—Drop-shot, mould, and conical balls. H 71. 265

1206 Billings & Spencer Co., Hartford, Conn.—Breechloading firearms. H 72. 265

1207 Remington, E., & Sons, Ilion, N. Y.—Firearms and ammunition. H 67. 265

1208 Smith & Wesson, Springfield, Mass.—Revolving firearms. H 69. 265

1209 Colt's Patent Firearms Manufacturing Co., Hartford, Conn.—Breechloading military and sporting small-arms, and military and pocket revolvers for metallic ammunition. H 72. 265

1210 Gardner, Wm., Hartford, Conn.—Breechloading cannon, machine guns, magazine shoulder arms. H 70. 265

1211 Forehand & Wadsworth, Worcester, Mass.—Revolving military and sporting firearm. H 71. 265

1212 Rawbone, Thos., Newark, N. J.—Cartridge-creaser. H 72. 265

1213 Whitney Arms Co., Whitneyville, Conn.—Breechloading military and sporting rifles, carbines, shotguns, revolvers, etc., with ammunition. H 68. 265

1214 Sharps Rifle Co., Bridgeport, Conn.—Rifles. H 72. 265

1215 Merchants' Shot Tower Co., Baltimore, Md.—Drop and mould shot. Capacity, one million bags per annum. Patent improved style soft bar lead. H 71. 265

1216 Burgess, Andrew, Owego, N.Y.—Magazine rifles for military and sporting purposes. H 68. 265

1217 Goldmark, Joseph, New York, N. Y.—Percussion caps, primers, burglar alarm exploders, blasting detonators, metallic and paper cartridges, metal and paper boxes. H 71. 265

1218 Lovell, John P., & Sons, Boston, Mass.—Revolvers. H 72. 265

1219 Dana, Edw. A., Boston, Mass.—Expanding projectiles for rifled cannon. H 72. 265

1220 Schoverling & Daly, New York, N. Y.—Hunting and target rifles, revolvers, breechloading implements. H 70. 265

1221 Winchester Repeating Arms Co., New Haven, Conn.—Magazine or repeating military and sporting firearms, metallic cartridges for small arms. H 72 265

1222 Wesson, Frank, Worcester, Mass.—Breechloading sporting and pocket target rifles. H 70. 265

1223 Rupertus, Jacob, Philadelphia, Pa.—Revolvers and repeating pistols. H 70. 265

1224 United States Cartridge Co., Lowell, Mass.—Metallic cartridges. Manufacturers of a perfect brass shell, central fire, solid head cartridge, capable of reloading many times; also, manufacturers of central and rim fire ammunition, of all kinds. H 72. 265

1225 American Arms Co., Boston, Mass.—Double-barreled, breechloading shotguns, and locks. H 72. 265

1226 Merwin, Hulbert, & Co., New York, N. Y.—Revolving firearms and magazine gun, military and sporting metallic cartridges. H 70. 265

1227 Evans' Rifle Manufacturing Co., Mechanic Falls, Me.—Magazine rifle, carbine, and musket. H 70. 265

1227*a* Clark & Sneider, Baltimore, Md.—Guns and parts of breechloading shot guns. H 71. 265

1228 Willis, Aug. L., Philadelphia, Pa.—Time and percussion shell fuse. H 68. 265

1229 Miller, Wm. Deeds, New York N. Y.—Firearms. H 70. 265

1230 Schneelock, Otto, Brooklyn, N. Y.—Self-indicating target. H 70. 265

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

1231 Stevens, J., & Co., Chicopee Falls, Mass.—Breechloading shotguns, rifles, and pistols. They now supply thoroughly well-made strong and close-shooting breech-loading double shotguns, 10 or 12 gauge twist, $40.00; laminated steel, $45.00; extra finish, $55.00. Their rifles and pocket rifles shoot with wonderful accuracy. Circulars and full particulars on application to their agent, Charles Folsom, 53 Chambers street, New York, or H 71 Main Building. H 71. 265

1232 Stoddard, Charles J., Washington, D. C.—Cartridge-loading implement. H 72. 265

1233 Gatling, Richard J., Hartford, Conn.—Battery gun. This celebrated machine gun fires from 800 to 1000 shots per minute, has great accuracy, and the larger calibres have an effective range of over two miles. Manufactured by the Gatling Gun Company, at Hartford, Conn. H 70. 266

1234 Witty, Calvin, New York, N. Y.—Breechloading field cannon. H 69. 266

1235 Nekervis, Wm., Philadelphia, Pa.—Model of Parrott gun, with caisson complete. H 72. 266

1236 South Boston Manufacturing Co., Boston, Mass.—Bronze and steel rifle cannon, boat howitzer. H 71. 266

1237 Boon, B., West Medford, Mass.—Miniature field artillery, limber, and field piece. H 72. 266

1239 Ridgway, John, Heirs of, Boston, Mass.—Revolving battery. H 69. 267

1239*a* Stevens Institute of Technology, Hoboken, N. J.—Model of the Stevens battery. T 67. 267

1239*b* Paulding, Kemble, & Co., Cold Spring, N. Y.—Model of gun carriage. H 72. 267

1240 Ames Manufacturing Co., Chicopee, Mass.—United States regulation, masonic, and society swords. H 72. 268

1241 Collins & Co., New York, N. Y.—Machetes, swords, bayonets, etc. N 67. 268

242 Gaylord Manufacturing Co., Chicopee, Mass.—Presentation and society swords. N 70. 268

1243 Wurfflein, Wm., Philadelphia, Pa.—Parlor or gallery rifles and mechanical targets. H 72. 269

1244 Krider, John, Philadelphia, Pa.—H 72.

a Guns, pistols. 269

b Fishing tackle and sporting goods. 270

1245 Providence Tool Co., Providence, R. I.—Breechloading rifles for military, target, and sporting purposes. Manufacturers of "Peabody-Martini" rifles, for military, target, and sporting purposes. The standard arm of Great Britain, noted for strength, accuracy, simplicity, and beauty; 1,500,000 shots have been fired at the factory from 300,000 of these rifles, without accident; also manufacturers of heavy hardware, ship-chandlers' and sail-makers' hardware, nuts, bolts, hinges, etc. H 72. 269

1246 Tryon, E. K., jr., & Co., Philadelphia, Pa.—Muzzle loading rifles, shotguns, revolvers, gunmakers' tools, etc. H 70. 269

1247 Harder, J., & Son, Lock Haven, Pa.—Single, double, and three-barrel guns. Manufacturers of all kinds of muzzle-loading guns. H 71. 269

1248 Parker, Chas., Meriden, Conn.—Double-barreled breechloading shot guns. H 70. 269

1249 Harrington & Richardson, Worcester, Mass.—Revolving firearms with shell ejector. H 72. 269

1250 Burton, Bethel, Brooklyn, N. Y.—Military and sporting magazine rifles, bayonets, portable cartridge reloader. H 72. 269

Medicine, Surgery, Prothesis.

1252 Boericke & Tafel, 635 Arch street, Philadelphia, Pa.—Official homeopathic medical preparations, books and periodicals. Manufacturing homeopathic pharmacists. Complete assortment of homeopathic medicines, in their different degrees and forms, for physicians, families and druggists; sugar of milk, pellets, cases, corks, vials. Publishers of homeopathic literature. N 50. 272

1252*a* Planten, H., & Son, New York, N. Y.—Gelatine capsules. N 58. 272

1253 Wallace Bros., Statesville, N. C.—Wholesale dealers in southern roots, herbs, barks, flowers, seeds, etc., of fine quality. Orders solicited. N 58. 272

1253*a* Dick, Dundas, 35 & 37 Wooster street, New York.—Tasteless medicines. These soft capsules are acknowledged by the most eminent physicians a true method to administer nauseous medicines, which often detract from, if they do not destroy, the beneficial effects of some of the most valuable remedies prescribed. No patent or proprietary medicines are put up in soft capsules. Explanatory circulars free at every drug store in the United States. These capsules were admitted to the last Paris Exposition. T 50. 272

1254 Seabury & Johnson, New York, N. Y.—Plasters. T 44. 272

1255 Mitchell, Geo. E., Lowell, Mass.—Surgical, medicinal, and pharmaceutical plasters and plaster compounds, lung protectors. N 53. 272

1256 Fehr, Julius, Hoboken, N. J.—Compound talcum—baby powder. The hygienic dermal powder, useful for infants and adults, containing most valuable therapeutic properties. N 52. 272

1257 Randle, Wm. H., Baltimore, Md.—Botanical medicines. N 52. 272

1258 Tims, Wm., Paterson, N. J.—Homeopathic pellets. N 52. 272

1259 Wilson, B. O. & G. C., Boston, Mass.—Pressed medicinal herbs, leaves, flowers, seeds, roots, barks, etc. N 52. 272

1260 Smith's Homeopathic Pharmacy, New York, N. Y.—Homeopathic preparations in tinctures, triturations, and globules, cases for professional and family use. N 54. 272

1261 Ayer, J. C., & Co., Lowell, Mass.—Cherry pectoral, cathartic pills, sarsaparilla, ague cure, hair vigor. N 52. 272

Medicines, Surgical Appliances.

1262 Blair's, H. C., Sons, Philadelphia, Pa.—T 47.
a Wheat food. 273
b Fountain syringes. 274

1263 Hance Bros. & White, Philadelphia, Pa.—Conical plate drug mill and filtering apparatus. P 43. 274

1263*a* Rohrbeck & Goebeler, New York, N. Y.—School air pump. N 55. 274

1264 Bishop, Joaquin, Sugartown, Chester Co., Pa.—Platina crucibles, stills, bottles, blowpipe tubes, ignition tubes, etc. Manufacturers of platinum crucibles, ignition tubes, stills, bottles, wire, and articles used by analytical chemists; refining and melting of scrap or native grain platinum. Old platinum bought and taken in exchange. P 49. 274

1265 Gilbert, Alfred A., Philadelphia, Pa.—Medicine chest and saddlebags. N 51. 274

1266 Hechelman, H. W., Allegheny City, Pa.—Anatomical preparations of human ear and eye. N 54. 275

1266*a* Seaman, Louis Livingston, New York, N. Y.—Auscultatory percussor, for diagnosing. N 58. 275

1266*b* Longaker, H. D., Allentown, Pa.—Surgical and anatomical specimens of malignant tumors. T 47. 275

1266*c* Bowen, Truman, Boston, Mass.—Casting in the lungs of a calf. N 54. 275

1267 McIlroy, T., New York, N. Y.—Invalid, elevating, and fracture bedsteads, surgical operating and dissecting tables, oculists' and surgical operating chair. N 50. 276

1267*a* Whittemore, Joshua, Wakefield, Mass.—Elastic crutches. H 72. 276

1268 Condell, J., & Son, New York, N. Y.—Artificial limbs. N 58. 276

1268*a* Vaughan, W. R., Council Bluffs, Ia.—Belt trusses and supporters. N 58. 276

1269 Everett, B. C., Philadelphia, Pa.—Trusses, supporters, shoulder braces, elastic stockings, belts, and artificial limbs. N 56. 276

1269*a* Shepard & Dudley, New York, N. Y.—Surgical instruments and orthopedic apparatus. N 58. 276

1270 Taylor, Charles F., New York, N. Y.—Orthopedic apparatus and machines for local exercise. N 52. 276

1270*a* Day, G. Hayden, Bennington, Vt.—Fracture splints. N 55. 276

1271 Tiemann, Geo., & Co., No. 67 Chatham street, New York, N. Y.—Manufacturers of surgical instruments and orthopedic appliances. Established in 1826; branch store, 107 East Twenty-Eighth street, New York; steam factory, 81, 83, and 85 Boerum street, Brooklyn, E. D. Exhibit a most complete and compact operating set, containing, in ten compartments, over one hundred and eighty instruments, ample for every modern operation; specimens of operating cases used in America; Heine's osteotome for resection; Tiemann & Co.'s new rotating-blade osteotome; Tiemann & Co.'s new apparatus for fracture of arm and leg; anatomical syringe; Dawson's cautery battery, smallest battery known; Tiemann & Co.'s patent and other aspirators; patent steam atomizer; patent automatic and other hypodermic syringes; laryngoscopes; ophthalmologists', aurists', gynecologists', and other instruments; a variety of entirely new instruments of American origin, etc., etc. All articles exhibited are Tiemann & Co.'s own manufacture. Their catalogue, bound in cloth, numbering four hundred and twenty-six pages, and containing over fifteen hundred engravings, can be obtained in New York for the cost of binding—seventy-five cents. N 51. 276

1271*a* Newbauer, Wm. G., Long Island City, N. Y.—Medical-plaster spreading machine. P 47. 276

1272 Marks, A. A., New York, N. Y.—Artificial limbs, india rubber hands and feet. N 58. 276

1272*a* Lee, Benjamin, Philadelphia, Pa.—Apparatus for the treatment of spinal curvatures. N 56. 276

1273 Woods, J. T., Toledo, O.—Splint for leg and thigh. N 59. 276

1273*a* Ahl, David, Newville, Pa.—Adaptable porous splints. P 71. 276

1274 Pilling, Geo. P., Philadelphia, Pa.—Gold, silver, and plated surgical instruments. N 52. 276

1275 Mervine, S. P., jr., Philadelphia, Pa.—Gynecological apparatus. N 52. 276

1276 Gemrig, J. H., Philadelphia, Pa.—Surgical instruments and appliances. N 57. 276

1277 Perry, Vincent, Germantown, Pa.—Elastic bandages for surgical purposes. N 57. 276

1278 National Surgical Institute, Indianapolis, Ind.—Surgical and mechanical appliances, splints, operating chairs, crutches, supporters, and trusses. N 56. 276

1279 Penfield, E. C., & Co., Philadelphia, Pa.—Trusses, etc. N 59. 276

1280 Elastic Truss Co., New York, N. Y.—Elastic trusses and abdominal supporters. N 56. 276

1281 Blanck, Wm., & Son, Philadelphia, Pa.—Artificial limbs and appliances. N 58. 276

1283 Leiner, M., New York, N Y.—Surgical instruments, ear cleaners, filtering racks. P 66. 277

1284 Rhodes, Isaac M., Hancock, Mich—Easy chair, invalid bed, and fracture apparatus combined. N 59. 276

1285 Clement, Richard, Philadelphia, Pa.—Artificial limbs. N 58. 276

1286 Horn, W. H., & Bro., Philadelphia, Pa.—Trusses, abdominal supporters, etc. N 59. 276

1287 Darrach, S. A., Newark, N. J.—Wheel crutch and attachments; vulcanized rawhide spine support. N 58. 276

1288 Goodier, John, Philadelphia, Pa.—Lever and shield trusses for ruptures. N 58. 276

1289 Crandall, Chas. J., New York, N. Y.—Crutches. N 56. 276

1290 Wickett & Bradley, New York, N. Y.—Artificial limbs. N 57. 276

1290*a* Beckel, August, & Son, Philadelphia, Pa.—Crutches. 276

1291 Hinkle & Mayon, San Francisco, Cal.—Surgical and mechanical appliances, splints, operating chairs, crutches, supporters, and trusses. N 56. 276

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Medical and Surgical Appliances, Tools.

1292 Handy & Boland, Atlanta, Ga.—Surgical and mechanical appliances, splints, operating chairs, crutches, supporters, and trusses. N 56. 276

1293 Kolbe, D. W., Philadelphia, Pa.—Surgical and orthopedical instruments; artificial limbs. N 53. 276

1294 Triumph Truss Co., New York, N. Y.—Truss and supporter. N 53. 276

1295 Kern, Horatio G., Philadelphia, Pa.—Surgical and dental instruments. N 56. 276

1296 Foster, James A., Philadelphia, Pa.—Artificial limbs. These limbs are manufactured at Philadelphia, Pa.; Cincinnati, O.; St. Louis, Mo.; Chicago, Ill.; and Detroit, Mich. Illustrated descriptive pamphlets free. N 53. 276

1297 Pingree, Luther F., Portland, Me.—Artificial limbs. N 53. 276

1298 Otto, F. G., & Sons, New York, N. Y.—Surgical instruments and orthopedical appliances. N 53. 276

1299 Bartlett, Butman, & Packer, Boston, Mass.—Trusses. N 51. 276

1300 Frees, C. A., New York, N. Y.—Artificial limbs and extensions. N 56. 276

1301 Palmer, B. Frank, LL.D., Philadelphia, Pa.—New patent leg and arm, safety socket united to the stump, securing positive comfort. Original patent, 1846; new patent, perfected, 1873. New automatic system, for universal motion, power, and sound applied to writing, printing, music, etc. Original writing machine (type-writer) made in 1851, perfected in 1876. N 54. 276

1302 Seeley, I. B., Philadelphia, Pa.—Hard rubber trusses, abdominal supporters, pile instruments, elastic surgical hosiery, bandages, etc. N 53. 276

1303 McElroy, P. J., East Cambridge, Mass.—Glass and family syringes, feeding and drinking tubes, nipple shields, medicine droppers, etc. N 51. 276

1304 Miller, Jas. S., Philadelphia, Pa.—Trusses and braces. N 58. 276

1305 Rowand, John R., Philadelphia, Pa.—Gynæcological apparatus. N 51. 276

1307 Allen & Johnson, Philadelphia, Pa.—Surgical and mechanical appliances, splints, operating chairs, crutches, supporters, and trusses. N 56. 276

1308 Bethell, John P., Philadelphia, Pa.—Surgical and gynæcological apparatus; artificial steel leg. N 57. 276

1309 Philadelphia Truss Co., Philadelphia, Pa.—Trusses, supporters, shoulder braces, elastic stockings, belts; combination truss and supporter. N 57. 276

1310 Gunning, Thomas Brian, 34 East Twenty-first street, New York, N. Y.—Fractured jaw appliances, including Secretary Seward's; illustrating heads; cleft palate appliances; teeth plates; regulating plates. N 51. 276

1311 Spillman, Henry, New Orleans, La.—Trusses, supporters, and shoulder braces. N 58. 276

1312 Davis, James T., New York, N. Y.—Artificial human eyes. N 54. 276

1313 Teufel, J. J., office and factory, No. 103 South Eighth street, Philadelphia, Pa.—N. 54.
a Surgical instruments. 276
b Dental instruments. 277

1314 Codman & Shurtleff, Boston, Mass.—N 57.
a Surgical instruments, apparatus and appliances. 276
b Dental instruments, furniture, and materials; laboratory tools, etc. 277

1315 Justi, H. D., Philadelphia, Pa.—Artificial teeth, tools, and materials for their manufacture. N 54. 277

1316 Johnson & Lund, Philadelphia, Pa.—Artificial teeth, corundum wheels, gold foil, tooth powders, amalgams, dental instruments and materials. N 59. 277

1316*a* Neve, Edward, Omaha, Neb.—Artificial teeth. N 58. 277

1317 Wardle, Thos., Philadelphia, Pa.—Artificial teeth and models. N 58. 277

1317*a* Chapman, John Winslow, Hyannis, Mass.—Artificial teeth. N 58. 277

1318 Brown, E. Parmly, Flushing, N. Y.—Gold fillings in human teeth, dentists' cases, dental improvements. N 57. 277

1319 White, Samuel S., Philadelphia, Pa.—Artificial teeth, instruments, chairs, dental engines, stools, lathes, brackets, spittoons, gold foils, corundum wheels, etc. N 55. 277

1320 White, Chas. A., Philadelphia, Pa.—Celluloid apparatus and dental flasks, process of forming sets of artificial teeth, artificial dentures. N 56. 277

1321 Metcalf, David H., Battle Creek, Mich.—Tinman's pattern sheets and squares. N 68. 28c

1322 Allen, J., & Son, New York, N. Y.—Artificial dentures. N 57. 277

1323 Abbey, Chas., & Sons, Philadelphia, Pa.—Dentists' fine gold foil, soft or non-adhesive and adhesive. Our specialty for fifty years. N 58. 277

1324 Bonwill, W. G. A., Philadelphia, Pa.—Electro-magnetic mallet for filling teeth, carving marble, chasing metals, and as an autographic printing press; dental chair and engine. N 59. 277

1325 Taylor, J. Hare, Philadelphia, Pa.—Tooth paste, etc. N 57. 277

1326 Wardle, S., Cincinnati, O.—Specimens of dentistry. N 58. 277

1327 Neall, Daniel W., Camden, N. J.—Porcelain teeth. N 57. 277

1329 Crowther, D. W., Hagerstown, Md.—Mechanical and operative dentistry. N 58. 277

1330 Scott, Quincy A., Pittsburg, Pa.—Atmospheric disk for holding artificial teeth in the mouth, dental specimens, dentrifice. N 56. 277

1331 Ludwig, Schmidt, & Mohl, Houston, Texas.—Enamel; specimens of teeth. N 52. 277

1332 Valleau, William, jr., New York, N. Y.—Gold and silver leaf, gold and platina filling for dentists' use. N 63. 277

1334 Cutter, Ephraim, Cambridge, Mass.—Adjustable chair for invalids. N 58. 278

Hardware, Edge Tools, Cutlery, Metallic Products.

1335 Collins & Co., New York, N. Y.—Cast steel tools; sledges. N 67. 280

1336 Elgin National Watch Co., Elgin, Ill.—Watchmakers' tools. P 67. 280

Hardware, Tools, Cutlery.

1336*a* **Shepardson, H. S., & Co.,** Shelburn Falls, Mass.—Diamond, pod, and screw driver bits, nail sets, gimlets, tool cases, etc. H 68. 280

1337 Douglas Axe Manufacturing Co., Boston, Mass.—Axes, hatchets, adzes, picks, etc. N 67. 280

1338 Pugh, Job T., Philadelphia, Pa.—Screw augers and auger bits. Known as an old established manufacturer of augers and bits; established 1774; a descendant of the inventor of the screw auger. These augers are known to all who use them, as the old hand-made auger, thereby gaining great durability. N 72. 280

1338*a* **Ernst & Elterich, Jersey City,** N. J.—Tools. N 68. 280

1339 Conard, A. & I., Whitemarsh, Pa.—Cast steel wood-boring implements. P 71. 280

1339*a* **Eagle Square Manufacturing** Co., South Shaftsbury, Vt.—Boring machines, squares, and rules. P 78. 280

1340 Elmira Nobles' Manufacturing Co., Elmira, N. Y.—Carpenters' and shipwrights' tools. N 71. 280

1340*a* **Buck, Charles, Milbury, Mass.**—Edge tools. N 71. 280

1341 Quint, S. H., & Son, Philadelphia, Pa.—Stencils, stamps, checks, tags, etc.; metallic pattern letters, for raised lettering or castings, names, addresses, etc. H 71 280

1341*a* **Genkinger, Adolph, Newark,** N. J.—Tools, etc. N 68. 280

1342 Carter, Edwd., Troy, N. Y.—Nickel-plated goods; planes, mechanics' tools. P 69. 280

1342*a* **Howell, S. J., Orange, Mass.**—Polishing lathes and wheels, tweezers, saw frames. N 68. 280

1343 Stanley Rule & Level Co., New Britain, Conn.—Rules, levels, squares, and carpenters' tools. N 68. 280

1343*a* **Holland, James C., New York,** N. Y.—Self-threading surgical and sewing machine needles, sail and packing needles. F 71. 280

1344 Billings & Spencer Co., Hartford, Conn.—Drop forgings, machinists' small tools, sewing machine shuttles. H 72. 280

1344*a* **Bossard, H., Philadelphia, Pa.**—Watchmaker's slide rest. N 43. 280

1345 Eddy, Geo. M., & Co., Brooklyn, N. Y.—Fine steel band saws and tempered steel springs. N 57. 280

1345*a* **Fry's Bookbinder's Stamp &** Tool Manufactory, Philadelphia, Pa.—Stamps and tools for the embellishment of books. T 75. 280

1346 Rose, Wm., & Bros., Philadel-phia, Pa.—Bricklayers', plasterers', moulders' and saddlers' tools. N 72. 280

1346*a* **Douglass Manufacturing Co.,** New York, N. Y.—Mechanics' tools, cutting and boring implements. N 70. 280

1347 Colton, Alfred J., Philadelphia, Pa.—Stair hand-rail planes and double-edge cutters, carpenters' moulding planes. N 69 280

1348 Pratt, Jas. T., & Co., New York, N. Y.—Tool chests for amateurs or mechanics. N 68. 280

1349 Maltby, Curtiss, & Co., New York, N. Y.—Nail puller. B 77. 280

1350 Kohler, Martin, Philadelphia, Pa.—Knee-rest for tailors. N 70. 280

1351 Carter, Henry, New York, N. Y.—Moulders' and plasterers' tools. N 70. 280

1352 Sinsz, Philip, Baltimore, Md.—Glaziers' diamonds, machinery for circular and oval cutting, engravers' points, carbon tools. N 68. 280

1353 King, Josiah, & Son, New York, N. Y.—Planes and tools for wood workers. N 71. 280

1354 Booth, John, & Son, Philadelphia, Pa.—Carpenters' tools and sundries. N 69. 280

1355 Barton, D. R., Tool Co., Rochester, N. Y.—Mechanics' edge tools. N 70. 280

1356 American Shovel Co., Birming-ham, Conn.—Shovels and scoops. P 68. 280

1357 Johnson, Wm., Hedenberg Works, Newark, N. J.—Carpenters' and other mechanics' tools and hardware. N 69. 280

1358 Hampton, Chas. F., Ardmore, Pa.—Augers and bits. N 71. 280

1359 Ten Eyck Axe Manufacturing Co., Cohoes, N. Y.—Axes, carpenters' edge tools, etc. N 68. 280

1360 White, Wm., Newark, N. J.—Axes, hatchets, adzes, bush hooks, stone hammers, picks, etc.; carriage shaft-couplings. P 71. 280

1361 Selsor, Geo., & Co., Philadelphia, Pa.—Hammers, edge and railroad tools, coffee mills, slaw cutters, tacks, and nails. N 68. 280

1362 Star Tool Co., Middletown, Conn.—Machinists' and carpenters' tools; squares, bevels, gauges, standard steel rules, etc.; blind trimmings. These goods are of the finest finish; the squares are perfectly accurate and of different varieties, adapted to the wants of workers in wood or iron; the rules are graduated on spring-tempered steel, and are made only by this company. P 67. 280

1362*a* **Gardam, William, & Son, New** York, N. Y.—Index plates, dividing and drilling machines. N 68. 280

1363 Snell Manufacturing Co., Fisk-dale, Mass.—Augers, auger bits, and boring machines. P 71. 280

1364 Buck Bros., Riverlin Works, Mil-bury, Mass.—Shank and socket firmer chisels and gouges, plane irons, screw drivers, nail sets, etc. N 69. 280

1365 Maydole, D., & Co., Norwich, N. Y.—Cast steel hammers. N 71. 280

1366 Foerster & Kraenter, Newark, N. J.—Tools. N 68. 280

1367 Davis Level & Tool Co., Spring-field, Mass.—Adjustable levels and planes and iron planes. P 71. 280

1368 DeWitt, Morrison, & Kelley, Phil-adelphia, Pa.—Carpenters', millwrights', gasfitters', pump, and car builders' machine and auger bits. These are the celebrated arrow brand for boring all kinds of wood. P 71. 280

1369 Shepherd & Lloyd, Philadelphia, Pa.—Scales, glass cutters, lard presses, and hardware specialties. N 71. 280

1370 Rowland, B., & Co., Philadelphia, Pa.—Shovels, spades, and scoops; draining and ditching tools. N 71. 280

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

1371 Yerkes & Plumb, Philadelphia, Pa.—Edge tools, hammers; railroad, mining, and blacksmiths' sledges. N 70. 280

1372 Bailey, Leonard, & Co., Hartford, Conn.—Bench planes, try squares, bevels. N 68. 280

1373 Mayo, M. C., Boston, Mass.—Plane. P 71. 280

1374 Miller, Edward, & Co. Meriden, Conn.—N 48.
a Machine oilers. 280
b Tinners' hardware. 284

1375 Bemis & Call Hardware & Tool Co., Springfield, Mass.—Machinists' tools. P 72. 280

1376 Newton, C. C., Dunkirk, N. Y.—Twisted drill taps, dies, and reamers. T 60. 280

1377 Ives, W. A., & Co., New Haven, Conn.—Wood-boring implements, bit braces. N 72. 280

1378 Mills, E., & Co., Philadelphia, Pa.—Braces, bits, bevels, screwdrivers, spokeshaves, squares, and saw pads. P 68. 280

1379 Donaldson, J. W., Massillon, Ohio.—Block stamps for stamping garments for braiding and embroidery. P 68. 280

1380 Bailey Wringing Machine Co., New York, N. Y.—Metallic bench planes, spokeshaves, box scrapers, etc. N 69. 280

1381 Klein, Logan, & Co., Birmingham Tool Manufactory, Birmingham, Pa.—Picks, mattocks, fire shovels, etc. N 71. 280

1382 Crossman, A. W., & Son, West Warren, Mass.—Carpenters' hand tools. N 70. 280

1383 Nixon, G. W. C., New York, N. Y.—Engravers' tools. N 68. 280

1384 Ohio Tool Co., Columbus, O.—Planes, screws, edge tools, plane irons, handles, etc. N 71. 280

1385 Palmer, Wm. F., Berry street, bet. Fourth & Fifth streets, San Francisco, Cal.—Edge tools. All tools warranted of excellent cutting qualities. N 70. 280

1385*a* Rue, Theodore, Philadelphia, Pa.—Stencils and tools, nickel-plated signs and numbers, steel stamps. T 54. 280

1386 Taylor, Thomas, cor. Eddy & Friendship streets, Providence, R. I., P. O. box 993.—Bloodstone burnishers. Bloodstone burnishers and reflectors made to order. N 71. 280

1387 Smyth & Pennington, Paterson, N. J.—Files and rasps. N 69. 280

1388 Whitney Manufacturing Co., South Ashburnam, Mass.—Tools used in manufacturing chairs. W 50. 280

1389 Franklin, Mrs. Esther P., Philadelphia, Pa.—Marking stencils and branding irons. T 58. 280

1390 Sandusky Tool Company, Sandusky, O.—Planes, plane irons, bench and hand screws, chisel and file handles. P 71. 280

1391 Hopkins, C., Waltham, Mass.—Watchmakers' tools. N 68. 280

1392 Tower, John J., New York, N. Y.—N 68.
a Carpenters' planes, wrenches, adjustable clamps. 280
b Handcuffs and police implements, padlocks. 284

1393 Harrison & Kellogg, Troy, N. Y.—N 68.
a Screw wrenches. 280
b Plain, tinned, japanned, and nickel-plated malleable iron castings to order, in all varieties; extra refined air-furnace irons. (Low freights open all the year.) 283

1394 Wills, Edwin S., Philadelphia, Pa.—N 69.
a Tools. 280
b Wood screws, etc. 284

1395 Miller's Falls Co., Miller's Falls, Mass.—P 71.
a Mechanics' tools. 280
b Hardware. 284

1396 Lloyd, Supplee & Walton, Philadelphia, Pa.—P 70.
a Hollow auger, spokeshave. 280
b Locks. 284

1397 Vatterlein, John, Plainfield, N. J.—N 69.
a Carpenters' ganges. 280
b Gate hardware. 284

1398 Lowentrant, P., Newark, N. J.—N 70.
a Mechanics' tools. 280
b Hardware. 284

1399 Hart, Bliven, & Mead Manufacturing Co., New York, N. Y.—P 70.
a Carpenters' tools. 280
b Carpenters', saddlers', and carriage hardware; gong door bells. 284

1400 Hotchkiss's Sons, Bridgeport, Conn.—N 72.
a Hand drills, saw sets, currycombs. 280
b Pruning shears. 281
c Harness snaps, bull rings. 284

1401 Beaver Falls Cutlery Co., Beaver Falls, Pa.—Table, pocket, and miscellaneous cutlery. Special exhibits, large carving knife and fork, nine and a half feet long, cost $1500; revolving knife, with three hundred and sixty-five blades. N 70. 281

1402 Barney, E. H., Springfield, Mass.—Skates, perforating stamp, show case and counter combined. Barney & Berry's celebrated "Club All-clamp and Rink Skates," patented 1859, 1866, 1868, 1873. I show the advantage of a screw fastening for operating clamps on metal-topped skates; also, originality of the designs, fine quality, workmanship, and finish. P 68. 281

1403 Will & Finck, San Francisco, Cal.—California carving sets and cutlery, bar tools. P 71. 281

1404 Union Hardware Co., Wolcottville, Conn.—Skates, skate straps, tool handles, wood turning, dog collars, etc. N 69. 281

1405 Badger, Benj. F., Charlestown, Mass.—Razor strops. Leading styles, "Genuine Emersons," established 1810; "Souvenir," for presentation; "German Belt," with non-extensible base; "Badger's super-quality;" "Patent X;" "Square." N 72. 281

1406 Goldschmidt, Herrmann, New York, N. Y.—Razor strops. N 71. 281

1407 Florence Sewing Machine Co., Florence, Mass.—Skates. N 71. 281

1408 Herder, L., & Son, Philadelphia, Pa.—Shears and scissors. N 69. 281

1409 Russell, John, Cutlery Co., Green River Works, New York, N. Y.—Table cutlery, butchers', hunters', painters', and druggists' knives, etc. N 67. 281

1410 Shipley, Howard W., Philadel-phia, Pa.—Pocket cutlery. P 71. 281

1411 Seymour, Henry, & Co., New York, N. Y.—Tailors', bankers', and sheep shears, trimmers, and scissors. N 71. 281

1412 Evans, W. D., & Co., Philadel-phia, Pa.—Razor strops and oilstone hone. N 72. 281

1413 Meriden Cutlery Co., New York, N. Y.—Table cutlery. N 69. 281

1414 Holley Manufacturing Co., Lake-ville, Conn.—Pocket cutlery. P 71. 281

1415 Lamson & Goodnow Manufactur-ing Co., Shelburne Falls, Mass.—Table and butchers' cutlery. N 70. 281

1416 United States Steel Shear Co., West Meriden, Conn.—Solid cast steel scissors and shears. N 71. 281

1417 Miller Bro. Cutlery Co., West Meriden, Conn.—Pocket cutlery. N 70. 281

1418 Heinisch's, R., Sons, Newark, N. J.—Tailors' shears, scissors, and trimmings. N 69. 281

1419 Wiss, J., Newark, N. J.—Cutlery, shears, and scissors, hand and pole pruning shears. P 68. 281

1420 Plimpton, J. L., New York, N. Y. —Parlor skates. P 71. 281

1421 Friedman & Lauterjing, New York, N. Y.—Razors. P 70. 281

1422 Funke, Leopold, St. Louis, Mo.— Knife with three hundred and sixty-six blades. T 60. 281

1423 Robbins, Clark & Biddle, Phila-delphia, Pa.—Cutlery. N 43. 281

1424 Gesswein & Reichhelm, New York, N. Y.—Polishing implements and materials. N 70. 281

1425 Northfield Knife Co., Northfield, Conn.—Pocket cutlery. N 71. 281

1426 Breeden & Nelke, New York, N. Y.—Spring scissors and shears. P 71. 281

1427 Goodell Company, Antrim, N. H. —Cutlery and shoe knives. N 71. 281

1428 Marx Bros., New York, N. Y.— Folding pocket scissors. N 69. 281

1429 Winslow, Samuel, Worcester, Mass.—Skates. H 71. 281

1430 Brady, Edward, Philadelphia, Pa. —U 63.
a Metal boot fastening. 281
b Model of iron fort. 283

1431 Willis, Aug. L., Philadelphia, Pa.—Ice creeper. H 71. 281

1432 Peck & Snyder, New York, N. Y. —Skates. H 71. 281

1433 New York Knife Co., Walden, N. Y.—Table, pen, and pocket cutlery. N 67 281

1433*a* Louis, Julius, & Co., Jefferson-ville, Ind.—Oilstones. N 68. 282

1434 Mitchell, J. E., Philadelphia, Pa. —Carpenters', engravers', opticians', and cutlers' grindstones; oilstones, razor hones, etc. P 67. 282

1434*a* Boyd & Chase, New York, N. Y. —Arkansas and Washita oilstone. N 69. 282

1434*b* Zucker & Levett, New York, N. Y.—Hard and soft rouge and composition for polishing metals. T 53. 282

1435 Baeder, Adamson, & Co., Philadelphia, Pa.—N 68.
a Sand and emery paper, emery cloth, emery, corundum, flint. 282
b Glue. 652
c Curled hair. 669

1435*a* Nittinger, Edward, Philadel-phia, Pa.—Quartz paste for sharpening knives, etc. T 52. 282

1435*b* Tucker, Geo., New York, N. Y.— Polishing compositions. N 68. 282

1435*c* White, T. R., Philadelphia, Pa.— Sandilene, for cleaning marble, metal, glass, etc. T 54. 282

1436 Harrison, W. H., & Bros., Phila-delphia, Pa.—Low and elevated fire grates, fenders, fireplaces, etc. T 52. 283

1436*a* Garland, Benj., Philadelphia, Pa.—Iron bridge and fence railings. V 62. 283

1437 Dixon, Thos. S., & Sons, Phila-delphia, Pa.—Grates, fenders, fireplace fittings, and gas logs. T 49. 283

1437*a* Manly, M. M., & Son, Philadel-phia, Pa.—Wrought iron hand rails, mouldings, and bridge railings. T 60. 283

1438 Jackson, Wm. H., & Co., New York, N. Y.—Grates, fenders, fireplaces, fire irons, and fancy coal boxes. N 67. 283

1439 Lalance & Grosjean Manufactur-ing Co., New York, N. Y.—Stamped iron culinary ware. T 68. 283

1440 Reyburn, Hunter, & Co., Philadel-phia, Pa.—Weather vanes. N 62. 283

1441 Tin Plate Decorating Co., New York, N. Y.—Decorated tin plates, boxes, cans, etc. N 70. 283

1442 Miller & Krips, 716 & 718 Cherry street, Philadelphia, Pa.—Plain and ornamental bronze; white bronze, brass, German silver, and zinc castings. Also, sole manufacturers of bronze reliefs in a new style of mounting; bronze reliefs made to order, from life or photograph. P 72. 283

1443 Demuth, Wm., & Co., 501 Broad-way, New York, N. Y.—Show figures in metal and wood, meerschaum and brier pipes, with rubber and amber mouthpieces; smokers' articles in general. P 69. 283

1444 Mott, J. L., Iron Works, New York, N. Y.—Fountains, vases, statuary, settees, aquaria, aquarium fountains, drinking fountains, candelabra, lamp pillars, crestings, castings, railings, gates, summer houses, band stands, stable fixtures, etc. N 54. 283

1445 Paxon, Comfort & Co., New York, N. Y.—Zinc monuments. T 64 *and outside*. 283

1446 Woods, Sherwood, & Co., Lowell, Mass.—White lustral wire ware, comprising an extensive line of household, table, and fancy goods, such as fruit, cake and jewel baskets, tea and coffee strainers, castors, toilet articles, etc. N 72. 283

Wrought and Cast Metal Work, Hardware.

1447 Ansonia Brass & Copper Co., Ansonia, Conn.—Brass and nickel-plated kettles. N 57. 283

1448 Rohrman, J. Hall, & Son, Philadelphia, Pa.—Tea, coffee, and spice caddies; water coolers and decorated japanned tinware. P 70. 283

1449 Hussey, C. G., & Co., Pittsburg, Pa.—Copper sheet, circle, and bottoms; planished and ingot copper, copper lightning rods, sheet brass, brass kettles. N 72. 283

1450 Champion Fence Co., Kenton, O.—Wrought and malleable iron fence and gate. The advantages claimed for the champion iron fence are: 1st—The longitudinal rail is rolled in T shape, thus giving the greatest lateral strength, also horizontal strength, when put up in fence, without bolts, rivets, or forging whatever, leaving the iron as it comes from the rolls. 2d—As the arched or cylindrical form of the iron resists the greatest strain, the pickets are rolled concave, convex, with a flange on each side, forming the strongest picket that can be made from the same amount of iron. 3d—The ornaments used, together with the different connecting parts, are made of refined malleable iron, or stamped from wrought iron plates, and of any desired form, and at one-tenth the cost of making them at the forge. 4th—The pickets are driven into the ornaments and passed to nearly the top of the picket, at the rear of the ornaments. There are lugs and clips, which are clinched, combining ornament and picket together, forming a strong and durable top-head for the picket. 5th—The fence is put together with clips; these are slipped on the T rail, and the sides of the ornaments form circles, or segments of circles, thus rendering them adjustable to any and all grades or angles. 6th—The panels are connected with a compound clamp, which holds them firmly together, at the same time allowing for the expansion and contraction of the iron. 7th—That we have in the combination of our rail and picket the strongest and most ornamental fence that can be made, from the same amount of material. 8th—That we can, by our adjustable posts, keep our fence in perfect line; also, that we can set the fence upon coping or stone walk of any grade, the same as upon our iron foundation. 9th—That we can pack the fence for shipment, in compact bundles, and put it upon the ground as conveniently as a wooden fence can be put up. 10th—That we manufacture the fence without the use of any costly and cumbersome machinery, being virtually made when the iron comes from the foundry and the rolls. 11th—The base upon which the fence is set is of cast iron, eighteen inches wide at the bottom, and six inches at the top; twenty-eight inches in length, which is set in the ground; upon this foundation is placed a wrought iron post, adjustable front and rear, and also adjustable at the top, while at the bottom it would be stationary, or *vice versa*. Upon this post we also adjust the height of the fence. One of the beauties of our invention is, that we make a fence that looks light, yet strong and durable. (*Ohio State Building.*) 283

1451 Bevin Bros. Manufacturing Co. East Hampton, Conn.—N 72.

a Bell metal kettles. 283

b Bells. 284

1452 Armbruster, Jacob H., Philadelphia, Pa.—Organ and sash weights. (*Organ, East Gallery.*) 284

1453 Yale Lock Manufacturing Co., Stamford, Conn.—Locks, ornamental bronze hardware, post-office boxes. P 72. 284

1453*a* Bray, Edw. L., Boston, Mass.—Balance spring curtain fixture. (*East Gallery.*) 284

1454 Stewart & Mattson, Philadelphia, Pa.—Building hardware, locks, door knobs and trimmings. N 69. 284

1454*a* Dexter Spring Co., Hulton, Pa.—Carriage springs. T 60. 284

1455 Nock, Geo. W., Philadelphia, Pa.—Locks and padlocks. N 70. 284

1455*a* Cleveland Steel Horseshoe Co., Cleveland, O.—Steel horseshoes and bars, hand shoe formers. T 59. 284

1456 Trenton Lock & Hardware Co., Philadelphia, Pa.—Patent lever and spring, with corrugated bolt door locks, latches, knobs, and other hardware. N 68. 284

1456*a* Adams, Wm. R. M., New York, N. Y.—Door bolt and chain check. N 72. 284

1457 Shannon, J. B., Philadelphia, Pa.—Hand-made locks and building hardware. N 72. 284

1457*a* Smith & Egge, Bridgeport, Conn.—Padlocks, hasps, chains, etc. N 70. 284

1458 Wells & Hope Co., Philadelphia, Pa.—Metallic show cards and advertising signs; decorative glass printing, etc. P 72. 284

1458*a* Stafford Manufacturing Co., New York, N. Y.—Stencil combinations, machine cut alphabets and figures; key-rings, checks, and badges. N 69. 284

1459 Corbin, P. & F., New Britain, Conn.—House trimmings and miscellaneous hardware. N 72. 284

1459*a* Brooke, E.& G., Birdsboro', Pa.—Nails. T 67. 284

1460 American Stair-Rod Co., New York, N. Y.—Stair rods and stair carpet fasteners. N 71. 284

1461 Stanley Works, New Britain, Conn.—Wrought iron butts, japanned, bronzed, and plated; hinges, door bolts, etc. P 71. 284

1461*a* Orbeton, W. W. S., Boston, Mass.—Screw braces and screw-brace blind hinges. N 68. 284

1462 Globe Nail Co., Boston, Mass.—Machine-made horseshoe nails. N 71. 284

1463 Tuchfarber, F., & Co., Cincinnati, O.—Enameled iron show cards. P 72. 284

1464 Wiler, Wm., Philadelphia, Pa.—Stair rods and plates. N 71. 284

1465 Walton, E. S., & Co., Philadelphia, Pa.—Lock hardware and fine bronze work. N 72. 284

1467 Dunbar, Hobart, & Whidden, South Abington, Mass.—Tacks, brads and nails, steel shanks, heel plates, etc. P 72. 284

1468 Hildebrand & Wolf, Philadelphia, Pa.—Trunk locks, padlocks, dead-latches, door springs, etc. P 69. 284

For location of objects, indicated by letter and figure, see Key to Notation, p. 25; ground plan, p. 26

1469 Carr, Crawley, & Devlin, Philadelphia, Pa.—Building, cabinet, carriage, and saddlery hardware; malleable iron, brass, and steel castings. N 70. 284

1470 Hall's Safe & Lock Co., Cincinnati, O.—Bank and time locks. H 67. 284

1471 Whitaker & Skirm, Trenton, N. J.—Iron chains, chute nails. T 65. 284

1472 Gould's, M., Sons, 83 & 85 Duane street, New York, N. Y., and 514 Commerce street, Philadelphia.—Stair rods, step plates, dog collars, upholstery, and trunk hardware. Manufacturers of stair rods, stair plates, dog collars, stepladders, trunk rivets, and all kinds of trunk hardware; also, a general line of upholstery hardware. Factory, Newark, N. J. N 71. 284

1473 Morton, Thos., New York, N. Y.—Sash chain and attachments for suspending windows, doors, etc. T 49. 284

1474 Mallory, Wheeler, Co., New Haven, Conn.—Door locks and knobs, padlocks, etc. N 69. 284

1475 Gaylord Manufacturing Co., Chicopee, Mass.—Cabinet locks. N 70. 284

1476 Union Manufacturing Co., New Britain, Conn.—Plain and ornamental butt hinges. N 69. 284

1477 Mersereau, W. T. & J., Newark, N. J.—Stair rods and plates, dog collars and muzzles, bridle fronts, and upholsterers' hardware. N 71. 284

1478 Marvin's Safe Co., New York, N. Y.—Locks. H 69. 284

1479 Bohannan, Wilson, Brooklyn, N. Y.—Brass spring padlocks and car locks. P 68. 284

1480 Union Steel Screw Co., Cleveland, O.—Bessemer steel wood screws, with samples showing stages of manufacture. T 59. 284

1481 Clark & Co., Buffalo, N. Y.—Nickel-plated builders' hardware. N 71. 284

1482 Van Wagoner & Williams, 82 Beekman street, New York, N. Y.—Spring hinges and door springs of the leading kinds, for screen and other doors, gates, etc. All articles of superior manufacture. N 70. 284

1483 Gong Bell Manufacturing Co., East Hampton, Conn.—Bells. P 72. 284

1484 Romer & Co., Newark, N. J.—Locks for railroad switches, cars, prisons, stores, etc. N 71. 284

1485 Cowell, J. J., & Co., Newark, N. J.—Builders' and trunk hardware. Manufacturers of trunk and builders' hardware, sash pulleys, trunk rollers, catches, handle caps, stay hinges, clamps, etc. Also malleable and gray iron small castings. N 71. 284

1486 Middletown Tool Co., Middletown, Conn.—Plane irons, harness snaps, washer cutters, hitching chains, planemakers' hardware, etc. P 71. 284

1487 Whipple, H. J. P., West Meriden, Conn.—Door-knob attachment. P 68. 284

1488 McEachern, Daniel, Wilmington, Del.—Cast iron Centennial chain, each link representing a State and giving the Governor's name. Q 78. 284

1490 Tiebout, W. & J., New York, N. Y.—Brass, galvanized, and ship chandlery hardware. H 68. 284

1491 Parker & Whipple Co., West Meriden, Conn.—Door-knob attachment and adjustment. N 69. 284

1492 Thorn, Stephen S., 39 Oliver street, Newark, N. J.—Brass, copper, and iron wire ferrules, from ⅜ to 3½ inches, for paint brushes—these ferrules warranted not to burst or expand; bonnet and insulating wire. N 69. 284

1493 Worrell Bank Lock Manufacturing Co., Philadelphia, Pa.—Bank lock. H 70. 284

1496 Herring & Co., New York, N. Y.—Safe, bank, and time locks. H 69. 284

1497 Neuman, R., & Co., Newark, N. J.—Satchel and traveling bag frames, and bag trimmings. P 68. 284

1498 Van Alen & Co., Northumberland, Pa.—Cut nails and spikes. T 66. 284

1499 Blake Bros. Hardware Co., New Haven, Conn.—Hardware for builders', cabinet makers', and carriage makers' use. P 69. 284

1500 Miller, D. K., Lock Co., Philadelphia, Pa.—Locks. P 70. 284

1501 Eagle Lock Co., Terryville, Conn.—Trunk and cabinet locks. H 67. 284

1502 Judd, Hubert L., New York, N. Y.—Upholstery and fancy hardware. N 69. 284

1503 Coleman Eagle Bolt Works, Philadelphia, Pa.—Carriage bolts, nuts, and axle clips. P 71. 284

1504 Meeker, D. M., & Son, Newark, N. J.—Iron, bronze, and German silver castings. N 71. 284

1505 Hall, P. W., Austin, Texas.—Combination door, drawer, and trunk locks. P 68. 284

1506 Norwalk Lock Co., South Norwalk, Conn.—Door locks, knobs, padlocks, and builders' hardware. N 70. 284

1507 Terwilliger & Co., New York, N. Y.—Safe locks. H 72. 284

1508 Arms, Bell, & Co., Youngstown, O.—Nuts, bolts, and washers. V 63. 284

1509 Wheeling Hinge Co., Wheeling, W. Va.—Hinges, butts, wrought goods, and washers. N 68. 284

1511 Vanduzen & Tift, Cincinnati, O.—Bells. T 53. 284

1512 American Screw Co., Providence, R. I.—Gimlet pointed screws of iron, brass, and steel; coach, hand rail, and machine screws; rivets; stove and tire bolts. P 69. 284

1513 Branford Lock Works, New York, N. Y.—Rim and mortise door locks and latches, brass and steel keys, door knobs, lock furniture. P 69. 284

1514 Easton Lock Works, Easton, Pa.—Rim and mortise locks and latches; safety locks and night latches. N 72. 284

1515 Wilson, John, Chicago, Ill.—Fire nozzle. B 69. 284

1515*a* Keystone Hardware Manufacturing Co., Reading, Pa.—Hardware. N 69. 284

1516 Quigley, W. E., Waterbury, Pa.—Hand-made horseshoes. T 71. 284

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

1517 Evans, F. H., Brooklyn, N. Y.—Expansion bolts and screw fastenings; photographs of other manufactures. P 69. 284

1519 Field, A., & Sons, Taunton, Mass.—Tacks, brads, nails, etc. P 68. 284

1520 Valentine & Butler Safe & Lock Co., New York, N. Y.—Safe locks. H 70. 284

1521 Lewis, Oliver, & Phillips, Pittsburg, Pa.—Wagon and heavy hardware, fence pickets, etc. T 64. 284

1522 New Britain Lock Co., New Britain, Conn.—Key register; dial, bank, safe, and time locks. N 72. 284

1523 American Wire & Screw Nail Co., cor. Madison and State streets, Covington, Ky.—Common, bright, smooth, and barbed wire nails with sharp points; small, large, depressed heads and without heads. Moulding nails, wire cigar-box nails, iron and brass oval head escutcheon pins. Wire screw nails (patented). These nails have round, tapering points, and screw thread till under the head. Are to be driven with a hammer as quick as common nails, but turn like screws while driving under the hammer. Wire nails of every description, also blued, tinned, and colored nails. P 71. 284

1524 Buckman, Ira, Brooklyn, N. Y.—Torsion spring hinge, automatic window lock, and door fixtures. N 68. 284

1525 Riverside Iron Works, Wheeling, W. Va.—Nails and spikes. T 64. 284

1526 Turner & Seymour Manufacturing Co., Walcottville, Conn.—Brass and iron upholstery goods and hardware, and notion goods. N 68. 284

1527 Sargent & Greenleaf, Rochester, N. Y.—Chronometer, bank, safe, and flat key locks. H 72. 284

1528 Wilcox, Wm., Manufacturing Co., Middletown, Conn.—Padlocks, plate locks, and keys. N 71. 284

1529 King, J. M., & Co., Waterford, N. Y.—Stocks and dies, plug and taper taps, pliers, etc. N 71. 284

1530 Keyless Padlock Co., New York, N. Y.—Keyless padlocks. N 70. 284

1531 Lyon, Sylvanus, New York, N. Y.—Locks. N 72. 284

1532 Johns, H. W., New York, N. Y.—Tacks, etc. P 47. 284

1533 Barton, W. E., East Hampton, Conn.—Bells. N 71. 284

1534 Clarke Combination Lock Co., Baltimore, Md.—Combination keyless locks. P 68. 284

1535 Orbeton, Wm. W., Boston, Mass.—Screw braces and hinges. N 68. 284

Fabrics of Vegetable, Animal, or Mineral Materials.

1536 Glendale Elastic Fabrics Co., Easthampton, Mass.—Woven and braided elastic rubber fabrics. F 68. 285

1537 Easthampton Rubber Thread Co., Easthampton, Mass.—India rubber thread and rubber in process of manufacture. F 68. 285

1538 Willis, Aug. L., Philadelphia, Pa.—Rubber rails for tracks. H 71. 285

1539 Sellers, Chas. P., Philadelphia, Pa.—Corn brooms and whisks. T 46. 286

1540 Reynolds, C. T., & Co., New York, N. Y.—Brushes. P 42½. 286

1540*a* Isaacs, M. C., & Co., Chicago, Ill.—Wire brooms, casting, and flue brushes. N 71. 286

1541 Leiner, M., New York, N. Y.—Brushes and ear cleaners. T 65. 285

1541*a* Kerr, Hugh S., Philadelphia, Pa.—Sponge brushes. B 71. 286

1542 Lovell, G. H. & M. F., Philadelphia, Pa.—Ear brush. T 50. 286

1542*a* Pollock & Son, Newark, N. J.—Brushes, buffs, etc. N 68. 286

1543 Miles, Bros., & Co., New York, N. Y.—Brushes. N 69. 286

1544 Grand Rapids Brush Co., Grand Rapids, Mich.—Brushes. N 72. 286

1545 Clinton, E., & Co., Philadelphia, Pa.—Brushes. N 66. 286

1546 Bowman, C. A., & Bro., Madison, Ind.—Clothes brushes made of broom corn. T 46. 286

1547 Johns, H. W., New York, N. Y.—Brushes. P 47. 286

1548 Florence Manufacturing Co., Florence, Mass.—Hair brushes. B 70. 286

1550 Bailey, John T., & Co., Philadelphia, Pa.—Rope and twines. B 68. 287

1551 Baumgardner, Woodward, & Co., Philadelphia, Pa.—Cordage and clothes lines, tarred yarns, hemp packing. B 70. 287

1551*a* Lawrence, Waterbury, & Co., New York, N. Y.—Cordage. T 78. 287

1552 Vyse, Robt. H., Brooklyn, N. Y.—Rawhide rope, sash cord, and round belting. B 68. 287

1553 Hooper, Wm. E., & Sons, Baltimore, Md.—Twine. D 78. 287

1554 Hart, A. H., & Co., 90 White street, New York, N. Y.—Elm Flax Mills; flax twines for upholsterers, sail, bag, broom makers, etc.; flax yarns, shoe threads, etc. B 68. 287

1555 Wall's, William, Sons, New York, N. Y.—Ships' rigging; rope and cordage. E 78. 287

1556 Tucker, Carter, & Co., New York, N. Y.—Wire and manila ropes. B 69. 287

1557 Hart, Clarence A., Philadelphia, Pa.—Painted silk banners. B 78. 288

1557*a* Reynolds, J. P., & Co., New York, N. Y.—Escutcheons of military and naval service. T 44. 288

1558 Lilley, M. C., & Co., Columbus, O.—Masonic goods and society supplies. Manufacture society furniture, jewels, regalia, uniforms, banners, band and military goods. Price lists upon application. P 65. 288

1559 Wilson, J. H., Philadelphia, Pa.—Regalias, flags, and banners. F 70. 288

1560 New England Bunting Co., Lowell, Mass.—Bunting. B 75. 288

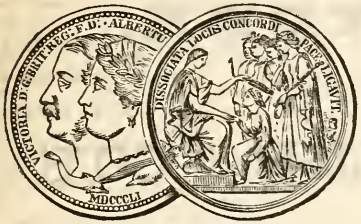
1561 Salisbury & Co., New York, N. Y.—Muslin flags; engraving, designing, lithographing, and printing; original manufacturers of American, election, and other decorations—all nations—in sets or single. H 77. 288

For location of objects, indicated by letter and figure, see Key to Notation, p. 25; ground plan, p. 26.

ESTABLISHED 1841.

HERRING'S SAFES.

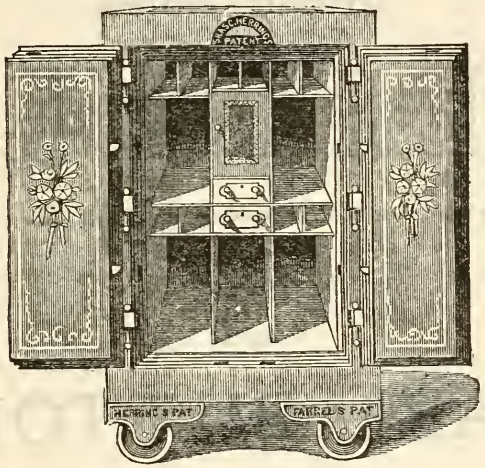
AWARDED HERRING'S SAFES.



WORLD'S FAR, LONDON.



EXPOSITION UNIVERSELLE, PARIS.



"FIRE TRIED, TIME PROVEN."

HERRING'S BANKERS' SAFES.

Security against the powerful tools and ingenious devices of the scientific Burglar.

Herring's Infallible Bank Lock

Affords the security of both a Combination and Time Lock,

INSURING PROTECTION AGAINST MASKED BURGLARS

MANUFACTURED BY

HERRING & CO.,

251 & 252 BROADWAY, NEW YORK,
56-60 SUDBURY ST., BOSTON.

E. C. PRATT, BRO. & CO.,

29 MERCER ST.,

NEW YORK,

SOLE AGENTS FOR

JOHN ENGLISH & CO.'S

CELEBRATED PINSTUCK

NEEDLES

See Show Case in Main Building, Class 254, Siding 4.

ALSO,

PEARL BUTTONS,

ON PATENT CARDS, MOUNTED IN SQUARES OF ONE DOZEN EACH.

FISH LINES,

FISH HOOKS,

SMALL WARES,

ETC., ETC.

Paper, Wooden, Metallic Fabrics, etc.

1562 Piton, Camille, Philadelphia, Pa. —Trophies representing America, Europe, Asia, and Africa. (*Nave and Centre Transept.*) 288

1563 Tremain, Chas., Manlius, N. Y.— Paper barrels; cheese and fruit packages. T 57. 289

1564 Trasel, Edward G., New York, N. Y.—Papier maché household ware, chamber sets, pails, cuspadors, etc. P 64. 289

1565 Wakefield Rattan Co., Boston, Mass.—Rattan baskets. T 57. 289

1566 Beaudett, Homer J., Greenpoint, N. Y.—Fancy scroll work. P 50. 289

1567 Waters, E., & Sons, Troy, N. Y. —Boat barrels, camp stools, seats, packages for volatile liquids, etc., made of paper. B 73. 289

1568 Jennings Brothers, 352 Pearl street, New York, N. Y.—Japanese paper ware. Their manufacture of pails, basins, pitchers, spittoons, cuspadors, etc., are thoroughly waterproof, durable, and ornamental; are not affected by the climate. T 68. 289

1569 Preston & Merrill, Boston, Mass. —Wooden boxes. P 48. 289

1570 Dorman Manufacturing Co., New York, N. Y.—Baskets, urns, carriage bodies, etc. P 59. 289

1571 Paxon, Comfort, & Co., Philadelphia, Pa.—Burial robes and dresses; casket trimmings. B 73 *and outside.* 290

1572 Smith, Wm. M., West Meriden. Conn.—Casket trimmings, handles, name plates, and ornaments. N 43. 290

1573 Rogers, C., & Bros., West Meriden, Conn.—Gold and silver plated coffin and casket trimmings. F 72. 290

1574 Chase, F. & P. F., Penn Galvanic Works, Philadelphia, Pa.—Galvanized iron goods, sheet iron, water pipe, boilers, hardware, shipsmithing, railings; bar, hoop, and chain iron. P 68. 291

1574*a* Danby, Geo., & Co., Philadelphia, Pa.—Galvanized sheet iron, mantels, cornices, railings, etc. Y 59. 291

1575 Straus, J. E., & Co., Philadelphia, Pa.—Galvanized, wrought, and cast iron work. P 71. 291

1577 Philadelphia Galvanizing Co., Philadelphia, Pa.—Galvanized sheet iron pipe, railing, wirework, chairs, boilers, sinks, coal hods, etc. P 69. 291

1578 Kittredge Cornice & Ornament Co., Salem, O.—Sheet metal cornices, doors, shutters, and pavilion; architectural ornaments, light wrought iron work. (*Outside.*) 291

1579 Falstrom & Tomqvist, Passaic City, N. J.—Galvanized iron cornice and ornamental sheet iron work for buildings. P 68. 291

1580 Philadelphia Architectural Iron Co., Philadelphia, Pa.—Galvanized iron and sheet zinc gate entrance. P 70. 291

1581 McCullough Iron Co., Philadelphia, Pa.—Galvanized sheet iron. P 70. 291

1582 Brown & Owen, Philadelphia, Pa.—Cemetery inclosure, ornamental iron work, and wrought iron pipe. (*Outside.*) 291

1583 Cornell, J. B. & J. M., 141 Centre street, New York, 9 Studio Buildings, Boston, 427 Walnut street, Philadelphia. —All kinds of heavy and light wrought and cast iron work for buildings and bridges; cast iron fronts, stairs, columns, girders, lamp posts, etc.; wrought iron columns, girders, beams, railings, sheet lath, etc.; steel and iron rolling shutters, fire-proof columns, burglar proof safes and vaults. Works cover six acres of ground. P 70. 291

1584 Marshall Brothers & Co., Philadelphia, Pa.—Galvanized and leaded sheet iron work. P 71 *and outside.* 291

1585 Zinc Roofing & Ornamenting Works, Chicago, Ill.—Ornaments in pressed and cast zinc, brass, and copper; zinc statues, emblematic signs, etc. P 69. 291

1586 Buringer Brothers, Dayton, O. —Ohio coat-of-arms of galvanized iron. (*In gable of Ohio State Building.*) 291

1586*a* Smith, S. A., New York, N. Y.— Rolling chairs. (*In use in the buildings.*) 292

Carriages, Vehicles, and Accessories.

1587 Blake Bros. Hardware Co., New Haven, Conn.—Trucks for moving open barrels and kegs. P 69. 294

1588 Newichawanick Co., South Berwick, Me.—Horse blankets and goods for horse clothing. R 78. 296

1588*a* Hopkins & Robinson Manufacturing Co., Akron, O.—Animal pokes. 296

1589 Pettingell & Sawyer, East Cambridge, Mass.—Horse and wagon covers. F 76. 296

1590 Eager, P. B., Tower, & Co., Boston, Mass.—Oiled horse covers. C 78. 296

1592 Faxon, E., & Co., Philadelphia, Pa.—Wool extract. P 43. 667

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

GREAT BRITAIN.

(*North of Nave, Columns 23 to 38.*)

Chemical Manufactures.

Chemical Manufactures.

1 **Hutchinson, John, & Co., Widnes,** Lancashire.—Soda ash, soda crystals, caustic soda, bicarbonate of soda, salt cake, bleaching powder, and sulphur recovered from vat waste. 200

2 **Corbett, John, Stoke Prior Salt Works,** Worcestershire.—Refined salt. 200

3 **Richards, Kearne, & Gasquoine, Malkins Bank Alkali Works,** Sandbach, Cheshire.—Brine, sulphate of ammonia, soda ash, bicarbonate of soda. 200

4 **Gaskell, Deacon, & Co., Widnes,** Lancashire.—Carbonated soda ash, and refined alkali, bleaching powder, soda crystals, bicarbonate of soda, and chloride of calcium. 200

5 **Brunner, Mond, & Co., Northwich,** Cheshire. — Alkali or carbonate of soda. 200

6 **The Desoto Alkali Co. (limited),** Widnes, Lancashire.—Caustic soda, and black ash or ball soda. 200

8 **Runcorn Soap & Alkali Co. (limited),** Liverpool.—Bleaching powder, soda ash, crystals of soda, caustic soda, and refined resin. 200

9 **Muspratt Bros, & Huntley, Liverpool.**—Soda ash, caustic soda, bleaching powder, soda crystals, and bicarbonate of soda. 200

10 **Muspratt, James, & Sons, Liverpool.**—Soda ash, cream caustic soda, bleaching powder, chlorate of potash, salt cake, and brimstone. 200

12 **Spence, Peter, Manchester.**—Crystallized alum, in block and crystals, and a new alumino-ferric compound for precipitating sewage and for paper making. 200

13 **Higgin, Thomas, & Co., Liverpool.**—Salt. (*Agricultural Hall.*) 200

14 **The Newcastle Chemical Works Co.** (limited), Newcastle-on-Tyne.—Soda ash, alkali, bleaching powder, crystals and bicarbonate of soda, caustic soda, chloride of calcium. 200

15 **White, John & James, Shawfield Works,** Glasgow.—Bichromate of potash. 200

16 **Liver Alkali Works Co. (limited),** Liverpool.—Caustic soda. 200

17 **Young, James, Kelly, Wemyss Bay,** N. B.—Illustrations of manufacture of carbonate of soda, chlorate of potash, products from petroleum, coal, and shale, preservation of iron ships. 200

18 **Greenbank Alkali Co., St. Helen's,** Lancashire. — Chemical products, pure caustic soda, chlorate of potash. 200

20 **Jennings, T., Brookfield Chemical Works,** Cork.—Carbonate of and calcined magnesia. 200

21 **Calvert, F. C., & Co., Bradford,** Manchester.
a Carbolic and cresylic acids and derivatives. 200
b Carbolic acid soaps. 201

22 **Parkinson Bros., Burnley.**—Baking-powder. 200

23 **Morson & Son, London.**—General chemicals and specialties, creasote, pepsine, gelatine, etc. 200

24 **Allen & Hanburys, London.**—Paté de jujube and analogous articles. 200

25 **Gerrard, Alfred William, London.**—Pharmaceutical preparations. 200

26 **Chance Bros., Alkali Works,** near Birmingham.—Chemical products. 200

27 **Wyndham, F., & Co., London.**—"Esprit des Œufs" (spirit of eggs), a medicinal compound. 200

28 **Price's Patent Candle Co.** (limited), Belmont Works, London.—Candles, night-lights, glycerine, fatty acids, machinery oils; toilet, household, and mill soaps, glycerine, paraffine, stearine, and tapers. 201

29 **Field, J. C. & J., London.**—Candles, toilet soaps, beeswax, and refined yellow wax, white wax, dyers' soaps, sealing wax, and fancy ornamental candles. 201

30 **Pears, A. & F., Lanadron Soap Works,** Isleworth, near London.—Transparent soap. 201

31 **Wright & Holdsworth, London.**—Dog soap, worm powders, Bauer's baby soap. 201

32 **Cohné, Sigismund, London.**—Chemical and medical soaps. 201

33 **Craig & Rose, Caledonian Oil & Color Works,** Edinburgh.
a Oils. 201
b Paints and colors. 202

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

PRIZE MEDAL,



LONDON, 1862.

BARLOW & JONES,

LIMITED,

Spinners, Printers & Manufacturers by Power,

SILVER MEDAL,



PARIS, 1867.

TOILET AND MARSEILLES QUILTS,

COUNTERPANES, ALHAMBRAS, SHEETS,

SHEETINGS, COTTON BLANKETS, TOWELS TOILET COVERS & MATS,

SKIRTS, QUILTINGS,

WHITE AND PRINTED DAMASKS, PLAIN AND FANCY MUSLINS, &c.

2, Portland Street, Manchester, England.

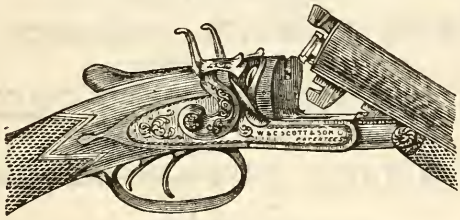
American Agent—Mr. D. A. LINDSAY, No. 54, Howard Street, New York.

W. & C. SCOTT & SON

Winners of the International Gun Trial, NEW YORK, 1873, for Points of Merit of Shooting Qualities, System of Action, Workmanship, &c., &c.

PATENTEES & MANUFACTURERS OF GUNS & RIFLES for

India,
China,
Ceylon,
Australia,
Cape,



Canada and the United States.

London Address, 10, ST. CASTLE ST., REGENT CIRCUS.

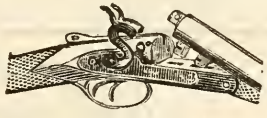
PREMIER GUN WORKS, BIRMINGHAM, ENGLAND.

W. W. GREENER'S

PATENT TREBLE WEDGE-FAST BREECHLOADER,

THE WINNING GUN at the great London Gun Trials, in all the classes, for improved boring. Will kill game at over 100 yards.

The strongest and most durable breech action ever invented, and the easiest to load.



On Sale at **Messrs. Grubb & Co.'s** Philadelphia.

In the Press, "CHOKE-BORE GUNS, AND HOW TO LOAD FOR ALL KINDS OF GAME." By W. W. Greener, Author of "Modern Breechloaders."

ST. MARY'S WORKS, BIRMINGHAM.

DAVID SMITH & CO., LIMITED, Wool Extractors, HALIFAX, and the MILL HILL WOOL & RAG EXTRACTING COMPANY, LIMITED, HUDDERSFIELD,

WHOSE INTERESTS ARE AMALGAMATED.

EXTRACTED WOOLS.

Neither bugs, lice, fleas, moths nor vermin will live in cloths, blankets or rugs made of these Wools; nor will they lodge in any bed, bedding or stuffings made therewith. On account of their chemical properties and the manner in which they are manipulated, goods manufactured with these Wools are not subject to mildew. Contracts may be entered into for regular supplies of them. Samples supplied.



ALEX. HENRY,

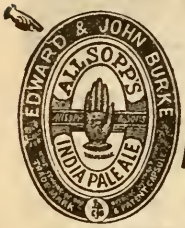
Gun and Rifle Manufacturer,

By Special Appointment to their Royal Highnesses the Prince of Wales & the Duke of Edinburgh.



Manufactory, 12, SOUTH SAINT ANDREW STREET, EDINBURGH, N.B. London Branch, 118, PALL M'LL.

EDWARD & JOHN BURKE'S



CELEBRATED

EXTRA FOREIGN STOUT

AND

ALLSOPP'S BURTON ALES



To be obtained at the Restaurants in the Exhibition Buildings,
And sold by all first-class Liquor Dealers, Restaurateurs, Hotels &c.,
in the whole of the United States.



London, 1874.

JOSEPH HAMBLET,

Piercy Blue Brick Works,

WEST BROMWICH, Staffordshire,

MANUFACTURER OF



Paris, 1875.

VITRIFIED BLUE BRICKS, COPINGS, TILES, PIPES,

AND EVERY VARIETY OF

TERRA METALLIC IMPERISHABLE PAVINGS,

&c., &c.

PRICES AND BOOKS OF ILLUSTRATIONS ON APPLICATION.

Prize Medal



CLEEVE HOOPER, Junr.,

London 1874.



Leather, Hide and Bark Factor,

6, 7 & 8, NEW WESTON STREET.

BERMONDSEY, LONDON, S.E.,

ENGLAND.

Goods Bought or Sold for 2½ % Commission & del credere. Bankers, London Joint Stock Bank.



JOHN G. McGEE & CO.,

BELFAST, IRELAND,

INVENTORS AND SOLE MAKERS OF THE

CELEBRATED "ULSTER" COAT.

See SHOW CASE, Class 250, E 27.

W. BARTLEET & SONS,

MANUFACTURERS OF

NEEDLES, SEWING MACHINE NEEDLES,

FISH HOOKS AND FISHING TACKLE,

ABBEY MILLS, REDDITCH, ENGLAND.

Prize Medals—London, Paris, Berlin, Boulogne, & Bergen.

Chemicals, Ceramics.

34 Williams, Miles, Britannia Varnish Works, Wigan, Lancashire.
a Gas carburetter and drawings; improvement in manufacture of gas and liquid fuel. 201
b Varnishes, varnish paints, enamels, lacquers, and specimens of work. 202

35 Hickisson, Mrs. M. A., London.—Marking ink, pens, linen stretcher, and framed specimens. 202

36 Turner, Chas., & Son, London.—Varnishes, fine colors, gums. 202

38 Lyons, William, Manchester.—Writing and copying fluids and inks, marking ink, ink powders, paper dye tablets. 202

39 Bowman, Charles, London.—Solid ink, stencil plates, stencil brushes, etc. 202

40 Rawlins & Son, Brook Works, Prescot.—Ultramarine and smalts, with raw materials. 202

41 Chambers, T. F., Hull.—Black varnish. 202

42 Johnson Bros., Hull.—Colors, varnishes, machinery oils, and locomotive and anti-friction greases. 202

44 Rowney, George, & Co., London.—Pigments, colors, varnishes, artists' materials. 202

45 Storer, David, & Sons, Glasgow.—Colors, pigments, and wood stains; Venetian, Indian, and other reds; drop black, greens, and other pigment colors. 202

46 Cooper & Co., London.—Writing, register, and japan inks, copying and fluid ink; red, scarlet, blue, and violet inks. 202

47 Silicate Paint Co., Liverpool.—Silicate paints and colors; petrifying liquid for damp walls; enameling and anti-fouling paints; cement for steam joints, anti-incrustation fluid, nitre killer, etc. 202

47*a* Young & Strang, Glasgow.—Gums for calico printing. 202

48 Blackwood, John, & Co., London.—Writing, copying, and indelible marking inks. 202

49 Mackay, John, Edinburgh.
a Spirit varnishes and polishes for coating wood of all colors, white, mahogany, oak, or ebony. 202
b Fluid flavoring essences from spices, fruits, and vegetables. 203

50 Stephens, Henry Charles, London.—Writing fluids and copying inks, ink powders, machine ruling and indorsing inks; stains for wood. 202

51 Crown Perfumery Co., London.—Perfumes and toilet requisites. 203

52 Brooks, Henry, & Co., London.—Perfumery. 203

53 Atkinson, J. & E., London.—Perfumery and toilet articles. 203

54 Jaap, John, Glasgow.—Flavoring essences and other preparations. 203

55 Low, Son, & Haydon, London.—Perfume extracts, toilet soaps. 203

56 Perks, Samuel, Hitchin Herts.—Essential oil of lavender, extract lavender flowers, etc. 203

57 Thiellay, Eugene Henry, London.—Hair tincture, dyes, and bleaching liquid, tonics, and cultivators. 203

58 Rimmel, Eugene, London.—Perfumery and toilet articles; perfume vaporizers, etc. 203

59 Evans, Sons, & Co., Liverpool, and Evans, Lescher, & Evans, London.—Perfumery. 203

59*a* Sturge's Montserrat Co. (limited), Broad street, Birmingham.—Essences. 203

60 Bryant & May, Fairfield Works, London.—Safety matches, wax vestas and vesuvians, decorated metal and other boxes. 204

62 Bickford, Smith, & Co., Tuckingmill, Cornwall.—Safety fuses for blasting operations. 204

63 Pigou, Wilks, & Laurence (limited), London.—Military, sporting, African, and mining powders of every description. 204

64 Lacey, Richard George, Coast Guard Station, Leigh, Essex.—Rocket apparatus for throwing lines from one ship to another. 205

Ceramics—Pottery, Porcelain, Glass, etc.

65 Peake, Thomas, The Tileries, Tunstall, Staffordshire.
a Paving and facing bricks. 206
b Ridge, roofing, and flooring tiles; ornamental tiles for garden borders, skirtings, and mural decorations. 208

66 Hamblet, Joseph, Piercy Blue Brick Works, West Bromwich, Staffordshire.
a Vitrified blue bricks, copings, plinths, stable floor bricks, and quarries. 206
b Ridges, roofing tiles, and terra metallic pavings. 208

67 Wood & Ivery, Albion Brick Works, West Bromwich, Staffordshire.—Blue terra metallic building and fancy bricks; mouldings, copings, footpath paving bricks, grooved stable floor bricks, terminals; terra metallic vases, trusses, etc. 206

68 Johnson & Co., Ditchling Potteries, Sussex.—Terra-cotta as applied to building purposes; terminals, vases, ridge tiles, and general terra-cotta work. (*Agricultural Hall.*) 206

69 Matthews, John, Royal Pottery, Weston-super-Mare, Somerset.—Terra-cotta vases, fountains, and baskets; garden pottery, etc. 206

70 Watcombe Terra-Cotta Co. (limited), Watcombe, South Devon.—Terra-cotta, painted vases and plaques, statuettes, etc.; frescoes for mural adornment, and architectural terra-cotta specimens. 206

71 Brooke, Edward, & Sons, Fieldhouse Fire Clay Works, Huddersfield, Yorkshire.
a Sanitary tubes. 206
b Fire bricks and clay for furnaces; sewer ventilators; silica fire bricks for furnaces. 207

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Ceramics.

72 Stiff, James, & Sons, London.
a Terra-cotta jars, bottles, tiles, vases, medallions, water filters, refrigerators, air bricks, stoves, and stove linings, tablets with figures in bas-relief, figures for church and other decorations; sanitary ware, sewer traps, drain pipes, etc. 206
b Terra-cotta stoves and stove hinges. 207
c Files. 208
d Chemical stoneware, water filters, refrigerators, etc. 210

73 Jennings, George, London.—Appliances for ventilation, terra-cotta bricks, etc.; stoneware drain pipes, gulley traps. 206

74 Holland, William Thomas, Yrisymudw, South Wales.
a Architectural terra-cotta, bricks and tiles, sanitary pipes and ware. 206
b Fire bricks and fireproof cements. 207
c Ceramic goods, earthenware, or faience, in table, tea and toilet services, etc. 213

75 Lindsay & Anderson, Lilliehill Fire Clay & Terra-Cotta Works, Dunfermline, Scotland.
a Fountain in terra-cotta, bust and pedestal of Sir Walter Scott, statuette of Sir James Y. Simpson, nymphs at fountain, garden vases and pedestals, sewage pipes and sanitary appliances, collection of terra-cotta. 206
b Gas stove in terra-cotta, fire-clay bricks, chimney cans. 207

76 Doulton, Hy., & Co., London.—Terra-cotta goods for architectural purposes; sanitary pottery in salt-glazed stoneware, queensware; vitrified metallic bricks and pavings. 206

76*a* Eastwood & Co., (limited), London.
a Building, paving, ornamental, and fire bricks; Staffordshire blue bricks, grooved paviors. 206
b Red paving and roofing tiles; ridges and clinkers. 208

77 Brownhills Pottery Co., Tunstall.
a Terra-cotta and black glazed ware. 206
b Floor and roof tiles, ridge ornaments, etc. 208
c Jugs. 210
d Earthenware dinner, dessert, and toilet ware. 213

78 Dean, Henry, Rugby, Warwickshire.—Stoneware drain traps and yard gullies of different patterns. 206

78*a* Maw & Co., Benthall Works, Broseley, Shropshire.
a Architectural majolica, and terra-cotta. 206
b Geometrical mosaic, encaustic, and majolica tiles. 208

79 Tinworth, George, London.—Panels in terra-cotta, illustrative of Scripture, and articles in colored stoneware. 206

79*a* Daniell, A. B., & Son, London.
a Porcelain and pottery, ornamental vases, candelabra, etc.; fountains, jardinières, garden seats, vases, etc. 206
b Dinner, dessert, tea, and coffee services; toilet services. 213

80 Harper & Moores, Stourbridge.—Fire clays, prepared clays, fire bricks, crucibles, melting pots, bricks for smelting furnaces, etc. 207

81 Cliff, John, Runcorn, near Liverpool.—Fire brick. 207

82 Patent Plumbago Crucible Co., Battersea Works, London.—Portable furnaces; skittle pots for glass melting; crucibles for jewelers, assayers, dentists, etc.; founders' blacking. 207

83 Price, J. & C., & Bros., Bristol.—Ale bottles, spirit jars, barrels, preserve jars, water filters, feet warmers, etc.; stoneware. 207

84 Bates, Walker, & Co., Dale Hall Works, Burslem.
a Ironmongers', artists', and gardenware; earthenware goods; signboard letters. 209
b Spirit barrels. 210
c Dinner, dessert, toilet, and tea ware; porcelain slates, menu tablets, etc. 213

85 Doulton & Co., London.—Mantelpieces, stoves, hearth, and fenders of clay; crucibles, furnaces, muffles, in fire clay and plumbago. 207

86 King Bros., Stourbridge.—Fire brick, gas retorts, etc. 207

88 Davidson, T., jr., & Co., Caledonian Pipe Works, Glasgow.—Clay tobacco pipes; white clay pipes, fitted with fancy mouthpieces and cases. 207

88*a* Doulton & Watts, Lambeth Pottery, London.
a Stoneware for chemical works. 207
b Tile decorations. 208
c Stoneware for manufacturing purposes; pulpit and font in fine art pottery faience. 209
d Stoneware for domestic purposes. 210

89 The Campbell Brick & Tile Co., Stoke-upon-Trent.—Encaustic, geometric, majolica, and all kinds of glazed tiles and mosaics, bricks, and roofings. 208

90 Craven, Dunill, & Co., Jackfield Works, near Ironbridge, Shropshire.—Tiles for pavements and hearths; ornamental splays for fireplaces; tiles for walls and furniture. 208

91 Minton, Hollins, & Co., Minton's China Works, Stoke on Trent.—Tiles, tile-mosaic, tile fender, chimney piece, fire grate, flower vases, etc. 208

92 Stanley Bros., Midland Tile Works, Nuneaton, Warwickshire.—Perforated tiles for malt kiln floors. 208

93 Brown-Westhead, T. C., Moore, & Co., Cauldon Place, Staffordshire Potteries.
a Tiles and sanitary ware. 206
b China, earthenware, statuary, porcelain, and majolica ware. 209
c Druggists' and perfumers' goods. 210
d Dinner, dessert, and toilet services. 213

93*a* Matthews, Edward, & Son, London.—Decorative tiles. 208

93*b* Minton China Works, Stoke upon Trent.—Enameled tiles, etc. 208

93*c* Colthurst, Symons & Co., Bridgewater.—Bricks and tiles. (*In Agricultural Hall.*) 208

94 Brownfield, Wm., & Son, Cobridge, Staffordshire Potteries.—China, majolica, ironstone china, parian, earthenware, stoneware, etc. 210

95 Edwards, J., & Son, Burslem, Staffordshire.—Ironstone whiteware. (*In Agricultural Hall.*) 210

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

CANTRELL & COCHRANE'S
GINGER ALE &



Works DUBLIN The Nassau.



Works BELFAST Cromac Building.

IRELAND.

MINERAL WATER MANUFACTORIES

FIVE PRIZES, PARIS EXHIBITION, 1867.

CAUTION.

TO MERCHANTS, DRAPERS, & TAILORS

WHO BUY AND USE

"BLISS' CHIPPING NORTON TWEEDS."

WHEREAS—It having come to the knowledge of W. B. and Son that certain manufacturers are trying to introduce a spurious imitation of the above goods, less in substance and strength, made from very inferior materials, W. B. and Son, wishing to maintain the reputation they have so many years enjoyed for making the stoutest, most durable and approved Tweed for Riding Trousers, and at the same time wishing to protect their own interest as well as that of their friends, have determined to stamp each piece of their Tweed every two-and-a-half yards, "BLISS, CHIPPING NORTON."

TRADE MARK.



The above-mentioned goods supplied direct from W. B. and Son, only to WHOLESALE HOUSES AND SHIPPERS, as heretofore.

Having started an additional new mill, full of the best machinery, they can now supply any quantity of perfect Tweeds, punctually delivered.

FIVE PRIZE MEDALS AWARDED.

GOODALL'S HOUSEHOLD SPECIALITIES.

A single trial solicited from those who have not yet tried these splendid preparations.



GOODALL'S BAKING POWDER

THE BEST IN THE WORLD.

The cheapest because the best, and indispensable to every household, and an inestimable boon to housewives. Makes delicious Puddings without eggs, Pastry without butter, and beautiful light Bread without yeast. Sold by Grocers, Oilmen, Chemists, &c., in 1d. Packets: 6d , 1s., and 2s. Tins.

Prepared by GOODALL, BACKHOUSE & CO., LEEDS.

YORKSHIRE RELISH.

THE MOST DELICIOUS SAUCE IN THE WORLD.

This cheap and excellent Sauce makes the plainest viands palatable, and the daintiest dishes more delicious. To Chops and Steaks, Fish, &c., it is incomparable. Sold by Grocers, Oilmen, Chemists, &c., in Bottles, 6d., 1s., and 2s. each.

Prepared by GOODALL, BACKHOUSE & CO., LEEDS.



GOODALL'S QUININE WINE.

The best, cheapest, and most agreeable tonic yet introduced. The best remedy known for Indigestion, Loss of Appetite, General Debility, &c. Restores delicate invalids to health and vigour. Sold by Chemists, Grocers, &c., at 1s., 1s. 1½d., 2s., and 2s. 3d. each Bottle.

Prepared by GOODALL, BACKHOUSE & CO., LEEDS.

DR. HASSALL'S FOOD FOR INFANTS, CHILDREN, AND INVALIDS.

DR. ARTHUR HILL HASSALL, M.D., the inventor, recommends this as the best and most nourishing of all Infants' and Invalids' Foods which have hitherto been brought before the public. It contains every requisite for the full and healthy support and development of the body, and is, to a considerable extent, self-digestive. Recommended by the "Lancet," and Medical Faculty, &c. Sold by Druggists, Grocers, Oilmen, &c., &c., in Tins, 6d., 1s., 2s., 3s. 6d., 6s., 10s., and 28s. each. A Treatise by Arthur Hill Hassall, M.D., London, on the "Alimentation of Infants, Children, and Invalids, with hints on the general management of children," sent post free on application to the

Manufacturers, GOODALL, BACKHOUSE & CO., LEEDS.



The following PRIZE MEDALS have been awarded—

Nismes, 1863; Cologne, 1865; Paris, 1872; Havre, 1868; Beauvais, 1869; Marseilles, 1874; Paris, 1875;

AND SEVERAL HONOURABLE MENTIONS.



ENGLISH ROOFING & SHEATHING FELTS,

MANUFACTURED AND EXPORTED BY

D. ANDERSON & SON, BELFAST, IRELAND,

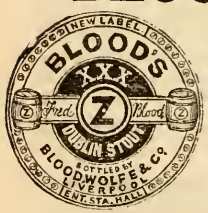
And 23 & 23½, BILLITER STREET, CITY, LONDON, ENGLAND.

Sole Makers and Patentees for the U.S. of America of

ANDERSON'S PREPARED ROOFING FELT,

Ready Coated and Sanded, especially for HOT CLIMATES.

BLOOD, WOLFE & CO.'S



XXX DUBLIN STOUT

AND

PALE ALES,



LIVERPOOL AND LONDON, ENGLAND.

Agents in all principal cities in the United States.

96*a* Gardner, Peter, Dunmore Pottery, by Stirling, Scotland.—Rockingham teapots. 210

97 Edwards, John, Fenton, Staffordshire.—Ironstone china and porcelain de terre tea, dinner, toilet, and jug services. (*In Agricultural Hall.*) 213

98 Bailey, W. & J. A., Alloa, Scotland.—Rockingham earthenware teapots. 213

98*a* Powell & Bishop, Hanley, Staffordshire.—Dinner, dessert, tea, and toilet services, white granite, etc. 213

99 Hetley, J., & Co., London.—Glass shades; glass used for photographic, building, and horticultural purposes. 214

100 Chance Bros., & Co., Glass Works, near Birmingham.—Glass for optical instruments. 214

101 Kilner Bros., London.—Glass bottles and glass, for useful and scientific applications. 215

107 Aire & Calder Glass Bottle Co., London.—Glass bottles, combination stoppers, packing cases, corks, straw envelopes. 215

108 Green, James, & Nephew, Thames Cut Glass Works, London.—Table glass, cut and engraved table decorations and flower stands, glass chandeliers, and lustre candlesticks. 216

109 Millar, John, & Co., Edinburgh.—Engraved and cut glass. 216

109*a* Jenkinson, Alexander, Edinburgh.—Venetian glass in antique shapes. 216

Furniture and Objects of General Use in Construction and in Dwellings.

110 Cox & Sons, London.—Chimney piece, embroidered mantel board, ebonized corner cupboard, carved oak furniture, bronze ornament, stained glass church window, wrought iron pulpit body, lecterns, church plate, wrought iron and brass work, art tiles and plaques; the challenge prize of the National Musical Union, etc. 217

110*a* Turner, George, & Co., London.
a Hammock bedstead and sofa, mosquito curtains. 217
b Camp oven. 222

111 Wright & Mansfield, London.—Cabinet furniture of the 18th century. 217

112 Hems, Harry, Exeter.—Alabaster statue; carved oak chest made out of ancient beams (nearly 600 years old) from the choir of Salisbury cathedral. 217

113 Peyton & Peyton, Bordesley Works, Birmingham.—Metallic bedsteads. 217

114 Morton, W. Scott, & Co., Art Furniture Works, Edinburgh.—Decorative furniture, ebonized and decorated cabinet, sideboard. 217

115 Hart, Son, Peard, & Co., London.
a Artistic metal work (chiefly for ecclesiastical purposes), stove grates, etc. 217
b Stove grates, etc. 222
c Gas fixtures. 223

116 Shoolbred, James, & Co., London.—Furniture in the Jacobean and Queen Anne styles; bedroom furniture in the Anglo-Indian style; curtains and carpets. 217

116*a* White, William George, London.—Steel safe. 217

117 Barnard, Bradly, London.—Furniture and hammock. 217

118 Cooper & Holt, London.—Furniture, sideboard, portion of bedroom suite, decorative drawing-room furniture. 217

119 Phipson, Miss Emma, Monk Sherborne, Basingstoke, Hants.—Sideboard, ladies' work table, dressing glass, and candlesticks. 217

119*a* Chatwood, Samuel, London.—Fire and burglar proof safes. 217

120 Ward & Co., London.—Bear arranged as dumb waiter to hold tray and lamp. 217

122 Arthur, Frederick, London.—Cabinet work and fittings for Royal School of Art needlework exhibits. 217

123 Wethered, Edwin Robert, Woolwich, Kent.
a Hammock. 217
b Friction pulley block, exhibited as a fire-escape. 227

124 Matthews, Edward, & Son, London.—Stained glass windows, mural brasses. 217

125 Barnard, Bishop, & Barnards, Norfolk Iron Works, Norwich.
a Stoves. 222
b Mangles. 225
c Ornamental wrought and cast iron gates, palisade, pavilions, etc. 710
d Lawn mowers, hose reels, garden rollers, and iron garden requisites. 720

125*a* Howard & Sons, London.—Household furniture. 217

126 Singer, J. W., & Son, Frome, Somerset.—Artistic metal work, altar crosses and candlesticks, alms dishes, and mural brass plates for churches. 217

126*a* Sage, Frederick, London.—Air-tight show cases, velvet show stand, etc. 217

127 Knight, Miss Mary, London.—Bedstead. 217

128 Jeffreys, Charles, London.
a Show cases, bronzed shop fittings, and show stands. 217
b Cut glass mirrors. 219
c Reflecting lamps. 223

129 Royal School of Art Needlework, London.—Artistic needlework and embroidery in applique, crewels, and silk. 217

130 MacIntosh, James, London.—Decorative doors and panels; imitations of woods and marbles, decorative designs and paper-hanging. 217

130*a* Collmann, L. W., London.—Piano in carved satinwood case, etc. 217

130*b* Watson & Son, Bombay, East India.—Indian furniture, etc. 217

131 Collinson & Lock, London.—Furniture, wall papers, and textile fabrics in the old English style. 217

131*a* Neal, John, London.—Table ware. 218

132 Goggin, Jeremiah, Dublin.
a Table ornaments, drinking cups, tankards, etc. 218
b Mirrors. 219

133 Bailey, W. & J. A., Alloa, Scotland.—Engraved table glass. 218

133*a* Gill, James, London.—General engraving on metals, etc. 218

134 Elkinston & Co., Birmingham.
a Solid silver and electro-silver plate for domestic use; decorative table plate relieved with electro-gold and oxidized silver. 218
b Cloisonné and champlevé enamels on silver and copper. 413
c Works of art in gold, silver, and other metals; bronzed statuary. 443
d Antique art treasures, in metal, from the South Kensington Museum. 454

137 Kent, George Barton, & Co., London.
a Ivoride mirrors. 219
c Photograph stands. 220

138 Engert, A. C., & Co., London.—Ornamental mouldings for picture frames and architectural decorations. 220

139 Hieronimus, W., London.—Frame mouldings, window cornices, decorating mouldings, etc. 220

140 Heaps & Wheatley, Brotherton, Yorkshire.—Oil cooking stove, gas stove, water boilers, etc. 222

143 Steel & Garland, Wharncliffe Works, Sheffield.—Steel grates, with porcelain tiles; fenders, encaustic tile hearths, stoves with china tiles, fire irons, etc. 222

144 Smart, Walter, Buckhurst Hill, Essex.—Sub-fire oven. 222

146 Feetham, Mark, & Co., London.—Stoves and grates with appliances; decorated china for fireplaces. 222

147 Perkins, A. M., & Son, London.—Steam oven for marine use. (*In Machinery Hall.*) 222

148 Thornton, Ebenezer, Bradford, Yorkshire.—Cooking stove for gas or solid fuel. 222

148*a* Clay, Randolph, London.—Flexible gas tubing. 223

149 Gardner, John, & Sons, London.—Lamps, Arctic expedition lamps, traveling canteens. 222

150 Field, J. C. & J., London.—Night lights and candle guard. 223

151 Partridge & Co., Birmingham.—Brass gaseliers, brackets, etc. 223

152 Skelton & Co., London.—Street lamp, with reflectors. 223

152*a* Kent, George, London.—Knife-cleaning machine. 224

153 Etzenberger, R. Z., London.—Patent coffee filter, etc. 224

153*a* Cheavin, George, Boston, Lincolnshire.—Water filters. (*In Agricultural Hall.*) 226

154 Jennings, George, London.—Lavatories, baths, closets, urinals, and latrines; water meters and water waste preventors. 226

155 Bullivant, Thomas, London.—Sash window. 227

156 Edwards, G., London.—Sliding window sashes and frame. 227

Yarns and Woven Goods of Vegetable or Mineral Materials.

157 Brown, J. B., & Co., London.—Galvanized wire netting for inclosing poultry, pheasants, dogs, etc. (*In Agricultural Hall.*) 228

157*a* Engert & Rolfe, London.—Felts for roofing, fibrous asphalt, etc. (*In Agricultural Hall.*) 235

158 Greening, N., & Sons, Warrington.—Woven wire. (*In Agricultural Hall.*) 228

158*a* McTear & Co., Belfast, Ireland.—Roofing, ship sheathing, and inodorous felt; model of roof. 228

159 Cox Bros., Camperdown Linen Works, Dundee, Scotland.—Jute yarns, twines, etc. 229

160 Sandeman, Frank Stewart, Manhattan Works, Dundee, Scotland.—Linen and jute yarns, carpet yarns, burlaps, baggings, canvas paddings, scrim cloth, horse covers, and lap robes. 230

161 Laird, William, & Co., Canmore Linen Works, Forfar, Scotland.—Textile fabrics, washed damasks, fancy towelings, horsecloths, sheetings, osnaburgs, stair covering, seamless bags, hessians, striped beddings, paddings, ducks, buckram, etc. 230

162 Johnson, Jabez, & Fildes, Manchester.
a Quilts and bedcovers, toilet or bureau covers, brocades, damasks, dimities, muslins. 230
b Printed cretons, towels, dress fabrics, etc. 232

163 Dewhurst, John, & Sons, Belle Vue Mills, Skipton, Yorkshire.—Sewing cotton, finished and in various stages of manufacture. 230

164 Brook, Jonas, & Bros., Meltham Mills, Huddersfield.—Spool cotton, white and colored; crochet and embroidery cotton. 230

164*a* Greenmount Spinning Co., Greenmount Factory, Dublin.
a Cotton goods for domestic and clothing purposes. 230
b Linen goods. 233

165 Neilson, Storer, & Sons, Thorn Mills, Johnstone, near Paisley.—Yarns; knitting, mending, and other cottons; yarns for lace, curtain, and fancy dress manufacturers. 230

165*a* McBride, Robert, & Co., Belfast.
a Cotton goods. 230
b Mixed cotton and linen goods. 233

166 Clark, John, jr., & Co., Glasgow, Scotland.—Spool cotton. 230

167 Swainson, Birley, & Co., Fishwick Mills, Preston.—Bleached cotton fabrics. 230

167*a* Turner, George, & Co., London.—Tent. 230

168 Barlow & Jones (limited), Manchester.—Toilet quilts, covers, and mats; cloakings, cotton towels, blankets, alhambras, and counterpanes, plain and fancy muslins, etc. 230

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Established 1801.

JONAS BROOK & BROTHERS

Meltham Mills, near Huddersfield,

MANUFACTURERS OF

SEWING, CROCHET, AND EMBROIDERING COTTON,

DEPÔTS:

49, Cannon Street, London, E.C. | 10, Garthland Street, Glasgow.
36, Fountain Street, Manchester. | 93, Boulevard de Sebastopol, Paris.

WM. HY. SMITH & CO., 32, Greene Street, New York, Sole Agents for the U.S.

BROOK'S PATENT GLACÉ SPOOL COTTON,

BROOK'S PATENT GLACE THREAD 50

Lengths

J. BROOK & BROS 200 Yds MELTHAM MILLS

Warranted.

FOR HAND AND MACHINE USE.



BROOK'S SIX CORD SOFT FINISH SPOOL COTTON,

BROOK'S SIX CORD 50

Lengths

J. BROOK & BROS 200 Yds MELTHAM MILLS

Warranted.

FOR HAND AND MACHINE USE.

BROOK'S PATENT GLACÉ THREAD, IN WHITE, BLACK, AND COLORS.

The extraordinary strength, smoothness, and durability obtained by this invention have secured for it great popularity, and it is consequently much imitated in inferior qualities. This Cotton is always labelled BROOK'S PATENT GLACÉ THREAD, and without their name and crest (a GOAT'S HEAD), the words "Glacé," or "Patent Glacé," do not denote that it is of their manufacture.

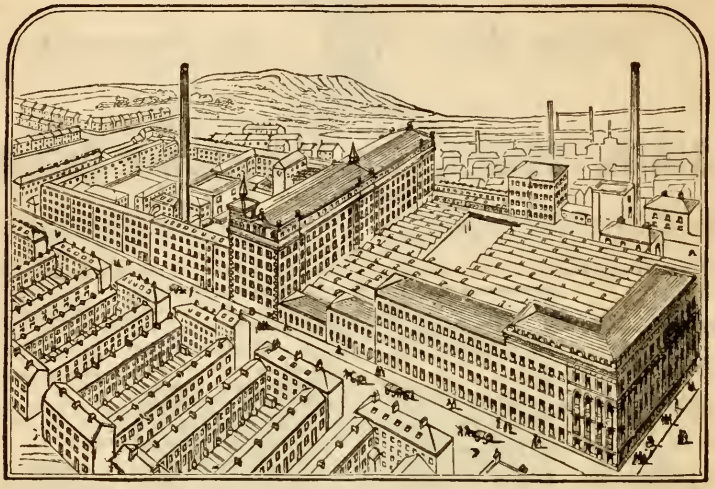
BROOK'S PATENT NINE AND SIX CORDS will be found of very superior quality, and are strongly recommended wherever a SOFT COTTON is preferred.

EXHIBITION PRIZES.

Only Medal ..... London, 1851. | Only First Class Medal, Paris, 1855.
Prize Medal ..... London, 1862. | Gold Medal ..... Paris, 1867.

ONLY DIPLOMA OF HONOUR, VIENNA, 1873.

PURE IRISH LINENS.



ESTABLISHED 1830.

York Street Flax Spinning Co., Ltd.,

BELFAST, IRELAND,

FLAX SPINNERS, POWER-LOOM WEAVERS, BLEACHERS & MERCHANTS,

MANUFACTURERS OF

DRESS LINENS,
CLOTHING GOODS & HOUSEHOLD LINENS.

MANUFACTURES.

DRESS LINENS.

Irish Linen Brocade,
Natural Dress Linen,
Viennese Dress Linen,
Grenadines,
Printed Lawns.

CLOTHING.

Brown Diagonal Drills, *Plain*,
Brown Diagonal Drills, *Fancy Stripe*,
Brown Diagonal Tweeds,
Bleached Drills and Ducks,
Brown Ducks and Duck Coatings,
Canvas & French Elastic Ducks,
Pale Hollands,
Blay Linens.

HOUSEHOLD.

Light Shirting Linen,
Light Fronting Linen,
Super Fronting Linen,
Medium Family Linens,
Heavy Family Linens,
Sheetings,
Interlinings,
Drawer Linens.

BRANCHES & AGENCIES.

NEW YORK	**154, Church Street.**
NEW ORLEANS	**Messrs. Anderson & Simpson.**
PARIS	**38, Rue des Jeuneurs.**
LONDON	**2, Russia Row, Milk Street.**
MANCHESTER	**12, Piccadilly.**

Woven Goods.

168*a* **Briggs, J. F., & Co., Huddersfield,** Yorkshire.—Drills and ducks. 230

169 **Ashworth, Edmund, & Sons, Egerton** Mills, Bolton, Lancashire.—Cotton in various stages of manufacture; yarns, sewing cottons; crochet, embroidery, knitting, mending, and glove cottons, linen finish thread. 230

170 **Pearson, Thomas, & Son, Victoria** Mills, Little Bolton.—Quilts, quiltings, toilet covers, and mats. 230

171 **Hawkins, John, & Sons, Manchester.**—Plain and twilled calicoes and prints. 232

172 **Ferguson Bros., Holme Head** Works, near Carlisle.—Satteens. 231

173 **Schwabe, Salis, & Co., Manchester.**—Cotton prints for garments, chintzes, and furniture. 232

174 **Simpson & King, Manchester.**—Printed cotton furniture fabrics. 232

175 **Marshall & Co., Leeds.**—Linen sewing threads. 233

176 **Normand, James, & Sons, Dysart,** Fifeshire, Scotland.—Linens for housekeeping, shoe linings, etc. 233

177 **Ewart, William, & Sons, Belfast,** Ireland.—Linen fabrics. 233

178 **The York Street Flax Spinning** Co. (limited), Belfast. — Linen piece goods, drills, ducks, sheetings, shirtings, and frontings. 233

179 **Matier, Henry, & Co., Belfast.**—Bleached and printed linens; handkerchiefs, plain, hemstitched printed, and embroidered. 233

180 **Ainsworth, Thomas, Cleator Mills,** Cleator, Cumberland.—Linen threads and towels. 233

181 **Ullathorne & Co., London.**—Shoe and saddlers' threads. 233

182 **Fenton, Connor, & Co., Linen Hall,** Belfast.—White linens, cambric, table linens, linen ducks, drills, etc.; printed shirtings and lawn dress goods. 233

183 **Brown, John S., & Sons, Belfast.**—Table linen, diapers, sheetings, shirting linen, lawns, linen and cambric handkerchiefs. 233

184 **Richardson, J. N., Sons, & Owden,** Belfast.—Linen goods. 233

185 **Dicksons, Furguson, & Co., Belfast.**—Linens bleached and unbleached. 233

190 **Dunbar, McMaster, & Co., Gilford,** Ireland.—Linen threads. 233

191 **Nairn, Michael, & Co., Kirkaldy,** Scotland.—Floor oil cloths. 234

192 **Corticine Patent Floor Covering** Co., London.—Floor covering. 234

193 **Hall, Thomas, Edinburgh.**—Hand painted cloths in imitation of tapestry, for wall decoration. 234

194 **Wellock, J., & Co., Bradford, York**shire.—Waterproof materials for cart and wagon covers. 234

195 **Boulinikon Floor Cloth Manufac**turing Co. (limited), Manchester.—Floor cloth. 234

Woven and Felted Goods of Wool, etc.

196 **Andrews, Henry, & Co., Leeds.**—Worsted coatings, wool and union cloths, and wool meltons. 235

197 **Brown, John S., & Sons, Belfast.**—Yarns. 235

198 **Hooper, Charles, & Co., Eastington** Mills, Stonehouse, Gloucestershire.—Woolens, broadcloths, military cloths, doeskins, beavers, elysians, kerseys, meltons, coatings, and trowserings. 235

199 **Salter, Samuel, & Co., Home Mills,** Trowbridge, Wiltshire.—Trowserings and coatings. 235

200 **Dunbar, McMaster, & Co., Gil**ford, Ireland. — Gray and bleached yarns. 235

201 **Mahony, Martin, & Bros., Blar**ney, Ireland.—Tweeds, boating serge, worsted coatings, railway traveling wraps. 235

202 **Anderson, David, & Son, Lagan** Felt Works, Belfast, Ireland.—Roofing, flooring, and ship sheathing felt, lining felt, hair felts for covering boilers and steam pipes. (*In Machinery Hall.*) 235

203 **Bliss, William, & Son, Chipping** Norton, Oxon.
a Tweeds, woolen serges, and saddlers' woolens. 235
b Shawls. 337
c Mauds and rugs. 239

204 **Brigg, J. F., & Co., Huddersfield,** Yorkshire.—Beavers, coatings, cheviot, cassimeres, carriage and livery cloths, doeskins, elysians, meltons, kerseys, pilots, rugs, vestings and quiltings, velvets, union cloths, witneys, and reversible coatings. 235

205 **Carr, Isaac, & Co., Twerton Mills,** Bath.—Woolen cloths, meltons, twills, beavers. 235

206 **Bubb & Co., Southfields Mills, near** Stroud.—Woolen cloths; billiards, government, and piano cloths. 235

207 **Marling & Co., Ebley and Stanley** Mills, Stroud, Gloucestershire. — Raw, scoured, and dyed wool; woolen cloths, beavers, venetians, doeskins, deerskins, cassimeres, etc. 235

208 **King, William, Gilroyd and Albert** Mills, Morley, Leeds.—Union and melton cloths. 235

209 **Birchall, J. D., & Co., Burley Mills,** Leeds.—Woolen and worsted goods. 235

211 **Hargreaves & Nusseys, Farnley** Low Mills, Leeds.—Coatings, overcoatings, kerseys, meltons, woolen cloths. 235

213 **Davies, Robert S., & Sons, Stone**house Mills, Gloucestershire. — Cloths, doeskins, venetians, meltons, coatings, beavers, etc. 235

214 **Little, T. W., & Co., Leeds.**—Mantle cloths, waterproof tweeds, twills, meltons, blue and black deerskins, and diagonals. 235

For classes of exhibits indicated by numbers at end of entries, see Classification, pp. 27–45.

215 Jones, Pryce, Newtown, North Wales.
a Welsh flannel, homespuns, tweeds, yarns, etc. 236
b Shawls. 237

216 Buckley, Joseph, & Co., Moorcroft Mills, Delph, near Manchester.—Shawls, raised fancies, Rob Roys, and shepherds. 237

217 Farmer & Rogers, London.—Cashmere shawls. (*In Indian Section.*) 237

218 Buckley, J. E. & G. F., Linfitts Mill, Delph, near Manchester.—Queensland and beaver shawls. 237

218*a* Hepworth, B., & Sons, New Wakefield Mills, Dewsbury, Yorkshire.
a Railway knee wrappers. 237
b Rugs. 239

218*b* McGee, John G., & Co., Belfast, Ireland.
a Traveling wraps, shawls, etc. 237
b Rugs. 239

219 Williams, E. G., & Co., Bradford, Yorkshire. — Textile fabrics for dress goods. 238

220 Pim Bros. & Co., Dublin.—Irish poplins, silk terries, and brocatelles. 238

221 Henderson & Co., Durham.—Durham axminster. 239

222 Lewis, John, Halifax, Yorkshire.—Brussels and Wilton carpets. (*British Offices.*) 239

223 Gregory & Co., London.—Indian and Persian carpets. 239

224 Robinson, Vincent, & Co., London.—Carpets and rugs. 239

225 Crossley, John, & Sons (limited), Dean Clough Mills, Halifax, Yorkshire.—Carpets, rugs, sofa carpets, table covers, etc. 239

226 Tomkinson & Adam, Kidderminster.—Axminster carpets. 239

227 Lapworth Bros., London.—Carpets and rugs. 239

228 Templeton J. & J. S., Glasgow.—Brussels and Wilton carpeting; silk and wool window curtains. 239

228*a* Welch, Margetson, & Co., London.—Rugs. 239

229 Templeton, James, & Co., Glasgow.—Axminster carpets, breadth carpeting, hearth rugs. 239

229*a* Tapling, Thomas, & Co., London.—Tapestry. 239

230 Webb, Edward, & Sons, Worcester.—Hair cloth for furniture covering, hair cloth paddings, curled hair, crinoline, hair cloth. 240

230*a* McLintock, James, & Sons, Barnsley, Yorkshire.—Down quilts and pillows. 240

231 Wild, John, Greenfield Mills, Shaw, near Oldham.—Cotton plush velveteen. 231

Silk and Silk Fabrics.

232 Sheldon & Fenton, London.—Sewing silks, tailors' twist, machine silks, etc. 243

233 Rickards, Charles Ayscough, Bell Busk Mills, near Leeds.—Sewing and machine silks, twists; embroidery, knitting, and crochet silks. 243

234 Milner, Wm., & Sons, Leek, Staffordshire.—Sewing silks. 243

235 Ward, Anthony, & Co., Albion Silk Mills, Leek, Staffordshire.—Silk threads. 243

236 Adams & Co., London.—Knitting silks, filoselle. 243

237 Hilditch, G. & J. B., London.
a Silk and silk fabrics. 245
b Velvets. 248

238 Norris & Co., London.—Silk for furniture and upholstery purposes. 246

238*a* Stewart, Moir, & Muir, Glasgow.—Curtains for window and decorative purposes and for use in the British section. 246

239 French & Co., St. Mary's Mills, Norwich.—Black crape. 247

239*a* Simon, May, & Co., Nottingham.—Nets, Shetland scarfs, shawls, elastic webs, etc. 247

239*b* Welch, Margetson, & Co., London.—Scarfs, ties, and silk handkerchiefs. 247

240 Stevens, Thomas, Stevengraph Works, Coventry. — Jacquard loom at work; ribbons, neckties, sashes, badges, and emblematical regalia; navy hat ribbons, gold and silver lace, silk-centred sachets. 248

241 Heymann & Alexander, Nottingham.—Nets, quillings, trimmings, etc. 249

243 Turner, Archibald, & Co., Leicester.—Elastic fabrics, cords, and braids. 249

Clothing, Jewelry, and Ornaments; Traveling Equipments.

245 Morley, J. & R., London.
a Hosiery. 250
b Gloves. 251

246 McLintock, James, & Sons, Barnsley, Yorkshire.
a Down quilts, skirts, jackets, and dressing gowns; dress improvers. 250
b Slippers. 251

247 Welch, Margetson, & Co., London.
a Linen collars, shirtings, etc. 250
b Umbrellas. 254

248 Sykes, Josephine, & Co., London.—Corsets and ladies' belts. 250

249 Hitchcock, Williams, & Co., London.—Costumes of mixed fabrics. 250

250 McGee, John G., & Co., Belfast, Ireland.—Ulster overcoats and Irish homespun goods. 250

250*a* Connor, Mrs., Dublin.—Patchwork quilt. 250

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

PIM BROTHERS & Co.



SOUTH GT. GEORGES ST., DUBLIN.

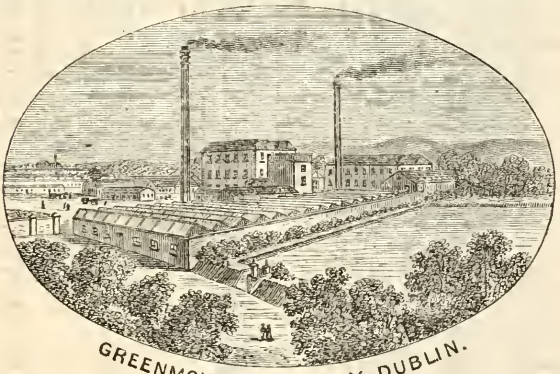
MANUFACTURERS OF

Irish Poplins AND Irish Linens.



HAVE BEEN AWARDED PRIZE MEDALS FOR THEIR POPLINS WHEREVER EXHIBITED.

30 Milk Street, LONDON, E.C.



GREENMOUNT FACTORY DUBLIN.

Upper Queen Street, BELFAST.

THE GREENMOUNT SPINNING COMPANY.

(PIM BROTHERS & Cº)

AGENT FOR UNITED STATES:
GEORGE RIGGS, 77 FRANKLIN ST., NEW YORK.



WILLIAM EWART & SON,

Flax Spinners, Linen Manufacturers, Bleachers and Merchants.

BELFAST, NEW YORK. AND MANCHESTER.

FLAX SPINNING MILLS AND WEAVING FACTORIES—CRUMLIN ROAD and MOUNTAIN MILLS, Ligoniel.
OFFICES, WAREHOUSE, and WEAVING FACTORY—BEDFORD STREET.
BLEACH GREEN—GLENBANK.
} BELFAST.

SPINNERS OF FLAX AND TOW YARNS.

MANUFACTURERS, BLEACHERS, DYERS, AND FINISHERS OF LINENS AND UNIONS.

Brown, Bleached and Printed Drills; Imperial and Brown Ducks.
Canvas; Clothing and Dress Goods; White and Printed Lawns; Hollands; White Shirting Linens; Sheetings; Damasks; Table Napkins; Diapers; Handkerchiefs; &c., &c., &c.

The Works employ 3,200 hands, and contain 31,000 Spindles and 1,500 Power Looms.

Clothing, Jewelry, Fancy Goods.

251 Smyth & Co., Balbriggan, Ireland.—Balbriggan hosiery, lace hose, light stockings. 250

251*a* Turner, George, & Co., London.
a Military and traveling equipments; appliance for picketing horses. 250
b Hammock-valise and canteen. 255

252 Roe, Willlam Allen, Leicester.—Boots and shoes. 251

253 Lobb, John, London.—Gentlemen's and ladies' boots. . 251

254 Dash, Osmond, Brighton.
a Hats and caps. 251
b Umbrellas. 254

260 Lincoln, Bennett, & Co., London.—Hats. 251

261 Humbert, Hermann, London.—Hats and bonnets; hat and bonnet shapes. 251

263 Debenham & Freebody, London.—Gloves. 251

264 Tress & Co., London.—Hats; pith and felt solar hats and helmets. 251

264*a* Jacoby, M., & Co., Nottingham.—Valenciennes and silk guipures; imitation Swiss curtains, lace curtains. 252

265 Smith, George John, London.—Irish lace made by the Industrial Poor. 252

265*a* Heymann & Alexander, Nottingham.—Silk, wool, and cotton laces. 252

266 Dunraven, the Countess of, Adare, County Limerick, Ireland.—Embroidery on lawn; robes, pocket handkerchiefs, insertion for dresses, pincushion cover, etc. 252

266*a* Simon, May, & Co., Nottingham.—Lace curtains, valances. 252

267 Goggin, Jeremiah, Dublin.
a Jewelry. 253
b Reading-stands, walking-canes, pipes, etc. 254

269 Francati & Santamaria, London.—Jet ornaments, brooches, earrings, bracelets, necklaces, etc.; jet cameo mosaics, carved by Roman cameo cutters. 253

271 Neal, John, London.—Gold and silver jewelry, precious stones. 253

272 Aitchison, James, Edinburgh.—Scottish jewelry, in gold and silver; Highland ornaments, and stones found in Scotland. 253

273 Gibson, William, Belfast.
a Gold, diamond, and Irish bog oak jewelry. 253
b Walking-sticks and table ornaments. 254

274 English, John, & Co., Feckenham, Worcestershire.—Needles; fishhooks; steel pins; hairpins; bodkins. 254

275 Johnson, J., & Co., Charterhouse Works, Sycamore street, London.—Shell boxes, toy furniture and ornaments, and fancy paper boxes. 254

276 Davis & Wilson, Birmingham.—Whip, walking-stick, and umbrella mountings; African chiefs' canes; whips and general whip materials. 254

277 Millward, Henry, & Sons, Redditch.—Needles, sewing machine needles, fishhooks. 254

278 Turner, R., & Co., Old Factory, Redditch.—Needles, pins, fishhooks, etc., displayed in a glass case, forming model of the exhibition of 1851. 254

279 Swaine & Adeney, London.—Whips, whip lashes, thongs, and sockets; horns, canes, and walking-sticks; sporting apparatus. 254

280 Smith, John Wright, Leicester.—Self-acting needles used in hosiery frames. 254

281 Kent, George Barton, & Co., London.—Ivory paper knives and shoe lifts. 254

282 Evans, David, Studley, Redditch.—Needles for hand and machine sewing. 254

283 Fenton, James, Birmingham.—Pearl buttons. 254

284 Kirby, Beard, & Co., Birmingham.—Pins, needles, hairpins, fishhooks, etc. 254

284*a* Elrick, Charles Gray, Aberdeen, Scotland.—Dressing combs; real and imitation shell, side braid, and high Spanish combs, etc. 254

285 Sangster & Co., London.—Umbrellas, parasols, sunshades, whips, canes. 254

286 Smith, James, & Son, Astwood Bank, near Redditch.—Needles, showing stages of manufacture; bodkins, hairpins, and fancy cases for holding needles. 254

287 Hayes, Crossley, & Co., London.—New shape sewing needles, machine needles, pins, bodkins, and specimens in various stages of preparation. 254

288 Cooke Bros., Birmingham.—Safety pins, curtain hooks, and fancy nails. 254

289 Woodfield, William, & Sons, Easemore Works, Redditch.—Needles, sewing machine needles, fishhooks, etc.; sail tools and fancy needle cases. 254

290 Martin, William Henry, London.—Umbrellas, walking-sticks, whips. 254

292 Tayler, D. F., & Co., New Hall Works, Birmingham.—Solid-headed toilet pins, hairpins, hooks and eyes, pearl buttons. 254

295 Hoe, Richard, & Sons, London.—Leather portmanteaus, hat cases, and bags. 255

295*a* Ward, Marcus, & Co., London.—Fancy leather work. 255

296 Harrington, J., & Co., London.—Imitation leather hat linings, shoes and shoe linings, wall decorations, pocket-books, belts, dispatch boxes, dressing and jewel cases, glove and handkerchief boxes, etc. 255

297 Bussey, Geo. G., & Co., London.—Chili leather portmanteaus, trunks, traveling bags, and leather and waterproof goods used for shooting and traveling purposes. 255

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

297*a* Jeffreys, Charles, London.—Leather traveling and jewel cases; morocco and velvet cases. 255

Paper, Blank Books, and Stationery.

299 Hinks, Wells, & Co., Buckingham Steel Pen Works, Birmingham.—Steel pens, penholders. 258

300 Stephens, Henry Charles, London. —Inkstands, gum mucilage, quills, sealing wax, parallel rulers. 258

301 Ortner & Houle, London.—Seal engraving, steel and copper plate heraldic engraving, and die sinking. 258

302 Ward, Marcus, & Co., London.
a Writing paper and envelopes, diaries, calendars, etc. 258
b Photograph albums and scrap books. 261
c Cards and valentines. 262

303 Blackwood, John, & Co., London. —Sealing and bottle wax. 258

304 Lyons, William, Manchester.—Sealing wax, gum mucilage. 258

305 Waterston, George, & Son, Edinburgh.—Sealing wax. 258

306 Ford Works Co., Ford, Durham.—Paper stock, manufactured from esparto grass; products from esparto, bamboo, megasse, phormium tenax, maize, and other fibres. 259

307 Dudgeon, Arthur, London.—Writing-papers; paper pulp manufactured from peat. 259

308 Pirie, Alexander, & Sons, London.
a Writing-papers. 259
b Cardboard. 262
c Enameled papers. 264

310 Fletcher, Robert, & Son, Kersley Paper Works, Stoneclough.—White and colored papers, fine tissues, silver tissues, copying and cigarette papers. 259

311 Birdsall & Son, Northampton.—Binding of the Hexaglot Bible. 261

312 Goodall, Charles, & Son, Camden Works, London.—Playing and Christmas cards. 262

313 Rimmel, Eugene, London.
a Valentines. 262
b Fancy crackers. 661

313*a* Stevens, Thomas, Stevengraph Works, Coventry.—Cards and valentines. 262

314 Jeffrey & Co., London.—Artistic wallpaper decorations. 264

Military and Naval Armaments, Ordnance, Firearms, and Apparatus of Hunting and Fishing.

315 Reilly, E. M., & Co., London.—Breechloading guns and express rifles. 265

315*a* Bussey, Geo. G., & Co., London.—Breechloading guns and their accessories; gyro pigeon. 265

316 Greener, William Wellington, Birmingham.—Sporting guns and rifles; breechloading guns. 265

317 Rigby, John, & Co., Dublin.—Guns and rifles and their accessories. 265

318 Henry, Alexander, Edinburgh.—Breechloading express rifles, fowling-pieces, harpoon and bomb-lance guns; military arms and target rifles. 265

319 Clay, Randolph, London.—Converter for breechloading firearms. 265

320 Dougall, James Dalziel, Glasgow. —Long-range shotguns and rifles. 265

322 Lancaster, Charles, London.—Guns, rifles, cannon; drawings and models of the oval bored. 265

323 Scott, W. & C., & Sons, Premier Gun Works, Birmingham.—Sporting firearms, revolvers, gun materials. 265

324 Needham, J. & G. H., London.—Breechloading double guns. 265

325 Purdey, Jas., London.—Guns, rifles, etc. 265

326 Lancaster, Alfred, London.—Sporting guns and rifles. 265

327 Soper, William, Reading.—Rifles. 265

328 Lang, J., & Sons, London.—Guns and rifles. 265

328*a* Eley Bros. (limited), London. —Paper and metal cartridge cases (empty), sporting and military percussion caps, gun waddings. 265

329 Webley, P., & Son, Birmingham.—Sporting breechloading guns, rifles, and revolvers. 265

329*a* Hewitt, William, Bristol.—Breechloading gun, gun carriage. (*In Machinery Hall*). 266

330 Needham, John, Sheffield.—Daggers. 268

331 Brookes & Crookes, Atlantic Works, Sheffield.—Sportsmen's and bowie knives. 268

333 Buchanan, James, Glasgow.—Sea fishhooks. 269

334 Ryder, William Henry, Birmingham.—Fishing tackle. 270

335 Green, E. C., Cheltenham.—Sporting guns, with their appurtenances; cleaning rods, with attachments; cartridge-loading implements, nipple keys, gun cases and bags. 269

336 Tolley, J. & W., Pioneer Works, Birmingham.—Sporting breechloading shot guns, implements, cartridge cases, lubricators, bullets, and primers for reloading cartridges. 269

337 Williams & Powell, Liverpool.—Breechloading guns. 269

Medicine, Surgery, and Prothesis.

338 Allen & Hanburys, London.—Cod-liver oil; gelatine impregnated with atropine and calabar bean, for application to the eye. 272

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

JOHN CLARK, JR. & CO.'S

MILE END, GLASGOW,

BEST

Six-cord Spool Cotton

ON BLACK SPOOLS,

IS UNRIVALLED

FOR

HAND AND MACHINE USE.

BRANCH AGENCIES:

58 Summer St., Boston, 535 Market St., San Francisco,

31 Bank St., Philadelphia.

THOMAS RUSSELL,

SOLE AGENT FOR THE U. S.

No. 19 Mercer Street, New York.

AGENCY IN CANADA:

BIRKS & WILSON, 1 ST. HELEN ST.,

MONTREAL.

Vienna Universal



Exhibition.



Trade Mark.

Medal for Merit,



1873.

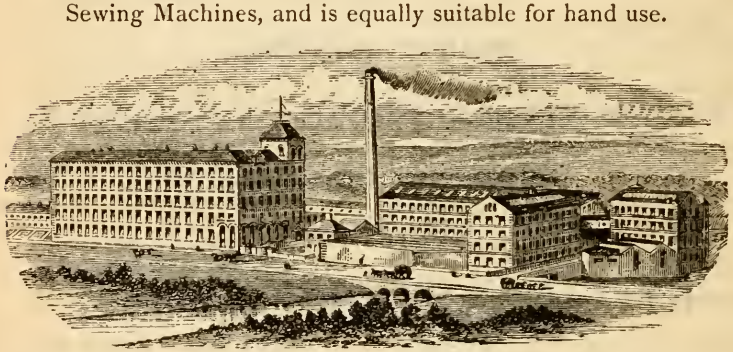
JOHN DEWHURST & SONS,

Cotton Spinners,

AND MANUFACTURERS OF

SEWING COTTON,

Remarkable for its strength, pliability, evenness, and freedom from knots. It meets all the requirements of the different kinds of Sewing Machines, and is equally suitable for hand use.



JOHN DEWHURST & SONS,

BELLE-VUE MILLS,

SKIPTON, YORKSHIRE

COTTON SPINNERS FROM A.D. 1794.

SEWING COTTON MANUFACTURERS FROM A.D. 1870.

AGENTS IN THE UNITED STATES,

MESSRS. WILSON & MERRILL, BOSTON.

Medical and Surgical Appliances, Hardware, Cutlery, Vehicles.

339 Gerrard, Alfred William, London. —Mustard plasters. 272

340 Evans, Sons, & Co., Liverpool.—Vegetable, animal, and mineral drugs; pharmaceutical products and accessories. 272

341 Usher, Rufus, Bodicote, Oxon.—Medicinal rhubarb; extract of henbane and dried henbane leaves; photographs of henbane plants. 272

342 Mackay, John, Edinburgh.—Articles of diet for invalid and table use. 273

343 Mellin, Gustav, London.—Non-farinaceous food for infants and invalids. 273

344 Goodall, Backhouse, & Co., Leeds. —Food for infants and invalids. 273

345 Lynch & Co., London.—Druggists' sundries and surgical instruments; spinal apparatus, chest protectors, feeding bottles, spray producers, poison bottles, etc. 276

346 Glasgow Apothecaries Co., Glasgow.—Surgical appliances and antiseptic dressings. 276

347 Mayer & Meltzer, London.—Surgical instruments. 276

348 Lee, Robert James, London.—Steam draft inhaler and disinfector. 276

348*a* Haywood, J. S., Nottingham.—Surgical bandages, belts, trusses, etc. 276

349 Turner, Archibald, & Co., Leicester.—Surgical braids and bandages. 276

350 Pulvermacher, Isaac Louis, London.—Electrical instruments for medical purposes. 276

353 Liverpool Spun Oakum Co., Liverpool.—Oakum, stypinm; pure antiseptic dressing for hospital use. 276

353*a* Clay, Randolph, & Co., London.—Portable invalid bed tray. 278

354 Turner, George, & Co., London.—Ambulances. 278

Hardware, Edge Tools, Cutlery, and Metallic Products.

355 Ward & Payne, Sheffield.
a Tools for carpenters, joiners, coachmakers, shipwrights, millwrights, masons, bricklayers, tanners, curriers, engravers, die-sinkers, plasterers; wood, stone, and metal carvers and turners, etc. 280
b Sheep shears. 281

356 Smith, John & Samuel, Low Bridge Works, Keighley, Yorkshire.—Engineers' and machinists' tools. (*In Machinery Hall.*) 280

357 Baker, William, London.—Awls, bodkins, needles for saddlers, packers, and upholsterers; screwdrivers. 280

358 Addis, J. B., & Sons, Arctic Works, Sheffield.—Tools for carving stone and wood; turning tools for iron, brass, ivory, hard wood, etc.; carpenters' tools. 280

359*a* Needham, John, Sheffield.—Cutlery, table and dessert knives and forks, fish eaters. 281

359*b* Wostenholm, George, & Son (limited), Sheffield.—Cutlery. 281

359*c* Brooks, Henry, & Co., London.—Metal stoppers and collapsible tubes for artists' colors. 281

359*d* Burnand, James, & Co., Sheffield. —Table cutlery, etc. 281

359*e* Needham, John, Sheffield.—Cutlery. 281

360 Neal, John, & Co., London.—Table, dessert, and fish cutlery. 281

360*a* Brookes & Crookes, Atlantic Works, Sheffield.—Pen, pocket, and table knives, scissors, razors, and dressing case instruments, cutlery. 281

360*b* Ryder, William Henry, Birmingham.—Taps for drawing effervescing wines or aerated waters. 281

360*c* Mayer & Meltzer, London.—Cutlery. 281

361 The Patent Nut & Bolt Co. (limited), London Works, near Birmingham.—Iron bolts, nuts, screws, rivets, and washers; fish and sole plates; fish bolts, spikes, and fang bolts. 284

362 Francis, Thomas, & Co., Birmingham.—Nails. 284

363 Baker, Christopher, & Sons, Birmingham.—Coffin furniture; cabinet and general brass fittings; rails, stair rods, nails, and bolts. 284

364 The Phosphor Bronze Co. (limited), London.—Phosphor bronze tools, locks, tubes, wire, sheet, steam fittings, parts of machinery, etc. 284

365 Adams, Robert, London.—Hinges and shoes, secure fastening bolts, weather-tight sill bars for French casements, etc. 284

366*a* Turner, George, & Co., London.—Screw anchor peg. 284

367*a* Ullathorne & Co., London.—Heel balls and shoe findings. 284

367*b* Turner, Archibald, & Co., Leicester.—Elastic fabrics. 285

Fabrics of Vegetable, Animal, or Mineral Materials.

368 Low, Son, & Haydon, London.—Brushes. 286

369 Kent, George Barton, & Co., London.—Brushes. 286

370 Culmer, W., & Sons, London.—Brushes used in decorative art. 286

371 Bevis, Henry, London.—Silk banner with emblematic designs. 288

372 Spill, Daniel, London.—Ivoride. 289

372*a* Barnard, Bradly, London.—Bassinettes, baskets, etc. 289

Carriages, Vehicles, and Accessories.

373 Windover, Charles Sandford, London.—Brougham, canoe, landau, Victoria, Parisian, and Stanhope phaeton. 292

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Vehicles.

374 Mulliner, H., & Co., Northampton.—Carriages. 292

375 McNaught & Smith, Worcester.—Barouche, landau, and broughams. 292

376 Thorn, Charles, Norwich.
a Carriages. 292
b Shooting and baggage cart. 294

377 Roberts, John, Manchester.—Parisian phaeton. 292

378 Hooper & Co., London.—Carriages and drawings. 292

380 Peters, Thomas, & Sons, London.—Carriages. 292

381 Thompson, Charles, London.—Perambulator. 293

381*a* Roberts, Digby, Coventry.—English bicycle. 293

382 Hawkins Bros., Hatherton Works, Walsall.—Bits, stirrups, spurs, chains, buckles, and general saddlery iron work. 296

383 Hudson, Samuel, Dublin.—Trace and shaft tug safety buckles; safety stirrup. (*In Swaine & Adeney's case.*) 296

384 Martin, Robert, Old Charlton, Kent.—Horse clipping machines; circular cutters for cutting the teeth of the above machines. (*In Machinery Hall.*) 296

385 Pollock, Sydney, London.—Apparatus for checking runaway and unmanageable horses. 296

---

387 Goodall, Chas., & Son, London.—Card printing. 424

388 Cohné, Sigismund, London.—Bearings requiring no lubricant. 573

389 Parkinson Bros., Burnley.—Spiced pickling vinegar. 660

(*N. B.—Certain exhibits in this Department, from Great Britain, are installed in Agricultural Hall, and catalogued in Part IV.*)

For classes of exhibits indicated by numbers at end of entries, see Classification, pp. 27–45.

A. LAMOTTE,

3, RUE ELZÉVIR, PARIS,

COMMISSION AGENT

For Chemical Products, Drugs, Colours, Dyes, and all Raw Material.

Agent for Merchants, Growers and Manufacturers at Industrial and Commercial Exhibitions.

SHELL BOX MANUFACTURERS,

J. JOHNSON & CO.,

Charterhouse Works,

LONDON, ENGLAND.

See Show Case in Industrial Hall.

SHELL COTTAGES,
HANDKERCHIEF & GLOVE BOXES,
TOY FURNITURE,
And all kinds of Ornamental Boxes.

Incorporated 1853.

EXCHANGE

Fire Insurance Company,

172 BROADWAY,

Corner Maiden Lane, NEW YORK.

ASSETS, JANUARY 1, 1876.

Cash Capital	*$200,010.00*
Surplus	*224,317.95*
Total Assets	*$424,327.95*

R. CARMAN COMBES, President.

ASHER TAYLOR, Vice-President.

C. S. VAN NORDEN, Ass't Vice-Pres't.

GEORGE W. MONTGOMERY, Secretary.

THOMAS B. PECK, Ass't Sec'y.

BRANCH OFFICE,

Southwest corner Fourth and Library Sts., Philadelphia.

MORDECAI D. EVANS, Manager.

NEW ZEALAND.

(*North of Nave, Columns 10 to 17.*)

Manufactures, Education and Science.

Chemicals.

1 Horler, John, Woolston, Canterbury.—Soap and mould candles. 201

2 Innes, W. M., Port Chalmers, Otago.—Cod-liver oil. 201

3 Louisson, T. B., Nelson.—Paint made from hematite ore. 202

4 Johnstone Brothers, Nelson.—Umber and red pigments made from hematite ore. 202

5 Grayling, W. S., Taranaki.—Extract of towai (Weinmannia racemosa); extract of hinau (Eldeocarpus dentatus). 202

Ceramics—Pottery, Porcelain, Glass, etc.

6 Kennedy Bros., Nelson.—Fire bricks. 207

Furniture and Objects of General Use in Construction and in Dwellings.

7 Greenfield & Stewart, Wellington.—Panel door made of rimu (Dacrydium cupressinum). 227

Yarns and Woven Goods of Vegetable or Mineral Materials.

8 Government of New Zealand.—Specimens of fabrics made from Phormium tenax. 233

Woven and Felted Goods of Wool, etc.

9 Webley Bros., Nelson.—Nelson tweeds made from New Zealand wool. 235

10 Cook, James, Nelson.—Woolen rugs, woven and dyed at Nelson. 239

Clothing, Jewelry, and Ornaments, Traveling Equipments.

11 Taylor, B. K., Wanganui.—Hat made of kiekie (cordyline). 251

12 Liardet, H. E., Wellington.
a Fancy articles made from feet and bones of sea birds. 254
b Feathers, muffs, collarettes, wristlets, etc. 256

13 Taylor, Mrs. Richard, Wanganui.—Ornamental satchel and table mat. 254

15 New Zealand Commissioners.—Garments and ornaments of the Maoris. 257

Fabrics of Vegetable, Animal, or Mineral Materials.

16 Moyle, Edward, Taranaki.—Cord made from phormium tenax. 287

17 Bevan, Thomas, jr., Otaki, Wellington.—Rope made from Maori dressed phormium, fish line, horse halter, lead line, twine. 287

18 Bevan & Sons, Otaki, Wellington.—Cord and twines made from Maori dressed phormium. 287

19 Kinross & Co., Hawke Bay.—Cordage and twines made from Maori dressed phormium. 287

20 Grant & Co., Otago.—Cordage made from phormium. 287

21 Auckland Patent Steam Rope Co.—Phormium rope. 287

22 Canterbury Flax Association, Christchurch.—Tarred and untarred cordage made from phormium. 287

23 Lennon, T., Christchurch.—Cordage, ropes, and twines, made from phormium. 287

24 Cook, James, Nelson.—Mats and matting made from phormium. 287

25 Simons & Malcolm, Nelson.—Door mats made from phormium. 287

Institutions and Organizations.

26 Colonial Museum, J. Hector, Director.—Garments and ornaments of the Maoris. 312

27 National Museum at Washington, J. Henry, Secretary.—Garments of the Maoris. 312

27*a* New Zealand Commissioners.—Weapons of the Maoris. 312

Engineering, Architecture, Maps, etc.

28 Government of New Zealand.—Geological maps of New Zealand, by James Hector. 335

29 Geological Survey Department, James Hector, Director.—Geological plans and sections. 335

30 Canterbury Museum, J. von Haast, Director.—Geological plans and sections. 335

31*a* Hector, J.—Relief Model of New Zealand, geologically colored. 335

32*b* Government of New Zealand.—Topographical map of the colony, engraved by E. Ravenstein. 335

Physical, Social, and Moral Condition of Man.

33 National Museum, Washington, J. Henry, Secretary.—Canoe paddles of Maoris; skulls of Maoris and Moriori from the Chatham Islands. 340

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

34 Woon, R. W., Wanganui.—Canoe paddles of the Maoris. 340

35 Government of New Zealand.—Statistics and census of New Zealand for 1874, prepared by W. R. E. Brown, Registrar-General. 345

35*a* Hector, J.—Transactions and Proceedings of the New Zealand Institute, Vols. I. to VII. 345

35*b* Vogel, Sir Julius.—Hand-book of New Zealand. 345

Painting.

35*c* Geological Survey Department, James Hector, Director.—Water color sketches by W. M. Cooper. 411

Engraving and Lithography.

35*d* New Zealand Commissioners.—Pictures from W. L. Buller's "Birds of New Zealand," drawn by J. H. Keulemans. 422

Photography.

36 Burton Bros., Dunedin.—Views of scenery of South Island. 430

36*a* Bothamley, A. T.—Photographs of Maoris. 430

37 Government of New Zealand.—Views of scenery, etc., by H. Deveril. 430

38 Taranaki Committee.—Views of New Plymouth and surrounding country. 430

38*a* Hector, J.—Photographs exhibiting domestic life of the Maoris. 430

39 Mundy, D. L.—Views of scenery, foliage, buildings, gold mining, etc. 430

Railway Plant, Rolling Stock, etc.

40 Government of New Zealand.—Photographs of engines and engineering works used in New Zealand. 570

Arboriculture and Forest Products.

41 Cruickshank, J. D., Upper Hutt Saw Mills, Wellington.—Section of trunk of rimu (Dacrydium cupressinum), red pine of settlers. 600

42 Westland Committee.—Specimens of woods with bark. 600

43 Taranaki Committee.
a Specimens of woods. 601
b Barks of the Atawhero and the Pukatea; earth used by the Maoris as a mordant for dyes. 602
c Dried ferns; fungus exported as food to China; esculent fern root; birds' nest fungus and curious parasite. 604

44 Black, W. B., American Coach Factory, Wellington.—Specimens of woods. 601

45 New Zealand Commissioners.—Specimens of woods. 601

46 Grayling, W. S., Taranaki.—Bark of hinau; blue earth, used by the Maoris, mixed with shark oil, as blue paint. 602

47 Colonial Museum, Wellington, James Hector, Director.—Tanbarks, native to New Zealand. 602

49 Walker, Renwicks & Co., New York.—Kauri gum. 603

50 Forbes, R. W., New York.—Kauri gum. 603

Agricultural Products.

51 Banks, E. H., Christchurch.—Oats and other cereals. 620

52 Wood, W. D., Christchurch.—Wheat. 620

53 Cunningham, P., & Co., Christchurch.—Wheat grown in Canterbury. 620

54 Ruddenklau, J. G., Addington, Canterbury.—Wheat. 620

55 Hooper & Dodson, Nelson.—Hops. 623

56 Wilkin, Robert, Christchurch.—Perennial rye grass and cocksfoot seed. 624

57 Armstrong, J. B., Christchurch.—Phormium seeds. 624

Animal and Vegetable Products.

58 Wilson, Thomas, Woolston, Canterbury.—Saddle, harness, and shoemakers' leather; fancy colored skins for shoemakers and bookbinders. 652

59 Armitage, Taranaki.—Dressed kip and calf leather. 652

60 Morris, Thomas, Oamaru, Otago.—Gentleman's town saddle. 652

61 National Museum, Washington, J. Henry, Secretary.
a Specimens of kiwi; skeleton and bones of moa. 652
b Egg of the kiwi, and model of egg of moa. 653

62 Gilmour, John, Christchurch.—Hams and bacon. 656

63 New Zealand Provision & Produce Company, Christchurch.—Preserved meats. 656

64 Nairn, David, Addington, Canterbury.—Tomato sauce. 656

65 Trent Brothers, Woolston, Canterbury.—Chiccory in different stages of preparation. 657

66 Smith, James, Nelson.—Fruit wines. 660

67 Henderson & Farrah, Wanganui.—Ale and porter. 660

Horticulture.

68 Coates, Laning, Christchurch.—Live ferns. 707

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

NEW SOUTH WALES.

(*North of Nave, Columns 10 to 17.*)

Manufactures, Education, Art.

Chemical Manufactures.

1 Read, R. B., Randwick.—Extract, leaves, and berries of Smilacis glycyphylla, or Australian sarsaparilla. 200

2 Barrett & Co., Sydney.—Aerated waters and cordials. 200

3 Gilroy & Hurst, Sydney.—Baking, custard, egg, and butter powders. 200

4 Hunt, A. M., & Co., Goulburn.—Baking powders. 200

5 Swain & Co., Parramatta.—Washing fluid and soap. 201

6 New South Wales Shale & Oil Co., Sydney.—Kerosene oil, etc. 201

7 New South Wales Commissioners, Sydney.—Stearine candles. 201

8 Layton, Fred., Grafton, Clarence river.—Soap and candles. 201

9 Underwood, Thomas, Paddington.—Paints and paint pigment. 202

10 Hoff, M. Camille, Nakutakinna, New Caledonia.—Indigo. 202

Ceramics—Pottery, Porcelain, Glass, etc.

11 New South Wales Commissioners.—Churns, jars, etc. 210

Furniture, etc.

12 Lyons, Cottier, & Co., Sydney.—Stained glass staircase window—subject, "Captain Cook." 219

13 Hudson Brothers, Steam Joinery Mills, Sydney.—Window sashes, outside hall door, inside four-panel door, drapery panel door, French casements, cedar table legs. 227

Yarns and Woven Goods of Vegetable or Mineral Materials.

14 Read, John Cecil, Darlinghurst, Sydney.—Mats and matting made of cocoa fibre yarn, by aborigines of New South Wales and Frazer's Island. 229

15 Rudder, E. W., Kempsey.—Linens. 233

Woven and Felted Goods of Wool, etc.

17 New South Wales Commissioners.
a Tweeds. 235
b Shawls. 237

18 Jennings, P. A., Sydney.—Rug of tanned platypus skin. 239

19 New South Wales Commissioners. Wallaby skin rug. 239

Clothing, Jewelry, and Ornaments, Traveling Equipments.

20 Jennings, P. A., Sydney.—Collaret and cuffs of platypus skin. 250

21 Midgley, Mrs., Cook's River.—Wool flowers, copied from Australian native flowers. 254

22 Layton, Fred., Grafton.—Furs and skins of opossum, kangaroo, wallaby, and platypus. 256

Paper, Blank Books, and Stationery.

23 Government Printing Office, Sydney.—Blank books and printing. 261

Medicine, Surgery, Prothesis.

24 Spencer, John, Sydney.—Mechanical dentistry. 277

Fabrics of Vegetable, Animal, or Mineral Materials.

25 New South Wales Commissioners, Sydney.—Brushware. 286

26 New South Wales Commissioners, Sydney.—Manila rope, New Zealand flax rope, and lines. 287

27 Green, R., Sydney.—Cradles, flower stand, chair, perambulator; cane and willow work. 289

Carriages, Vehicles, and Accessories.

28 John Robertson, Sydney.—Buggy. 292

29 New South Wales Commissioners.—Lady's side saddle. 296

30 New South Wales Commissioners, Sydney.—Saddlery. 296

Educational Systems, Methods, and Libraries.

30*a* Government Printing Office, Sydney.—Books. 306

30*b* Sutherland, George.—Christian psychology. 306

30*c* Australian Museum.—Collection of birds, animals, etc. 312

30*d* New South Wales Commissioners.—Collection of birds. 312

Photography.

30*e* New South Wales Commissioners.—Photographs. 430

30*f* Holtermann, B. O.—Photographs. 430

30*g* Barnet, James.—Photographs. 430

30*h* Richards, Thomas.—Photo-lithographs. 430

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Forest and Agricultural Products, Animal and Vegetable Products.

Arboriculture and Forest Products.

31 Macarthur, Sir W., assisted by Hill & Hanrahan & J. Hassell.—Woods of southern districts. 600

32 Moore, Charles.—Woods indigenous to the northern districts. 600

33 Shoobert, James, Sydney.—Iron bark and turpentine timber. 600

34 Derepas, W., Yonngara Station.—Boree, and straight and curly yarran timber. 600

35 Hodgson, George, Redfern.—Timber from Bellinger river. 600

36 Penzer, J., Bundamar, near Dubbo.—Timber. 600

37 Du Faur, E., Sydney.—Timber from Mount Victoria. 600

37*a* New South Wales Commissioners.—Woods indigenous to New South Wales. 600

38 Hudson Bros, Botany Road, Redfern.—Timber. 600

39 Derepas, R., Yonngara.
a Yarran gum. 603
b Quondong nuts. 605

40 Harling, Mrs., & H. H. Field, Sydney.—Pressed ferns. 604

41 Moore, Charles, Botanic Gardens, Sydney.—Seeds, ginger-root, and bitter bark. 605

42 Hemmings, F. W., Loma Loma, Fiji.—Dried cocoanut. 605

43 Ryder Bros, Mango Island, Fiji.—Dried cocoanut. 605

Agricultural Products.

44 Lovegrove, W., Terrara, Shoalhaven river.—Maize. 620

45 Ryder Bros, Mango Island, Fiji.
a Maize. 620
b Beans. 621
c Turmeric and turmeric powder. 622

46 Peden, M. J., Bega.—Maize. 620

47 Demestre, E., Shoalhaven.—Maize. 620

48 Eggins, James, Grafton, Clarence river.—Maize. 620

49 Blain, C. R., Grafton, Clarence river.—Maize. 620

50 Macarthur, Sir W.—Maize. 620

51 Lewis Bros., Tamworth.—Wheat. 620

52 Dalton Bros., Orange.—Wheat. 620

53 Nelson Bros., Orange.—Wheat. 620

54 Jaeschke, Gustave, Clarence river.—Cigars and tobacco leaf. 623

55 Schweigert, W., & Co.—Cigars. 623

56 Muirhead, R., Grafton, Clarence river.—Cigars. 623

57 Hoff, M. Camille, Nakutakina, New Caledonia.—Coffee. 623

Land Animals.

59 Jennings, P. A., Sydney.—Stuffed platypus. 637

Water Animals, Fish Culture and Apparatus.

60 Hemmings, F. & W., Loma Loma, Fiji.—Bêche de mer. 643

Animal and Vegetable Products.

61 Secombe, R., Milton, Ulladulla.—Preserved milk. 651

62 Wright, Davenport, & Co., Sydney.—Leather. 652

63 Forsyth, J., & Sons, Sydney.—Leather. 652

64 Alderson & Sons, Sydney.—Leather. 652

65 Bell, H., Sydney.—Tallow and neat's-foot oil. 652

66 Hewitt, T. G., Grafton, Clarence river.—Tallow and neat's-foot oil. 652

67 Berry, J. S., Botany, Sydney.—Neat's-foot oil and glue. 652

68 Layton, Fred., Grafton, Clarence river.—Beeswax. 654

69 Sydney Meat Preserving Co., Sydney.—Preserved meats. 656

70 Squires, Elam, Penrith.—Preserved fruits, jams, and jellies. 656

71 Hoff, Camille, Nakutakina, New Caledonia.—Preserved pineapples. 656

72 Biddell Bros, Sydney.—Preserved lemons and oranges. 656

73 Moore, Charles, Botanic Gardens, Sydney.—Preserved lemons and oranges. 656

74 Watson Bros., Young.—Flour. 657

75 Lewis Bros., Tamworth.—Flour. 657

76 Cohen & Levy, Tamworth.—Flour. 657

77 Dalton Bros., Orange.—Flour. 657

78 Nelson Bros, Orange.—Flour. 657

79 Waters, James, Ravensdale, Brisbane Water.—Arrowroot. 658

80 Cole, W., & Son, Tomago, Hunter river.—Arrowroot. 658

81 Laurie, W. & L., Gloucester, Port Stephens.—Arrowroot. 658

82 Ryder Bros., Mango Island, Fiji.—Arrowroot. 658

83 Payne, George, Grafton, Clarence river.—Arrowroot. 658

84 Champion, George, Ulmarra, Clarence river.—Arrowroot. 658

85 Munn, A. L., Merimbula.—Maizena. 658

86 Colonial Sugar Refining Co.—Refined sugars. 659

87 Martin, George, Grafton, Clarence river.—Sugar. 659

88 Chowne, E. G., Ulmarra, Clarence river.—Sugars. 659

89 Biddell Bros., Sydney.—Confectionery. 659

90 New South Wales Co., Clarence river.—Raw sugars. 659

91 Fallon, James T., Albury.—Wines. 660

92 Munro, A., Bebeah, Singleton.—Wines. 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Vegetable Products, Textile Substances.

93 Carmichael, G. L. & J. B., Porphyry, Williams river.—Wines. 660

94 Brecht, Carl J. P., Rosemount, Denman.—Wines. 660

95 Powell, Edward, Richmond.—Wines. 660

96 Parnell, Montague, West Maitland, Hunter river.—Wines. 660

97 Wyndham, Wadham, Bukkulla, Inverell.—Wines. 660

98 Wyndham, George, Branxton, Hunter river.—Wines. 660

98*a* Doyle, J. F., Kaloodah, Lochinvar.—Wines. 660

99 Monk, D. J., Sydney.—Malt and wine vinegars. 660

100 Marshall, J., Paddington Brewery.—Ale and porter. 660

101 Hardie, John, Sydney.—Biscuits. 661

102 Layton, Fred., Grafton, Clarence river.—Castor oil. 662

Textile Substances of Vegetable or Animal Origin.

103 Hemmings, F. & W., Loma Loma, Fiji.—Cotton. 665

104 Ryder Bros., Mango Island, Fiji.—Cotton. 665

105 Hoff, Camille, Nakutakina, New Caledonia.—Cotton. 665

106 Moore, Charles, Botanic Gardens, Sydney.—Vegetable fibres of various kinds. 666

107 Rudder, E. W., Kempsey.—Fibre of gigantic nettle tree. 666

107*a* Cox, E. K.—Wool. 667

107*b* Cox, G. H.—Wool. 667

107*c* Cox, F. & A.—Wool. 667

107*d* Lamb & Roberts.—Wool. 667

107*e* Tindal, E. & A.—Wool. 667

107*f* Clive & Hamilton.—Wool. 667

107*g* Bettington, J. B.—Wool. 667

107*h* Loder, Andrew.—Wool. 667

107*i* King, P. G.—Wool. 667

108 Ramsay, D., Sydney.—Wool. 667

108*a* Shanahan & Jennings.—Wool. 667

108*b* Henty & Balfour.—Wool. 667

108*c* Learmonth, L.—Wool. 667

108*d* White, F. R.—Wool. 667

108*e* Caughey, S. M.—Wool. 667

108*f* Campbell, D. H.—Wool. 667

108*g* Wilson, A.—Wool. 667

108*h* Loder, A.—Wool. 667

108*i* Lethbridge, G. L.—Wool. 667

109 Lowe, A. H., Dynevor.—Wool. 667

109*a* Hume, E. B.—Wool. 667

109*b* Bowman, E. & A.—Wool. 667

109*c* Brown, T., & Co.—Wool. 667

109*d* Gell, P. H.—Wool. 667

109*e* Gilbert, A. N.—Wool. 667

109*f* Macdonald, J. L.—Wool. 667

109*g* Allen, J.—Wool. 667

109*h* Brodribb, W. A.—Wool. 667

110 May, J. M., Randwick, near Sydney.—Silk materials from the grain to the manufacture, produced by the inmates of the Asylum for Destitute Children, Randwick. 668

111 Thorne, George, Sydney.—Cocoons and cards of eggs desiccated and pierced, grown at Claremont, Rose Bay, Sydney. 668

Agricultural Engineering and Administration.

112 Bell, H., Sydney.—Bonedust. 681

113 Berry, J. S., Botany.—Bonedust. 681

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

VICTORIA.

(North of Nave, Columns 11 to 13.)

Chemical Manufactures, Ceramics, Furniture.

Chemical Manufactures.

1 **Bosisto, Joseph, Richmond, Melbourne.**—Chemical and pharmaceutical preparations obtained from the eucalyptus or gum trees of Australia, and other indigenous vegetation. 200

3 **Hood & Co., Melbourne.**—Chemical and pharmaceutical preparations. 200

4 **Lewis & Whitty, Fitzroy.**—Washing and baking powders, ball blue. 200

5 **Stringer & Co., Melbourne.**—Baking powder. 200

6 **Sullivan, Joseph, Melbourne.**—Poor man's filter; disinfectants fluke specific and lick, hydrated silicate of aluminum. 200

7 **Woodward, George, Kew.**—Guano, deodorants, block of deodorized night-soil. 200

8 **Fitts, Charles, & Son, Emerald Hill.**—Neat's-foot and trotter oil. 201

8*a* **Apollo Stearine Candle Co. (limited),** Footscray.—Stearine and paraffin candles, and products. 201

9 **Kitchen & Sons, Melbourne.**—Stearine and large carriage candles. 201

10 **Borthwick, Alex., Melbourne.**—Varnishes, anti-fouling composition for ships' bottoms, enameled cast iron pedestal pillars, anti-corrosive paint. 202

11 **Bowman, John S., Melbourne.**—Colonial crayons. 202

12 **Commissioners for Victoria, for the Philadelphia Exhibition, Melbourne.**—Crayons. 202

13 **Lewis & Whitty, Melbourne.**—Blacking. 202

14 **Hogg, S. P., & Co., Melbourne.**—Curry powder. 203

15 **Lewis & Whitty, Fitzroy.**—Hair oil, essences, curry powder. 203

16 **Perry, Hunter, & Co., Sandhurst.**—Safety fuse. 204

Ceramics—Pottery, Porcelain, Glass, etc.

17 **Birmingham & Lacy, Brunswick.**—Red building and white pressed and moulded bricks. 206

18 **Nolan, Luke, Brunswick.**
a Stoneware drain pipes. 206
b Bronze vases, stone porous jugs, patent damp-proof for floor ventilation. 210

19 **Commissioners for Victoria, for the Philadelphia Exhibition, Melbourne.**
a Fire-clay crucibles. 207
b Encaustic tiles, trusses, vases, etc. 208
c Earthenware and pottery. 210
d Glassware. 216

20 **Adams, R. T., Melbourne.**—Filters. 210

21 **Bendigo Pottery Co., Sandhurst.**—Earthenware worm for still. 210

23 **Ferguson & Urie, Melbourne.**—Stained glass for windows. 214

24 **Gledhill, Melbourne.**—Glass bottles. 215

25 **Melbourne Glass Bottle Works Co.,** Emerald Hill.—Glass bottles. 215

26 **Mount & Co., Emerald Hill.**—Glassware. 215

Furniture, etc.

27 **Alcock & Co., Melbourne.**—Blackwood billiard table with appliances; console table. 217

28 **Carr & Sons, Melbourne.**—Window blinds, window sash, with Venetian shutters, etc. 217

29 **Davis, J., Richmond.**—Window sash. 217

30 **Hodgson Bros., Sandhurst.**—Self-acting Venetian blind, spring roller blind. 217

31 **McEwan, James, Melbourne.**—Sideboard. 217

32 **Muschialli, Lewis, Melbourne.**—Pier glass, console table. 217

33 **Baker, John, Emerald Hill.**—Safety steps. 220

34 **Wiegmann, August, Melbourne.**—Basketware cradles, perambulators, chairs and flower stands, baskets. 221

35 **Walker, A. R., Melbourne.**—Gas cooking stoves. 222

36 **Shaw, Alfred, & Co., Melbourne.**—Millet brooms and whisks. 224

37 **Guthrie, G. D., Epsom, Sandhurst.**—Collection of pottery ware for household use, etc. 224

38 **Bogle, Andrew, & Co., Melbourne.**—Boot and shoe brushing and cutters' polishing and sharpening machine. 224

39 **Draper & Sons, Melbourne.**—Earth-closets and fittings. 226

Yarns and Woven Goods of Vegetable or Mineral Materials.

40 **Commissioners for Victoria, for the Philadelphia Exhibition, Melbourne.**—Flax, ropes, lines, twines, etc. 229

41 **Donaghy, Michael, Geelong.**—Ropes and lines. 229

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Woven Fabrics, Paper, Weapons, Vehicles, Art.

42 Miller, James, & Co., Melbourne.—Ropes and lines. 229

43 McPherson, Thomas, Melbourne.—Corn sacks, wool packs, and sugar bagging. 229

Woven and Felted Goods of Wool, etc.

44 Barwon Woolen Mill Co., Geelong.
a Tweeds. 235
b Blankets. 237

45 Gray, Alexander, & Co., Albion Woolen Mills, Geelong.—Plain and fancy tweeds. 235

46 Ballarat Woolen Co., Ballarat.—Shawls, tweeds, blankets. 237

47 Director of Botanic Gardens, Melbourne.—Dyed woolen cloth and silk. 238

48 Robertson, John, Melbourne.—Dyed Angora goat's fleece. 240

49 Zoological and Acclimatization Society, Melbourne.—Angora goat's hair. 240

Silk and Silk Fabrics.

50 Commissioners for Victoria, for the Philadelphia Exhibition, Melbourne.—Silk cocoons from the Acclimatization Society, Victoria, and Mrs. Bladen Neill; cultivated silk, in cocoons and hanks, also bleached, dyed, and worked upon llama. 242

51 Timbrell, Ann, Collingwood.
a Cocoons produced by silkworms from Japan, France, Italy, and Greece. 242
b Silk (raw material in hank). 243
c Victorian silk, worked on Brussels net. 246

52 Victoria Ladies' Sericulture Co. (limited), Castlemaine.—Silk, desiccated and pierced cocoons. 242

Clothing, Jewelry, and Ornaments, Traveling Equipments.

53 Ford Brothers, Melbourne.
a Pith hats, in felt, silk, merino, etc. 251
b Pith sunshades for horses. 254

54 Inspector-General of Penal Department, Melbourne.—Boots and shoes. 251

55 Rosier, John, Melbourne.—Boots and shoes. 251

56 Commissioners for Victoria, for the Philadelphia Exhibition, Melbourne.
a Myall pipes; rouleau boxes of myall wood. 254
b Address-case of inlaid leather. 255

57 De Richelieu, Madam F., Windsor.—Ornaments made from fish scales, etc. 254

58 Pausacker, Evans, & Co., Melbourne.—Registered edge, solid leather portmanteaus. 255

Paper, Blank Books, Stationery.

59 Botanic Gardens, Director of, Melbourne.—Paper made from various barks, stems, and stems and leaves. 260

60 Ramsden, Samuel, Melbourne.—Various grades of paper, including cartridge, printing, and wrapping paper. 260

Weapons, etc.

61 Commissioners for Victoria, for the Philadelphia Exhibition, Melbourne.
b Aboriginal weapons, native axe. 268

Medicine, Surgery, Prothesis.

62 Stanway, W., South Yarra.—Models of chairs for invalids. 279

Hardware, Edge Tools, Cutlery, and Metallic Products.

63 Danks, John, Melbourne.—Valves, cocks, lubricators, injectors, *et c.* 284

64 McIlwraith, John, Melbourne.—Gas pipe and tin tube. 284

Fabrics of Vegetable, Animal or Mineral Materials.

64*a* Commissioners for Victoria, for the Philadelphia Exhibition, Melbourne.—Victorian and English ensigns. 288

Carriages, Vehicles, and Accessories.

(*For farm vehicles and railway carriages, see Departments of Agriculture and Machinery.*)

65 Stevenson & Elliott, Melbourne.—Landau. 292

66 Bothwell, Wade, Melbourne.—Harness, saddles, whips, etc. 296

67 Glenister, W. A., Geelong.—Axles, Colling's crank, etc. 296

68 Stoneman, Alfred, Richmond.—Carriage springs. 296

Sculpture.

69 Commissioners for Victoria, for the Philadelphia Exhibition, Melbourne.—Medals of the Victorian Intercolonial Exhibition, 1875; seals of the Melbourne Public Library, University, and Exhibition of 1862. 402

Painting.

70 Campbell, O. R., Windsor.—Crossing the Plains. 410

71 Commissioners for Victoria, for the Philadelphia Exhibition, Melbourne.—Heraldic painting on panels. 410

72 Curtis, J. W., Melbourne.—Track off the Point Nepean road. 410

73 Guerard, E. Von, Melbourne.—Pulpit rock, Phillip Island, Ballarat, in 1873. 410

74 Johnston, H. J., Melbourne.—Summer Sunset. 410

75 Whitehead, Isaac, Melbourne.—Dandenong State Forest. 41

Engraving and Lithographing.

76 Bowman, John S., Melbourne.
a "The Knob in the Alps," crayon, Miss Bowman.
b "In the Alps," crayon, Miss Adams.
c "Fall from the Omeo Plains," crayon.
d "Valley in North Gippsland," crayon.
e "A Pool in the Otway Ranges," crayon, F. Shaw.
f "Bushy Park," crayon. 420

77 Commissioners for Victoria, for the Philadelphia Exhibition, Melbourne.—Lithographs of fossils, roots, and seeds. 423

Photography.

'8 Ararat, 'Shire Council of, Ararat.—Photographic views and statistics of the shire. 430

79 Batchelder & Co., Melbourne.—Photographs of persons born in the colony of Victoria. 430

80 Bock, Henry, Gippsland.—Photographs of Victorian native flowers. 430

81 Chuck, T. F., Melbourne.—Photographs of persons born in the colony of Victoria. 430

82 Colac, Shire Council of, Colac.—Photographic views of the district. 430

83 Commissioners for Victoria, for the Philadelphia Exhibition, Melbourne.
a Photographic views of scenery, public and private buildings, cattle, etc. 430
b Biographical charts of the schools of Venice and the Venetian state schools. 432

84 Creswick, Borough Council of, Creswick.—Photographic views and statistics of the borough. 430

85 Darebin Shire, Council of, East Bourke.—Photographic views and statistics of the shire. 430

86 Echuca, Borough Council of, Echuca.—Photographic views and statistics. 430

87 Emerald Hill, Borough Council of, Emerald Hill.—Photographic views. 430

88 Hotham, Town Council of, Hotham.—Photographic views and statistics of the town. 430

89 Johnstone, O'Shannessy & Co., Melbourne.—Photographs of persons born in the colony of Victoria, photographs colored in oil. 430

90 McDonald, D., St. Kilda.—Photographic views. 430

92 Phœnix Foundry Co. (limited), Ballarat.—Photograph of locomotives, engine, and tender, manufactured for the Victorian government. 430

93 Prahran, Town Council of, Prahran.—Photographic views and statistics of the town. 430

94 Robertson Brothers, Colac.—Colored photographs of cattle, bred by exhibitors. 430

95 Sandhurst, City of, Sandhurst.—Photographic views and statistics of the city. 430

96 Stewart & Co., Melbourne.—Photographs of persons born in the colony of Victoria. 430

97 Surveyor General of Victoria, Melbourne.—Photographic views of botanical and other gardens. 430

98 Wangaratta, Shire Council of, Wangaratta.—Photographic views and statistics of the shire. 430

99 Willett, G., Ballarat.—Colored photographs. 430

100 Wilson, Sir Samuel, Ercildoun.—Photographs; team of Hereford bullocks, bred by himself; prize sheep; his residence, etc. 430

101 Melbourne, City of.—Photographic views of city. 430

Industrial and Architectural Designs, etc.

102 Dowling, William, Emerald Hill.—Centre flowers, trusses. 442

103 Heathcote, T. S., Carlton.—Painted panels. 442

104 Murphy, Edward, Sandridge-road.—Centre flowers, and ventilators, ornamental chimney cap. 442

105 Patterson Brothers, Carlton.—Tablets of imitation wood and marble. 442

106 Pepper, George, Windsor.—Plasterers' models, ceiling and wall ventilators. 442

Machines, Tools, etc., of Mining, Chemistry, etc.

107 Morrison, L. K., Melbourne.—Abyssinian tube-wells and pumps, with boring apparatus. 501

108 White, David, Stawell.—Safety hook, to prevent accidents from overwinding in mining claims. 503

109 O'Malley, Edmund, Melbourne.—Ventilating safety cage, for mines. 504

110 Harkness, A., & Co., Victoria Foundry, Sandhurst.—Disk, fitted on screwed stamper shank, and showing principle; cam or wiper. 505

111 Perry, Davis, & Co., Sandhurst.—Stamper gratings. 505

Railway Plant, Rolling Stock, etc.

112 Cornish & Co., Melbourne.—Seats for railway carriages. 571

113 Stoneman, Edward, Richmond.—Railway truck spring. 573

Aerial, Pneumatic, and Water Transportation.

114 Cornish & Co., Melbourne.—Life-preserving buoys, mattresses, belts, rafts, etc.; seats, couches, and mattresses for ships. 590

Arboriculture and Forest Products.

115 Bass River Steam Saw-Mills, Bass river.—Blue gum timber. 600

116 Director of Botanic Gardens, Melbourne.
a Carpological collection; barks, polished woods, fibre and tow prepared from barks, leaves, and stems. 600
b Resins, gums, oleo fat, and caoutchouc. 603

117 Lands and Agriculture, Department of, Melbourne.—Native woods. 600

118 Commissioners for Philadelphia Exhibition, Melbourne.
a Boxes, paper knives, and tubs, made of Victoria woods. 601
b Myall and grass-tree gum, rubber and rubber stamp. 603

119 Clark, John, & Sons, Melbourne.—Wattle bark. 602

Agricultural Products.

120 Taylor, John, Allansford.—Adelaide wheat, grown at Merunga, near Warrnambool. 620

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Agricultural, Animal, and Vegetable Products.

120*a* Patience, John, Ichuca.—Purple straw wheat. 620

120*b* Wright, Thomas Spencer, Rochester.—Purple straw wheat. 620

120*c* Kelly, Mortimer, Bridgewater.—Wheat. 620

120*d* Patterson, J. Matthew, Loddon.—Wheat. 620

121 St. Arnaud Pastoral & Agricultural Society, St. Arnaud.—Short oats, wheat, barley. 620

121*a* O'Reilly, Thomas, Toolamba.—Wheat. 620

121*b* Adams, John, Wahring.—Wheat. 620

121*c* Smith, George, Ballard.—White Tuscan wheat. 620

122 Scott, James, Indigo, Chiltern.—Wheat. 620

123 Commissioners for Philadelphia Exhibition, Melbourne.
a Collection of varieties of wheat and grass-tree plant. 620
b Collection of beans. 621

124 O'Keefe, Andrew, Adelaide Vale, Clare Inn.—Purple-straw wheat. 620

125 Myring, Joseph, Campbell's Creek, Castlemaine.—Barley. 620

126 Adams, James, Wahring.—White Tuscan wheat. 620

127 Laidlay, John, Bundoora, Plenty-road.—Wheat. 620

128 McNair, Angus, Bellerine East.—New fodder-pea. 620

129 Stewart & Ferguson, Indigo, Chiltern.—Wheat. 620

130 Connor, James, Allansford.—Fox-tail oats, grown at Merunga, near Warrnambool. 620

131 Schmitt, Lewis, Mornington.—Wheat. 620

132 Buckley, Edward, Newbridge, Loddon.—Red-straw wheat from counties of Gladstone and Bendigo, oats. 620

133 Jack, John, Oxley Plains, Ovens District.—Frampton white wheat, grown on chocolate soil after English grass. 620

134 Northeastern Pastoral & Agricultural Society, Murchison.—Wheat grown by J. McNab, Tabilk. 620

134*a* Catlin, James, Runnymede.—Purple-straw, white Tuscan and other wheats. 620

135 Moncrieff, John, Tabilk, Goulburn river.—Purple-straw and white wheat. 620

136 Gilmour, Andrew, Colomsky, Buangor.—Oats from parish of Ballyrogan. 620

136*a* Ararat Flour Mill Co. (limited).—Prime miller's wheat. 620

137 Rossi, Thomas, Dry Diggings, near Daylesford.—Purple-straw wheat. 620

138 Polson, Angus, Chapman, Moyston.—English barley, Tartarian oats, purple-straw and white wheat. 620

139 West Bourke Pastoral & Agricultural Society, Romsey.—White Tuscan wheat, grown by Hon. T. F. Hamilton. 620

140 Aboriginal Mission Station, Coranderrk.—Hops. 623

141 McKenzie, James F., & Co., Melbourne.—Coffee, chiccory, cocoa, and chocolate made from Trinidad nuts; mustard, spices. 623

Land Animals.

142 Commissioners for Victoria, for the Philadelphia Exhibition, Melbourne.
a Water fowl, stuffed by Chas. French. 635
b Manna, with the insect producing it. 638

143 St. John, F., Melbourne.—Ducks, plover, grouse, quail, black swan, etc. 635

144 Grimwood, Thomas, Fern Tree Gully.—Quail, snipe, landrail. 635

145 Gaskell, Joseph, Melbourne.—Australian snipe. 635

146 Robertson, W. W., Richmond.—Australian native birds. 635

147 Gaskell, Joseph, Melbourne.—Wild animals. 637

148 Godfrey, F. R., Melbourne.—Wild animals. 637

149 McCoy, Prof., Melbourne University.—Wild animals, and black swan. 637

150 French, C., Melbourne.—Australian longicorns, buprestidal, lepidoptera, etc. 638

151 Timbrell, Ann, Collingwood.—Japan silkworms, modeled in wax. 638

Water Animals, Fish Culture and Apparatus.

153 St. John, F., Melbourne.—Fish. 641

Animal and Vegetable Products.

154 Bird, George, Inkerman, Lyndhurst.—Cheese. 651

155 Pierce, G. G., Melbourne.—Cheese. 651

156 Riddle, J., Lancefield.—Cheese. 651

157 Clark, John, & Sons, Melbourne.—Leathers, skins, basils. 652

158 Commissioners for Victoria, for the Philadelphia Exhibition, Melbourne.—Rugs made from skins of Victorian animals. 652

159 Fink, M., Geelong.—Skins. 652

160 Quinn, H. S., Richmond.—Dyed and white wool mats, kangaroo glove leathers. 652

161 Brearley Brothers, Geelong.—Sole leather. 652

162 Dunckley & McBride, Melbourne.—Sash lines, whip gut, gut lathe bands, sausage casings. 652

163 Pearse Brothers, Fremantle, Western Australia.—Hides, leather, skins. 652

164 Fitts, Charles, & Sons, Emerald Hill.—Glue. 652

165 Penal Department, Inspector-General of, Melbourne.—Leather. 652

166 Wallis & Co., Richmond.—Leather, goat skin mat. 652
Malt. 657

172 Bennett, T. K., Melbourne.—Preserved meats. 656

173 Director of Botanic Gardens, Melbourne.—Jam. 656

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Animal and Vegetable Products, Textile Substances.

174 Zorn, Edward, Clayton's-road, near Oakleigh.—Tomato and Oakleigh sauces. 656

175 Wright, Payne, & Co., South Yarra.—Fruit jams. 656

176 Watson & Paterson, Melbourne.—Hams, bacon, mess pork. 656

177 Western Meat Preserving Co., Colac.—Preserved meats. 656

178 Melbourne Meat Preserving Co., Melbourne.—Preserved meats. 656

179 Lyon, George, Beechworth.—Tomato sauce. 656

180 Grant, Mrs., Richmond.—Tomato sauce. 656

181 Comport, Henry, Cheltenham.—Tomato sauce. 656

182 Stringer & Co., Melbourne.—Mixed pickles, sauces, curry powder. 656

182*a* Boddy, Edward, Nagambie.—Flour. 657

182*b* Hood, F. & J., Melbourne.—Malt. 657

183 McKenzie, Jas. F., & Co., Melbourne.—Oatmeal, groats, brose meal. 657

183*c* Martin, P. J., Melbourne.—Malt. 657

184 Trouette & Blampied, Great Western, Ararat District.—Wines. 660

184*d* Myring, Joseph, Campbell's Creek, Castlemaine.—Malt. 657

185 Best, Joseph, Great Western, Ararat District.—Wine. 660

185*e* Perrin, William, jr., Richmond.—Malt. 657

186 Docker, F. G. & J. B., Wangaratta, Beechworth District.—Wine. 660

187 Evans, Henry, Beechworth District.—Wine. 660

188 Mellon, Francis, Dunolly, Castlemaine District.—Wines. 660

189 Botten, William, Eddington, Castlemaine District.—Wine. 660

190 Jung, Otto, Castlemaine, Castlemaine District.—Wines. 660

191 Schroeder, Castlemaine, Castlemaine District.—Wines. 660

192 Crippa, Fabrizzio, Hepburn, Castlemaine District.—Wine. 660

193 Greer & Co., Echuca, Echuca District.—Wines. 660

194 Vettler, John, Echuca, Echuca District.—Wines. 660

195 Weber, Jacob, Geelong, Geelong District.—Wine. 660

196 Deppeler, Jacob, Gheringhap, Geelong District.—Wine. 660

197 Ritchie, John, Murgheboluc, Geelong District.—Wine. 660

198 Bear & Ford, Tabilk Vineyard, near Seymour, Goulburn District.—Wine. 660

199 Egli, F., Tabilk, Goulburn District.—Wine. 660

200 Schmitt, Franz, Berwick, Melbourne District.—Wine. 660

201 Francis, Charles, Sunbury, Melbourne District.—Wines. 660

202 St. Hubert's Vineyard Co., Yering, Melbourne District.—Wines. 660

203 Johnston, J. S., Craiglie Vineyard, Sunbury, Melbourne District.—Wines. 660

204 Maplestone, Charles, Ivanhoe Lodge, Heidelberg, Melbourne District.—Wines. 660

205 Brasche, Charles, Sunbury, Melbourne District.—Wine. 660

206 Snowden, E. G., Boroondara, Melbourne District.—Wine. 660

207 Smith, G. S., Wahgunyah, Melbourne District.—Wine. 660

208 Pohl, Carl, Strathfieldsaye, Sandhurst District.—Wines. 660

209 Bruhn, Albert, Strathfieldsaye, Sandhurst District.—Wines. 660

210 Fuchs, Adolph, Strathfieldsaye, Sandhurst District.—Wines. 660

211 Fischer, August, Shamrock Vineyard, Emu Creek, Strathfieldsaye, Sandhurst District.—Wines. 660

212 Shaw, F. K., Goornong, Sandhurst District.—Wine. 660

213 Grosse, Frederick, Strathfieldsaye, Sandhurst District.—Wines. 660

214 Grosse, Fred., Toorongo Vineyard, Bendigo, Sandhurst District.—Wine. 660

215 Greiffenhagen, Wm., Strathfieldsaye, Sandhurst District.—Wines. 660

216 Brown, H. J., Australian Distillery, Melbourne.—Geneva spirits of wine. 660

217 Fuller, Alfred, Kew.—Ale, stout. 660

218 Henelly, James, Melbourne.—Ale. 660

219 Latham, Edward, Carleton Brewery, Carleton.—Ale, porter. 660

220 Martin, P. J., Melbourne.—Ale. 660

221 Reed, Henry, & Co., South Yarra.—Vinegar. 660

222 Steward, James, Eaglehawk, Sandhurst.—Ale. 660

223 Treacy, John, & Co., Geelong.—Ale, stout. 660

224 Warrenheip Distillery Co., Ballarat.—Whisky, Geneva spirits of wine. 660

225 Guest, T. B., & Co., Melbourne.—Fancy biscuits. 661

226 Smith & Son, West Melbourne.—Biscuits. 661

227 Swallow & Ariell, Sandridge.—Biscuits. 661

Textile Substances of Vegetable or Animal Origin.

228 Commissioners for Victoria, for the Philadelphia Exhibition, Melbourne.—Cotton. 665

229 Atkinson, Wm., Camperdown.—Teazles. 666

230 Longmire, Thomas, Koorooche-ang, Smeaton.—Flax stalks and seeds. 666

231 McPherson, Thomas, & Co., Melbourne.—Jute. 666

232 Armstrong, Alex., Warramtine, Shelford.—Wools. 667

233 Arnold, George, & Co., Melbourne.—Assorted wools grown by James Gibson, Cleveland, Tasmania; Wm. Gibson & Son, Scone, Tasmania; P. Russell, Langi Willi and Carngham, Victoria; Wm. Cumming, Mt. Fyans, Victoria; A. M. Campbell, Melaluka, Victoria; John

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45

Textile Substances, Agricultural Machinery, Fruits.

Macvean, Mooloomoon, Victoria; Thos. Russell & Co., The Plains, Victoria; G. W. Thomson, Challicum, Victoria; Thos. Millear, Green Vale, Victoria; Executors of late A. Russell, Mawallok, Victoria; Wm. Lewis, Stoneleigh, Victoria; J. & S. Austin, Mount Pleasant, Victoria; and Wm. Murray, Brie Brie, Victoria. 667

234 **Commissioners for Victoria, for the** Philadelphia Exhibition, Melbourne.—Wools; wool from S. Robertson, Geelong. 667

234*a* **Cumming, Thomas F., Stoney** Point. 667

235 **Currie, John Lang, Larra, Derimallum.**—Wools. 667

236 **Degraves, C. & J., Coliban Park,** Elphinstone.—Wool. 667

237 **Elder, W. & N. G., Elder, Rookwood.**—Wools. 667

238 **Gilbert, Alfred N., Warwilla Station, Wanganilla, Deniliquin.**—Wools. 667

239 **Goldsbrough, R., & Co.,** Melbourne.—Assorted wools, grown by James Alexander, Woodhouse station; R. & J. Ramsey, Narrow Plains station; Carter Bros., Glenisla station; J. & H. Orborne, Momalong Plains; A. & H. McCulloch, and others. 667

240 **Greeves, Edward G., Berriallock,** Skipton.—Wool. 667

241 **Hastings, Cunningham, & Co., The** Australian Wool Stores, Melbourne.—Fleeces of wool from the following breeders: H. Cattanach, Tellegara; C. W. Simson, Mundagal; Godfrey & Chambers, Pevensey; F. L. Parker, Quiamong; Everett & Watson, Tchelery and Nyang; Hon. Wm. Lang, M. L. A., Wargam; Hon. Phillip Russell, M. L. A., Carngham and Langi Willi; John L. Currie, Larra; Thomas Dowling & Sons, Jellalabad; executors of late A. Russell, Mawallock; Wm. Lewis, Stoneleigh; Ewan McPherson, Binduck; Godfrey McKinnon, Goonambill; Russell & Shaw, Eli Elwah; Rutherford Brothers, Saupua; Hon. Robert Simson, M. L. A., Langi Kal Kal; Nichol & Telford, Tarrawonga; Knight & Lydiard, Koorongah; Mount Battery Co., Mount Battery; Alfred Chenery, Delatite; Alexander Wilson, Mount Emu; J. G. Reeves, Footscray. 667

242 **Henty, Edward, Portland.**—Wools. 667

247 **Reeves, Isaac G., Footscray,** Melbourne.—Wool. 667

248 **Russell, Thomas, Barunah Plains,** Mount Hesse.—Wool. 667

249 **Rutledge, William, Farnham Park,** Warrnambool.—Fleeces. 667

250 **Rutherford, Andrew, Como, Kensington,** Geelong.—Wool. 667

251 **Synnot, Monckton, Melbourne.**—Wool. 667

252 **Synnot, George, & Co., Geelong.**—Wool. 667

253 **Thomas, C. T., North Sandridge.**—Dressed skin of pure Romney ewe, bred by R. Muldoon, Boos. 667

254 **Timms Brothers, Mount Hesse,** Beeac.—Wools. 667

255 **Watson, Alexander, Warribee.**—Fleeces. 667

256 **Wilson, Sir Samuel, Oakleigh Hall, East St. Kilda.**—Wools and fleeces. 667

257 **Wilson, John, Lismore.**—Wool. 667

258 **Howard, John, near Albury.**—Sample cocoons of mulberry silk-worms, with wound silk in its natural colors; floss silk; Japanese and Italian grain; hanks of suffocated and pierced cocoons. 668

Machines, Implements, and Processes of Manufacture.

259 **Lennon, Hugh, North Melbourne.**—Double-furrow plow. 670

260 **Bodington, Robert, Carlton.**—Sheep support on rollers. 674

Ornamental Trees, Shrubs, and Flowers.

261 **Commissioners for Victoria, for the** Philadelphia Exhibition, Melbourne.—Tree ferns from Dandenong State Forest and Mount Macedon; todea ferns from Mount Macedon. 707

262 **Commissioners for Victoria, for the** Philadelphia Exhibition, Melbourne.—Fac-similes of specimens of fruit, the originals of which were selected during the past season, modeled and arranged by Thos. McMillan:

a Apples and pears from Josiah Trevestan, Ballarat; Chas. Draper, Hazelghen; H. U. Cole, Twyford; Robert Whatmough, Greensborough; Horticultural Society of Victoria; John Harbison, Essendon; John Smith & Sons, Riddell's Creek; T. C. Cole; King & Sons, Fyansford; Geelong and Western District Agricultural and Horticultural Society; W. L. Hunt, Malvern; Chas. Allen, jr., South Brighton; Thos. Christian, Mount Macedon; W. Lawford, Doncaster; J. Carson; J. Roberts; H. Boyce; Mr Freike, Carisbrook; C. May, Sunbury; J. C. Cole, Richmond; J. D. Roberts, Hawthorne; Robt. Hepburn, Hawthorne, A. Stuart, Toorak; Geo. Kilroy, Caulfield; J. Weber, Geelong; Jas. Lang, Harcourt; Sir Redmond Barry; J. Banks, Flemington; Mr. James, Ballarat; Jos. Bosisto, Richmond; and Joseph Webster Wahgunyah.

b Quinces from Sir Redmond Barry and J. Webber, Geelong.

c The medlar and the loquat.

d Peaches from C. Draper, R. Whatmough, W Lawford, J. McDonald, G. & W. D. Agricultural and Horticultural Society

e Nectarines from R. Whatmough and market

f Apricots, plums, cherries, and olea europœa.

g Grapes, mulberries, figs, pomegranates, and oranges.

h Kau apples from Mr. Graham and the Melbourne Botanical Gardens.

i Gooseberries from Thos. Lang & Co. and F. Moss, Buninyong.

j Black, red, and white currants from Thos. Lang & Co.

k Raspberries from Henry Boyce

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp 27-48

Fruits, Flowers.

l Almond, walnut, and hazel nuts.
m Strawberries.
n Tomatoes from Horticultural Society's Gardens; W. Chandler, Scoresby; and King & Son, Fyansford.
o Egg apple from H. J. Dines.
p Cape gooseberries and capsicums.
q Book collection of plants, shrubs, trees, and herbs. 709

263 Gaskell, Mrs., Melbourne.—Facsimiles of Victorian bush flowers. 709

SOUTH AUSTRALIA.

(*North of Nave, Columns 10 to 17.*)

COLLECTIVE EXHIBIT.

Minerals, Chemicals, Manufactures, Clothing.

Minerals, Ores, Stone, Mining Products.

1 Clark, F., & Sons, Adelaide.—Iron ores. 100
2 Balhannah Mining Co., Adelaide.—Copper ores and bismuth. 100
3 North Yelta Mine, near Adelaide.—Copper ores. 100
4 Moonta, Wallaroo, and other mines, near Adelaide.—Copper ores. 100
5 Crabb, R. S., Adelaide.—Azurite and malachite from the Burra Burra mine, near Adelaide. 100
5*a* South Australian Commissioners.—Specimens of gold quartz from the northern territory. 100
5*b* Coozong Oil & Coal Co.—"Coozongik," a mineral caoutchouc. 100
COLLECTIVE EXHIBIT OF AURIFEROUS QUARTZ FROM THE NORTHERN TERRITORY OF SOUTH AUSTRALIA, BY THE COMMISSIONERS, FOR THE FOLLOWING OWNERS. 100
6 Ayliffe, I. H., W. Union Mine.
7 Becker, I., Yam Creek.
8 Brese & Starke, Extended Union Mine.
9 Caledonia New Amalgamated Co.
10 Golden Stream Claim.
11 Griffiths, W. K., South Union Mine.
12 Grove Hill Co.
13 Gunn, J. H., Britannia Reef.
14 Lewis, John, Pine Creek.
15 Bernardo, M., Pine Creek.
16 New Telegraph Co.
17 Sandy Creek Claim.
18 Shepperd, E., John Bull Reef.
19 Sandy Creek Puddling Co.
20 Tripp, J. P., Lady Alice & Union Reef.
21 Union Prospectors Co.
22 Whitelaw, E. H., Pine Creek.
23 Westcott, J. S., & Wisendunger, I., North Union Mine
24 South Australian Commissioners, Adelaide.—Marble, sandstone, and slate from quarries near Adelaide. 102

Chemical Manufactures.

25 Barnard, George L., Adelaide.—Olive oil. 201
26 Davenport, Samuel, Adelaide.—Olive oil. 201

Yarns and Woven Goods of Vegetable or Mineral Materials.

27 Knight, J. G., Adelaide.
a String made from human hair. 229
b Native bag used by Lubras (women). 230

Clothing, Jewelry, and Ornaments, Traveling Equipments.

28 Steiner, Henry, Adelaide.
a Shell necklace, gold brooch and earrings; shell brooch and earrings set in gold. 253
b Silver-mounted emu vases and ornaments; silver oxidized metal-figured piano candlesticks. 254
29 Davenport, Samuel, Adelaide.—Emu eggs made up in imitation of jewelry. 253
30 Nitscke, W., Adelaide.—Copper vase, cross, and pipe; silver cups made from a dollar and a five-franc piece; teapot made from a shilling. 254
31 Knight, J. G., Adelaide.—Aboriginal ornaments from the northern territory of South Australia. 254

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

32 Steiner, Henry, Adelaide.—Silver-mounted emu egg inkstands. 254

33 Wendt, J. M., Adelaide.—Silver-mounted emu egg inkstand. 254

34 South Australian Commissioners, Adelaide.—Skins of indigenous birds and animals of South Australia made into muffs, collarettes, etc. 256

Military and Naval Armaments, Ordnance, Fire Arms, and Hunting Apparatus.

35 Knight, J. G., Adelaide.—Aboriginal weapons from the northern territory of South Australia. 269

Hardware, Edge Tools, Cutlery, and Metallic Products.

36 South Australian Commissioners, Adelaide.—Iron castings made from Adelaide ore. 283

Educational Systems, Methods, and Libraries.

37 South Australian Commission, Adelaide.—Herbarium, comprising specimens of all the known plants indigenous to South Australia, prepared by Dr. Schomburgk, director of the Botanic Gardens at Adelaide. 301

38 Adelaide Museum, Adelaide, F. G. Waterhouse, curator.—Collection of birds, mammals, reptiles, skins of animals, and eggs of South Australia. 301

Engineering, Architecture, Charts, Maps, and Graphic Representations.

39 South Australian Commissioners, Adelaide.—Statistical records and maps relating to South Australia, compiled by the Surveyor-General. 335

Photography.

40 Scott, G. B., South Australia.—Photograph of northern territory of South Australia. 430

41 South Australian Commission, Adelaide, South Australia.—Photographs descriptive of town, pastoral, and farming life in South Australia, the Adelaide Botanic Gardens, suburban views, and mining. 430

42 Angas, G. H., Collingwood, near Adelaide.—Photographs of stud stock. 430

Arboriculture and Forest Products.

43 Hardy, Arthur, Mt. Lofty, near Adelaide.—Cork from tree raised from an acorn imported from Spain in 1864. 600

44 Davenport, Samuel, Adelaide.—Woods, useful and ornamental. 600

45 South Australian Commissioners, Adelaide.
- *a* Woods, useful and ornamental, from the northern territory of South Australia, forwarded by J. B. Scott, government resident; woods from the neighborhood of Adelaide, collected by Mr. Mais, engineer in chief, and others. 600
- *b* Fungi, supplied by W. B. Hughes, northern territory of South Australia. 604
- *c* Red berries (seeds of the creeping licorice) and corkscrew pine seeds, from J. E. Kelsey and W. B. Hughes, northern territory of South Australia. 605

46 Wilke, H., & Co., Port Adelaide.—Barks for tanning; ground and chopped mimosa (black wattle), and ground acacia. 602

47 Knight, J. G., Adelaide.—Bark from the northern territory of South Australia. 602

Pomology.

48 South Australian Commissioners, Adelaide.—Wax models of fruit taken from originals grown in South Australia. 610

Agricultural Products.

49 Carling, Thomas, Adelaide.—Wheat. 620

50 Riggs, John, Adelaide.—Wheat. 620

51 Young, C. B., Adelaide.—Wheat. 620

52 South Australian Commissioners, Adelaide.
- *a* Wheat, barley, oats, and rye. 620
- *b* Peas. 621
- *c* Linseed; hemp, rape, sunflower, prairie and rib grass seed. 624

53 Kelsey, J. E., Mt. Gambier, Adelaide.—Hops, grown in volcanic soil. 623

Water Animals, Fish Culture and Apparatus.

54 Cardwell, Robert, Port Essington, northern territory of South Australia.—Trepang, cured at the fishery, Port Essington, northern territory of South Australia. 644

Animal and Vegetable Products.

55 Kemp, W., Adelaide.—Sheepskin mats. 652

56 Angas, J. H., Collingwood, near Adelaide.—Sheepskins; skins of the spotted emu. 652

57 South Australian Commissioners, Adelaide.
- *a* Dressed skins of the kangaroo, wallaby, and other indigenous animals; also, skins made up in designs. 652
- *b* Emu eggs. 653
- *c* Raisins, plums, figs, and currants. 656
- *d* Wines. 660

58 Davenport, Samuel, Adelaide.
- *a* Skins of native animals and birds. 652
- *b* Emu eggs. 653

59 Bagot, E. M., Adelaide.—Extract of meat. 656

60 Hardy, Thomas, Adelaide.
- *a* Raisins and currants. 656
- *b* Wine. 660

61 Murray, Alexander, near Adelaide.—Jams, jellies, and marmalades. 656

61*a* McEwen, George, Adelaide.—Assorted jams. 656

62 Dunn, John, & Co., Adelaide.—Flour. 657

63 Magarey, Thomas, & Co., Adelaide.—Flour. 657

64 Cowan, Thomas, & Co., West Adelaide.—Flour. 657

65 Gilbert, Joseph, Pewsey Vale, Adelaide.—Wine. 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

66 Clark & Crompton, Adelaide.—Wines. 660

67 Richman, J.W., Watervale.—Wines. 660

68 Quick, H. C., Marden, Adelaide.—Wines. 660

69 Ross, R. D., Highercombe, Adelaide.—Wines. 660

70 Kaines, John H., Adelaide.—Wines. 660

71 Auld, Patrick, Magill, Adelaide.—Wines. 660

72 Barnard, G. L., Adelaide.—Wines. 660

73 Hornabrook, C. A., Adelaide.—Wines. 660

74 White, George, Rosefield, Adelaide.—Wines. 660

75 Baker, Isabella, Morialta, Adelaide.—Wines. 660

76 Gillard, Joseph, Adelaide.—Wines. 660

77 Ind, G. F., Paradise, Adelaide.—Wines. 660

78 Foote, Henry, Adelaide.—Wines. 660

79 Holbrook, J. D., Adelaide.—Wines. 660

80 Kelly, Dr., Tintara, Adelaide.—Wines. 660

81 Salter, W., & Son, Saltram, Adelaide.—Wines. 660

82 Davenport, Samuel, Beaumont, Adelaide.—Wines. 660

83 Martin, James, Gawler, Adelaide.—Wines. 660

83*a* Young, C. B., Adelaide.—Wine. 660

84 Thornber, Unley, Adelaide.—Wines. 660

85 Wright, E. W., Horne Park, Adelaide.—Wines. 660

86 Bickford, A. M., & Sons, Adelaide.—Bitters, quinine wine, and lime-juice cordial. 660

87 Davis, F. C., Adelaide.—Bitters and cordials. 660

88 Nitschke, W., Adelaide.—Cordials and liquors. 660

Textile Substances of Vegetable or Animal Origin.

89 Angas, J. H., Collingrove, Adelaide.—Wool. 667

90 Keynes, Joseph, Keynton, Adelaide.—Wool. 667

91 Murray, John, Murrayvale, Adelaide.—Wool. 667

92 Graham, Thomas, Adelaide.—Wool. 667

93 Browne, W. J., Moorak, Adelaide.—Wool. 667

94 Hayward, Armstrong & Co., Wonoka, Adelaide.—Wool. 667

94*a* Crozier, W., Adelaide.—Wool. 667

95 McFarlane, Allan, Wellington Lodge, Adelaide.—Wool. 667

95*a* Price & Browne, Adelaide.—Wool. 667

96 Wurm, Frederick, Adelaide.—Silk and silk cocoons. 668

Agricultural Engineering and Administration.

97 Dalwood, W. F., Adelaide.—Guano from Browse Island, off west coast of Australia. 681

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

CAPE OF GOOD HOPE.

(South of North Aisle, Columns 15 to 17.)

COLLECTIVE EXHIBIT.

Minerals, Manufactures, Education and Science.

Minerals, Ores, Stone, Mining Products.

1 Cape Copper Mining Co. (limited), Cape Town.—Copper ores from Ookiep, Spectakel, Narrap, Karolusburg, and Kilderman mines, Little Namaqualand. 100

2 Bright, H. C. R., Mowbray, near Cape Town.—Copper ores and collection of minerals. 100

2*a* Muskett, E. B.—Galena from Banghock mine, Hope Town division. 100

3 Dickson, W. W., Cape Town.—Black oxide of manganese, from Hercules mine. 100

4 Stonestreet, Samuel, Kemberly Diamond Fields.—Diamonds and associated rocks. 100

5 Vice, G., Stormbergen.
a Saltpetre from the Stormbergen. 100
b Coal from the Stormbergen. 101

6 Wilson, A., Gas Works, Cape Town.—South African coals, cokes, and ashes. 101

Metallurgical Products.

7 Cape Copper Mining Co. (limited), Cape Town.—Copper. 111

Chemical Manufactures.

8 Smithers, J. & G., Cape Town.—Soaps. 201

Furniture and Objects of General Use in Construction and in Dwellings.

9 Moulton, R., Swellendam.—Workbox constructed of South African woods. 217

10 Lesar, W., Cape Town.—Table constructed of various colonial timbers. 217

Yarns and Woven Goods of Vegetable or Mineral Materials.

10*a* Cawood, Hon. S., Grahamstown.—Cotton table cloth. 230

Clothing, Jewelry, and Ornaments, Traveling Equipments.

11 Perry, Mrs., Cape Town.—Melon seed necklaces, bracelets, etc. 253

12 Gladwin, J. P., Kafirland.—Hair of Pondomise, surmounted by ring of Euphorbia jap; ivory earrings of Pondomise baboon skin; dress of witch doctor. 253

13 Local Committee, Cape of Good Hope.
a Native articles of dress—necklaces, armlets, earrings etc. 253
b Native aprons, head-dress, etc. 254

14 Ayliff, Mrs., Grahamstown.—Skeletonized flowers. 254

Weapons, etc.

15 Local Committee of Cape of Good Hope.—Knobe kierie of rhinoceros horn. 268

16 Vigors, P., Cape Town.—Native weapons, Kafir assegais, Bushman axe. 268

Medicine, Surgery, Prothesis.

17 Auret, W. H., Paarl.—Vegetable drugs and medicines. 272

18 Barkly, Sir H., Governor of Cape Colony.—Bitter barks used by Kafir doctors in fever cases. 272

Fabrics of Vegetable, Animal, or Mineral Materials.

19 Local Committee of Cape of Good Hope.—Kafir beer and milk pots, Kafir and Basuto baskets. 289

Educational Systems, Methods, and Libraries

20 Solomon, C., Cape Town.—Map of South Africa. 300

23 Solomon, Saul, & Co., Cape Town.—Specimens of bookbinding. 306

24 Local Committee of Cape of Good Hope.—Catalogue of South African Public and Sir G. Grey's libraries; University calendar; reports of South African Museum, Public Library, and Botanic Gardens; Dr. Bleek's Bushman Researches 306

25 Juta, J. C., & Co., Cape Town.—Books. 306

26 Mabille, A., Morija, Basutoland.—Books printed, bound, and published at Morija Mission Station, Basutoland. 306

27 Stewart, G., Lovedale, Kafirland.—Books printed, bound, and published at the Lovedale Kafir Mission Institution. 306

Engineering, Architecture, Maps, etc.

28 Local Committee of Cape of Good Hope.—Models of harbor works and dry docks at Cape Town. 330

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

29 Dunn, E. I., Cape Town.—Geological sketch map of Cape Colony. 335

29*a* Coates, H. C., Commissioner, Philadelphia, Pa.—Photograph of city of Cape Town. 335

29*b* Ayliff, Reuben, Grahamstown.—Photographs of Cape Town, harbor works, etc. 335

Paintings.

30 Hermann, W., Cape Town.—Oil paintings. 410
a View in Knysna Forest, Cape Colony.
b View of Three Anchor Bay, near Cape Town.

31 Coppen, F., Cape Town.—Water color sketches. 411
a Sketch of Hangklip, a spur of the Stormbergen, Queenstown division.
b Sketch of the Mac Mac Falls, Lydenburg gold fields, South African Republic.

32 Hays, Miss Anna, Cape Town.—Water color sketch of the native population of Cape Town. 411

33 Hermann, W., Cape Town.—Six water color sketches of colonial scenery. 411

34 Thwaits, Miss F. C., Cape Town.—Six water color drawings of indigenous Cape flowers. 411

Engraving and Lithography.

35*a* Bruton, C. I., Cape Town.—Photographs. 430
a Views in Cape Town.
b View of Kloof Lodge, near Cape Town.
c Views of scenery around Cape Town.

35*b* Barnard, S. B., Cape Town.—Photographs of Cape Town, natives, etc., in a book. 430

35*c* Fenneysey, C. D., George.—Photographs of colonial scenery. 430

Arboriculture and Forest Products.

36 Carson, E. J., Ookiep, Namaqualand.—Ebony. 601

37 Holland, B. H., Alexandria, Cape Colony.—Specimens of timber from the Alexandria crown forests, with articles made from various woods. 601

38 Mossop & Garland, Cape Town.—Barks in the rough and ground. 602

39 Smithers, J. & G., Cape Town.—Vegetable wax. 603

40 Dale, Dr., Cape Town.—Vegetable wax. 603

Agricultural Products.

41 Barry, Arnold, & Co., Cape Town.—Wheat. 620

42 Myburgh, N., Meerlust, Eerste river.—Wheat. 620

43 Barry & Herdon, Mossel Bay.—Aloes. 623

44 Barry & Nephews, Cape Town.—Aloes. 623

45 Jongh, S. J. de, Cape Town.—Snuff. 623

46 Powrie, E., Mossel Bay.—Leaf tobacco and snuff. 623

Land Animals.

46*a* Coates H. C., Commissioner, Philadelphia, Pa.—King penguin. 635

47 Gibbon, J. M., Cape Town.—Cochineal, grown and dried in the Botanic Gardens, Cape Town. 638

Water Animals, Fish Culture and Apparatus.

48 Merriman, John, Cape Town.—Preserved crayfish from Table Bay. 643

49 Moodie, D., Swellendam.—Pearl oyster shells from the south coast of the colony. 645

Animal and Vegetable Products.

50 Dier & Diets, Port Elizabeth.—Skins. 652

50*a* Benningfield & Son, Natal.—Elephant tusks. 652

51 Mossop & Garland, Cape Town.—Leather. 652

52 Local Committee, Cape of Good Hope.—Robe of skins of the blackbacked jackal and avard wolf. 652

53 Dickson, W. W., Cape Town.—Skins of the lion and cheetah or hunting leopard. 652

53*a* Coates, H. C., Commissioner, Philadelphia, Pa.
a Pair of horns and head. 652
b Ostrich eggs. 653

54 Vigors, P., Cape Town.—Lion and leopard skins, head of a leopard, antelope and rhinoceros horns. 652

54*a* Clipp, G. W.—Pair of horns. 652

55 Local Committee of Cape of Good Hope.—Ostrich feathers and eggs. 653

56 Douglass, A., Grahamstown.—Ostrich incubator, with stuffed ostriches and eggs. 653

57 Powrie, E., Mossel Bay.—Beeswax. 654

58 Barry & Nephews, Cape Town.—Beeswax. 654

59 Toit, A. L. du, Rondebosch.—Grapes in brandy. 656

59*a* Volsteedt, P. J., Cape Town.—Preserved lemons, citrons, nartjes, bitter oranges, melons, and Cape gooseberries. 656

60 Merwe, J. H. van der, Robertson.—Grapes in brandy. 656

60*a* Merriman, John, Cape Town.—Preserved tomatoes and Cape gooseberries. 656

61 Falck, J. A. H., Montagu.—Peaches in brandy. 656

62 Clear, E., Cape Town.—Wheat flour. 657

63 Letterstedt & Co., Cape Town.—Wheat flour. 657

64 Barry, Arnold & Co., Cape Town.—Wheat flour. 657

65 Heydenrych, B. G. P., Cape Town—Starch from wheat flour. 658

74 Ryn, J. H. van, Cape Town.—Pontac, red, and white wines, brandy. 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Wines, Textiles, Flower Work.

75 Renen, S. van, & Co., High Constantia.—Red and white wines. 660

75*a* Cloete Brothers, Constantia.—Red and white wines. 660

76 Anderson & Murison, Cape Town.—Pontac, pale, and golden sherry wines. 660

76*a* Cloete, H., Bellevue, Constantia.—Red and white wines. 660

77 Green, E. K., Cape Town.—Red, white, and sherry wines. 660

78 Collison, H. C., Cape Town.—Sherry, Madeira, Pontac, and Constantia wines. 660

78*a* Cloete, J. P., Groot Constantia.—Red and white wines. 660

79 Joubert, W. A., Stellenbosch.—Dry white wine. 660

80 Paarl Wine and Brandy Co., Paarl.—Red and white wines. 660

81 Rosenberg, S., Cape Town.—Brandy. 660

82 Barry & Nephews, Cape Town.—Brandy. 660

83 Collison, H. C., Cape Town.—Cognac. 660

84 Hauf, Dr., Robertson.—Brandy. 660

85 Marais, H. H., Robertson.—Cape sherry wine and Congo brandy. 660

86 Villiers, A. J. J. de, Cape Town.—Sherry, port, and red wines. 660

87 Villiers, A. B. de, Paarl.—Red and white wines. 660

Textile Substances of Vegetable or Animal Origin.

88 Cawood, Hon. S., Grahamstown.—Cotton. 665

89 Grewar, John W., Uitenhage.—Wool. 667

90 Priest, W., Graff Reinet.—Wool. 667

91 Rubidge, C., Graff Reinet.—Wool. 667

92 Stewart, A. C., Port Elizabeth.—Wool. 667

93 Court, P. W., Port Elizabeth.—Wool. 667

94 Barry & Nephews, Cape Town.—Wool. 667

95 Barry, Arnold, & Co., Cape Town.—Wool. 667

96 Dier & Diets, Port Elizabeth.—Wool. 667

97 Stewart, A. C., & Co., Port Elizabeth.—Angora hair. 669

Ornamental Trees, Shrubs, and Flowers.

98 Villiers, Miss de, Fransche Hoek.—Articles made of everlasting flowers. 709

99 Smuts, Miss G., Cape Town.—Articles made of everlasting flowers. 909

JAMAICA.

(*North of Nave, Columns 15 to 17.*)

COLLECTIVE EXHIBIT.

Chemicals, Woven Goods, Clothing.

Chemical Manufactures.

1 Reynolds, John N.—Salt. 200

2 Frith & Murphy.—Salt. 200

3 Grant, Charles.
a Bisulphate of lime. 200
b Chewstick powder and odontine. 203

4 Thomson, Robert, Superintendent of Botanical Gardens, Kingston, for the government.—Essential oils. 203

5 Auvray, P. E.—Odontine. 203

Yarns and Woven Goods of Vegetable or Mineral Materials.

6 Thomson, Robert, Superintendent of Botanical Gardens, Kingston, for the government.—Palm and plantain leaf mats. 229

Clothing, Jewelry, and Ornaments, Traveling Equipments.

7 Thomson, Robert, Superintendent of Botanical Gardens, Kingston, for the government.
a Palm leaf hats. 251
b Baskets and fans from leaves; shell baskets; walking sticks; bamboo whip; tortoise shell combs, necklaces; napkin rings and egg cups; doilies and fans made of lace bark. 254

7*a* Nash, Mrs.
a Hats made of dagger plant, lace bark, and strainer fibre. 251
b Dagger plant and lace bark ornaments, comprising fans, flowers, baskets, etc.; earrings and brooch made of lobster shell. 254

8 Brooks, Mrs. G.—Doilies and fans made from lace bark, etc. 254

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Manufactures, Agricultural, Animal, Vegetable Products.

8*a* Reid, William.—Cocoanut Shell Ornaments; walking sticks, etc. 254

Paper, Blank Books, and Stationery.

9 Thomson, Robert, Superintendent of Botanical Gardens, Kingston, for the government.
a Rulers. 258
b Paper stock. 260

Medicine, Surgery, Prothesis.

10 Thomson, Robert, Superintendent of Botanical Gardens, Kingston, for the government.—Cinchona barks, jalap, senna, aloes, etc. 272

Hardware, Edge Tools, Cutlery, and Metallic Products

11 Thomson, Robert, Superintendent of Botanical Gardens, Kingston, for the government.—Razor strops made from stems of plants. 281

Fabrics of Vegetable or Mineral Materials.

12 Thomson, Robert, Superintendent of Botanical Gardens, Kingston, for the government.
a Brushes from the penitentiary. 286
b Ropes from sisal hemp; coir; wild cotton, cocoanut, etc. 287
c Bamboo baskets. 289

Carriages, Vehicles, and Accessories.

13 Brass, John, & Son.—Carriage harness and riding saddle. 296

Arboriculture and Forest Products.

14 Thomson, Robert, Superintendent of Botanical Gardens, Kingston, for the government.
a Cedar and juniper shingles; lancewood, etc., for carriage building; cashaw, etc., for railway sleepers; pimento leaves, juniper wood, etc., for making perfumery. 600
b Mahogany, cedar, bullet tree, braziletto, lignum vitæ, ebony, satinwood, rosewood, etc. 601
c Logwood, fustic, annatto, turmeric, etc.; divi-divi, mangrove, catechu, guanga, etc. 602
d Dried ferns. 604
15 Pantrepant Estate.—Lace bark. 600
15*a* Fisher.—Concrete for tanning. 602

Agricultural Products.

16 Thomson, Robert, Superintendent of Botanical Gardens, Kingston, for the government.
a Peas and beans. 621
b Ginger, pimento berries, nutmegs, vanilla, cayenne pepper, etc.; tobacco, tea, cocoa, and chocolate; coffees from the following parties, John McLean, Francis Chalmer, John Davidson, Mrs. Maclaverty, Mrs. Lascelles, Dr. Stephens, James Harrison, Ernest Elliott, and Geo. Henderson. 623
16*a* Thompson & Weitzmann.—Tobacco. 623
16*b* Espent, W. B.—Cigars. 623
17 Soutar & Co.—Tobacco and cigars. 623
17*a* Major, Dr.—Nutmegs. 623
18 Richards, W. S.—Coffee. 623

Animal and Vegetable Products.

18*a* Fisher.—Leather. 652
19 Grant, Charles.—Beeswax. 654
20 Brass, John, & Son.—Honey and beeswax 654
20*a* Fegan.—Bleached wax. 654
21 Auvray, P. E.—Bleached wax. 654
22 Thomson, Robert, Superintendent of Botanical Gardens, Kingston, for the government.
a Candied fruits and preserves; pickles, etc.; fruits preserved in alcohol; meal made from plantains, bananas, cassava, bread, and other fruits. 656
b Corn, rice, and flour. 657
c Starch, arrowroot, etc. 658
d Sugars from the following parties: W. S. Richards, Albion estate and Constant Spring estate; Louis Verley, Mona estate; Ernest Elliott, Bog estate; James Harvey, Hillside estate; Joseph Reid, Caymannas estate, and J. McPhail. 659
e Rums from the following parties: David Galloway, Vale Royal estate; William Vickers, Frome, and other estates; M. C. Morgan, Appleton estate; James Harrison, Hordley and other estates; Plato Elphick, Belvidere estate; W. S. Richards, Hopewell estate; Ernest Elliott, Bog and other estates; Louis Verley, Mona estate; C. W. Steer, Blenheim estate; F. Hall, Mexico estate; James Harvey, Hillside estate; Joseph Reid, Camanas estate; J. Wray & Nephew, George J. Peynado, Alberga & Mitchell. 660
f Cocoanut, castor, groundnut, and other oils. 662
22*a* Espent, W. B.—Rum. 660
23 Gadpaille, Charles.—Rum. 660
23*a* Wray, J., & Nephew.—Orange and ginger wine, pimento dram, lime-juice, etc. 660
24 Melville, James.—Rum and Falernian wine. 660
25 Desnoes, P., & Son.—Rum, ginger cordial, orange wine, pimento dram, etc. 660
25*a* Alberga & Mitchell.—Orange and ginger wine, pimento dram, chutney, etc. 660
26 Nunes, Robert.—Rum. 660
27 King, Alexander, & Co.—Rum and lime-juice. 660

Textile Substances of Vegetable or Animal Origin.

28 Thomson, Robert, Superintendent of Botanical Gardens, Kingston, for the government.
a Wild cotton. 665
b Sisal hemp, China grass, pineapple, coir, bamboo, mahoe trumpet tree, bastard, cedar, and other fibres, etc. 666

BAHAMAS.

(*South of North Avenue, Columns 15 to 17.*)

COLLECTIVE EXHIBIT.

Manufactures, Agricultural, Animal, Vegetable Products.

Chemical Manufactures.

1 Sargent, D., Inagua.—Specimens of salt and table salt. 200

2 Meadows, John G., Inagua.—Salt and table salt. 200

Furniture and Objects of General Use in Construction and in Dwellings.

3 Robertson, Mrs. S. E.—Epergne. 218

4 Dorsette, Thomas.—Dripstone for filtering water. 224

Clothing, Jewelry, and Ornaments, Traveling Equipments.

5 Minns, Albert C. J.—Necklaces, locket, pin and earrings, bracelets, solitaires and studs, vest button, spoon, and paper knife. 253

6 Dupuch, Joseph.—Card tray, bread platters, and walking canes. 254

7 Grant, Misses Julia and Mary.—Mimosa bean ornaments, card tray, watch cases, mats, and cross. 254

8 Armbrister, James A.—Walking canes. 254

9 Centennial Exhibition Committee, Nassau.—Mimosa bean card basket, bags, and bracelets, manufactured by Messrs. Jarrett, Nassau; tortoise back, cleaned and polished by J. R. Saunders, Nassau; palmetto fans and hats, manufactured by Mrs. John Taylor, Inagua. 254

10 Evans, Ellen, G. E.—Shell cross, basket, and bridal wreath. 254

11 Atwell, Misses.—Memorial wreath, cornucopia, brooches, and earrings, made of shells and fish scales. 254

12 Symonett, Mrs. Matthew.—Palm tree, and watch stand. 254

13 Wallace, Alexander C.—Walking canes. 254

14 Eldon, Mrs. James.—Case containing orange tree. 254

15 Garner, Mrs. Maria E.—Basket, fruit basket, bridal wreath, and sprays. 254

Fabrics of Vegetable, Animal, or Mineral Materials.

16 Carrol, Richard E., Long Island.—Rope made of aloe fibre. 287

17 Centennial Exhibition Committee, Nassau.—Palmetto rope. 287

18 Knowles, Joseph A., Long Island.—
a Rope and net made out of wild fig tree bark. 287
b Palmetto baskets and mat. 289

Arboriculture and Forest Products.

19 Knowles, Joseph A., Long Island.—Wild fig tree bark. 600

20 Sawyer, R. H. & Co.
a Stopper wood; ship's knees of sabicu wood; bark. 600
b Mahogany, sabicu, satin, bull, cedar, and cocoanut woods. 601
c Green ebony, braziletto wood, and logwood. 602
d Myrtleberry wax. 603

21 George, John S.
a Specimens of bark and palmetto leaves, yellow pine and cedar woods. 600
b Mahogany, sabicu, satin, stopper, orange, and lignum vitæ woods. 601
c Logwood, braziletto, and green ebony. 602
d Wax made from myrtleberry. 603

22 Saunders, Samuel P.—Vegetable sponge. 604

Agricultural Products.

23 Boyd, Adam.—Tobacco and coffee, cultivated in New Providence. 623

Water Animals, Fish Culture and Apparatus.

24 Sawyer, R. H. & Co.—Conch shells. 645

25 Treco, P. A.—Bahama shells, collected and arranged by J. R. Saunders. 645

26 Saunders, Samuel P.—Small shells. 645

27 George, John S.—Queen conch shells. 645

Animal and Vegetable Products.

28 Sawyer, R. H. & Co.—Sponges. 650

29 George, John S.
a Beeswax. 654
b Arrowroot and cassava starch. 658

30 Centennial Exhibition Committee, Nassau.—Assorted preserved fruits, assorted pickles; pimento manufactured of native fruits by Daphne Fife. 656

Textile Substances of Vegetable or Animal Origin.

31 Sawyer, R. H., & Co.—Specimens of cotton produced principally at Long Island. 665

32 Saunders, S. P.—Cotton. 665

33 Brice, D. A.—Cotton. 665

34 Centennial Exhibition Committee, Nassau.—Fibres of the pita and pineapple plants, plantain, banana, and aloe trees, and esparto grass; wool made from leaves of the forest pine, pita plant, banana tree, and plantain. 666

Agricultural Engineering and Administration.

35 Saunders, Samuel P.—Cave earth (fertilizer). 681

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

BERMUDAS.

(*North of Main Aisle, H 16.*)

COLLECTIVE EXHIBIT.

Manufactures, Education and Science, Art, Agriculture.

Furniture and Objects of General Use in Construction and in Dwellings.

1 Bermuda, Government of.—Inlaid tables. 217

Clothing, Jewelry, and Ornaments, Traveling Equipments.

2 Trimingham, J.
a Bermuda straw plait, bonnets, etc., palmetto plait, and articles made from the palmetto leaf. 251
b Wreath of shell work. 254

3 Middleton, T. D.—Articles in point lace, from Somerset Island. 252

4 Smith, Mrs. R. T.—Fine point lace. 252

5 Ness, Miss.—Point lace sleeveless basque. 252

6 Ness, Miss C.—Point lace sofa pillow. 252

7 Lines, Mrs.—Point lace. 252

9 Bermuda, Government of.—Walking canes. 254

Medicine, Surgery, Prothesis.

10 Hugh, J. B.—Medicinal herbs and drugs. 272

Educational Systems, Methods, and Libraries.

11 Education, Board of.—School-map of the Bermudas. 300

12 Thorpe, Mrs. W.—"Afternoon in Bermuda." 306

13 Wilkinson, Major H. J.—"The Sand Hills." 306

14 Anon.—Bermuda flowers from nature. 306

Engineering, Architecture, Maps, etc.

15 Bermuda, Government of.—Large general map of the Bermudas, details by Royal Engineers and Major Crawford, R.A.; diagram showing the monthly mean temperature of Bermuda compared with other places of winter resort, drawn by Lieut. Colonel Bland, R.E.; fac-simile of the earliest published map of Bermuda, from Norwood's survey of 1616. 335

Physical, Social, and Moral Condition of Man.

18 Bermuda, Government of.—Examples of the ancient records of the colony of Bermuda, from 1616; title deeds, or original grants of land of the Bermuda Company, 1628-9.

Photography.

19 Somerset, Col. Fitzroy, R.E.—Photographs of Bermuda scenery, by the Royal Engineers. 430

20 Hugh, J. B.—Photographs of Bermuda scenery. 430

Aerial, Pneumatic, and Water Transportation.

21 Hinson, Dr.—Model of a Bermuda yacht, cutter-rigged. 594

22 Admiralty, Lords of the.—Model of her Majesty's floating dock at Bermuda; sectional drawing of same. 596

Arboriculture and Forest Products.

24 Several Contributors.—Sections and specimens of woods. 600

25 Astwood, Mrs.—Bird's-eye cedar, and other ornamental woods. 601

Pomology.

26 Committee, The.—Bananas and other fruits. 611

Marine Animals, Fish Culture and Apparatus.

27 Bermuda, Government of.—Conch shells used by cameo cutters; an extinct land shell of relatively large size; Sp. of hyalline; corals, nullipores, corallines, sea fans, and sea rods. 645

Animal and Vegetable Products.

28 Bermuda, Government of.—Sponges. 650

29 Hugh, J. B.—Dried and preserved fruits. 656

30 Tucher, Tho. Fowle.—Arrowroot. 658

31 Bertram, J. T.—Arrowroot and Tous les Mois. 658

Textile Substances of Vegetable or Animal Origin.

32 Peniston, W.—Fibre prepared from the leaves of fourcroye gigantea. 666

Machines, Implements, and Processes of Manufacture.

33 Bermuda, Government of.—Tools used in freeing the ground of the roots of sage and wild mimosa. 672

Ornamental Trees, Shrubs, and Flowers.

34 Bermuda, Government of.—Flowers ferns, and ornamental plants. 700

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

BRITISH GUIANA.

(*North of Main Aisle, F 16.*)

COLLECTIVE EXHIBIT.

Manufactures, Agricultural and Vegetable Products.

Clothing, Jewelry, and Ornaments; Traveling Equipments.

1 Great Diamond Plantation.—Rice straw ornaments. 254

Medicine, Surgery, Prothesis.

2 Fresson, William.—Drugs and other medicinal productions of the colony. 272

Arboriculture and Forest Products.

3 Mackey, T. H.—Greenheart wood, nearly 100 years old. 600

Agricultural Products.

4 Great Diamond Plantation.—Rice. 620

Animal and Vegetable Products.

5 Fresson, William.—Starches. 658

6 Bel Air Plantation.—Vacuum pan sugar. 659

7 Columbia Plantation.—Common process sugar. 659

8 Greenfield Plantation.—Vacuum pan sugar. 659

9 La Bonne Intention Plantation.—Vacuum pan sugar. 659

10 Met-en-Meerzorg Plantation.—Vacuum pan sugar. 659

11 Ogle Plantation.—Vacuum pan sugar. 659

12 Leonora Plantation.
a Vacuum pan and other sugars. 559
b Rum. 660

13 Uitvlugt Plantation.—Vacuum pan sugar. 659

14 Vreed-en-Hoop Plantation.—Common process sugar. 659

15 Versailles Plantation.—Vacuum pan sugar. 659

16 Great Diamond Plantation.
a Vacuum pan sugar. 659
b Rum. 660

17 Hope Plantation.
a Vacuum pan sugar. 659
b Rum. 660

18 Tuschen de Vrienden Plantation.
a Vacuum pan sugar; molasses. 659
b Rum. 660

19 Lusignan Plantation.—Rum. 660

Textile Substances of Vegetable or Animal Origin.

20 Godfrey, B. J.—Plantain, silk grass mahoe, sweet brier, and monkey apple fibres. 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

CEYLON.

(*North of North Avenue, Columns 15 to 17.*)

COLLECTIVE EXHIBIT.

Minerals, Manufactures, Education, Art, Agriculture.

Minerals, Ores, Stone, Mining Products.

1 Armitage Bros., Colombo.—Tin and plumbago. 100

Clothing, Jewelry and Ornaments, Traveling Equipments.

2 Armitage Bros., Colombo.
a Straw hats. 251
b Canes. 254

Fabrics of Vegetable, Animal, or Mineral Materials.

3 Armitage Bros., Colombo.
a India-rubber. 285
b Ropes. 287

Educational Systems, Methods, and Libraries.

4 Armitage Bros., Colombo.—Almanacs and other books. 306

Sculpture.

5 Armitage Bros., Colombo. — Elephant, carved in plumbago. 405

Photography.

6 Armitage Bros., Colombo.—Photographs. 430

Arboriculture and Forest Products.

7 Armitage Bros., Colombo.
a Woods. 600
b Dye woods. 601
c Gutta-percha and gums. 603

Agricultural Products.

8 Armitage Bros., Colombo.
a Coffee, spices, tobacco, and cigars. 623
b Seeds. 624

Water Animals, Fish Culture and Apparatus.

9 Armitage Bros., Colombo.—Mother-of-pearl and other shells. 645

Animal and Vegetable Products.

10 Armitage Bros., Colombo.
a Coco de mer 650
b Vegetable tallow. 652
c Tapioca. 658
d Sugars. 659

Textile Substances of Vegetable or Animal Origin.

11 Armitage Bros., Colombo.
a Cotton. 665
b Fibres. 666

STRAITS SETTLEMENT.

(*North of North Avenue, Columns 15 to 17.*)

Manufactures, Art, Agriculture.

Silk and Silk Fabrics.

1 Meyer, Behn, & Co., Singapore.
a Silk floss from Rungpore. 242
b Dyed silk from Rungpore. 243
c Silk thread from Bengal, Gyah, and Rungpore. 244
d Silk lace from Jubbulpore. 247

Photography.

2 Meyer, Behn, & Co., Singapore.—Photographic views. 430

Arboriculture and Forest Products.

3 Meyer, Behn, & Co., Singapore.
a Woods from Singapore, Madras, Bombay, and Nagpore. 600
b Dye-woods, galls, bark, etc. 602

Pomology.

4 Meyer, Behn, & Co., Singapore.—Nuts. 611

Agricultural Products.

5 Meyer, Behn, & Co., Singapore.
a Grass. 620
b Tea, coffee, spices, etc. 623
c Seeds. 624

Textile Substances of Vegetable or Animal Origin.

6 Meyer, Behn, & Co., Singapore.
a Cotton boll, seed, and flake. 665
b Hemp and fibres. 666
c Wool. 667
d Cocoon silk. 668

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

GOLD COAST.

(*North of Main Aisle, B 16.*)

Minerals, Manufactures, Machinery, Agriculture.

Minerals, Ores, Stone, Mining Products.

1 Colonial Government.
a Granite. 102
b White clay,—used in medicine, and to "chalk" divorced wives. 104

Chemical Manufactures.

2 Colonial Government. — Palm and other oils. 201

3 Melton, W.—Palm, cocoanut, groundnut, and other oils. 201

Ceramics—Pottery, Porcelain, Glass, etc.

4 Colonial Government.
a Goldsmith's furnace and crucibles. 207
b Earthenware. 210

Furniture and Objects of General Use in Construction and in Dwellings.

5 Colonial Government.—Native stools; desk, and envelope case. 217

Yarns and Woven Goods of Vegetable or Mineral Materials.

6 Crowther, Bishop.
a Niger mats. 229
b Cotton goods. 230

7 Colonial Government.
a Mats and baskets of grass. 229
b Cotton fabrics; Whydah and Agney cloth. 230

Woven and Felted Goods of Wool, etc.

8 Colonial Government.—Woolen fabrics. 238

Silk and Silk Fabrics.

9 Colonial Government.—Silk fabrics. 245

Clothing, Jewelry, and Ornaments; Traveling Equipments.

10 Colonial School, Cape Coast.—Wool knitting. 250

11 Crowther, Bishop.—Slippers. 251

12 Colonial Government.
a Sandals, hats, etc. 251
b Jewelry. 253
c Fans, pipes, walking-sticks, etc. 254
d Leather satchel and leather work. 255

Paper, Blank Books, Stationery.

13 Colonial Government.—Book for keeping gold accounts. 261

Weapons, etc.

14 Crowther, Bishop.—Dagger. 268

15 Colonial Government.—Swords, daggers, bows and arrows. 268

Fabrics of Vegetable, Animal, or Mineral Materials.

16 Colonial Government.
a Ropes. 287
b Basket ware. 289

Scientific and Philosophical Instruments and Methods.

17 Colonial Government.—Drums, guitars, flute, horn, etc.; strings for musical instruments. 227

Sculpture.

18 Colonial Government.—Carved wooden figures, ladles, etc.; carved image exhibited at native funerals. 405

Machines and Implements of Spinning, Weaving, Paper Making, etc.

19 Colonial Government.—Looms for manufacturing cotton yarns. 521

Arboriculture and Forest Products.

20 Colonial Government.
a Odoom wood. 600
b Ornamental woods. 601
c Gums, resin, etc. 603

Pomology.

21 Colonial Government.—Nuts. 611

Agricultural Products.

22 Colonial Government.
a Beans. 621
b Pepper. 623
c Seeds, gourds, etc. 624

23 Davison, Mrs.—Coffee (produced in eight months, from the seed). 623

Animal and Vegetable Products.

24 Colonial Government.
a Skins. 652
b Beeswax. 654
c Starch. 658

25 Nugent, Mr., Cape Coast.—Arrow-root. 658

26 Melton, W.—Colored starch. 658

Textile Substances of Vegetable or Animal Origin.

27 Colonial Government.—Fibres of bamboo, pineapple, etc. 666

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

MAURITIUS.

(North of North Avenue, Columns 15 to 17.)

COLLECTIVE EXHIBIT.

Manufactures, Education and Science, Agriculture.

Chemical Manufactures.

1 Lemière, A.—Salt. 200

Clothing, Jewelry, and Ornaments; Traveling Equipments.

2 Foucaud, Mme. Vve.—Slippers, cigar case, baskets, etc., made of Palmiste leaves. 254

Medicine, Surgery, Prothesis.

3 Boulton, L.—Medicinal plants. 272

Educational Systems, Methods, and Libraries.

4 Boulton, L.—Transactions of the Royal Society of Arts and Sciences of Mauritius, from 1870 to 1875. 305
Book on medicinal plants of Mauritius. 306

5 Kyshe, J.—Mauritius Almanac, 1874. 306

Photography.

6 Moco, S.—Photographs. 430

Arboriculture and Forest Products.

7 Horne, J.—Mauritius Botanical Gardens; native woods. 600

Agricultural Products.

8 Flore Mauricienne.—Vanilla. 623

9 Bouton, H. & E.—Mauritius coffee. 623

Animal and Vegetable Products.

10 Mauritius, Flore Mauricienne.—Preserved fruit. 656

11 Marie, François.—Arrowroot. 658

12 Wiehe, J.—Sugars. 659

Textile Substances of Vegetable or Animal Origin.

13 Brugada, L. de, & Boucherville, E. de.—Ramie. 666

14 Horne, J., Mauritius Botanical Garden.—Fibres, etc. 666

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

QUEENSLAND.

(*North of North Avenue, Columns 10 to 15.*)

COLLECTIVE EXHIBIT.

Manufactures, Education and Science, Art, Agriculture.

Chemical Manufactures.

1 Berkley & Taylor, Brisbane.—Dugong oil. 201

2 Ching, John.—Dugong oil. 201

3 Daintree, Richard.—Essences from Queensland vegetables. 203

Ceramics—Pottery, Porcelain, Glass, etc.

4 Mount Marley Co.—Fire brick. 207

Silk and Silk Fabrics.

5 Chubb, C. F., Ipswich.
a Reeled silk. 242
b Manufactured silk. 245

Medicine, Surgery, Prothesis.

6 Clarke, David.—Eucalyptus medicinal preparations. 272

Hardware, Edge-tools, Cutlery, and Metallic Products.

7 Hipwood & Sutton.—Bells made of Queensland metal. 283

Carriages, Vehicles, and Accessories.

8 Queensland, Government of.—Saddlery made by prison labor. 296

Educational Systems, Methods, and Libraries.

9 Bailey, F. M.—"Ferns of Queensland." 306

10 Clarke, David.—Catalogue of plants and seeds. 306

11 Groom, W. H.—"Account of Toowoomba and Vicinity." 306

12 Hartmann, C. H.—"Fruits, Flowers, and Timbers of Queensland." 306

13 Hockings, A. T.—Catalogue of seeds and plants. 306

14 Hockings, A. J., Brisbane.—"Queensland Garden Manual;" "Horticulture in Queensland." 306

15 Diggles, Silvester.—"Ornithology of Australia." 306

16 Government Printing Establishment.—Bound books, pamphlets, and printed matter. 306

17 Lukin & Gresley, Brisbane.—Copies of the "Queenslander." 306

18 Mackay, Angus.—Works entitled "The Sugar-cane in Australia," "Semi-tropical Agriculturist and Colonist's Guide." 306

19 Proprietors of volumes of Queensland journals.—Journals with summary, prepared for the Centennial Exhibition. 306

20 Robertson.—Maryborough almanac. 306

21 Sloter, Geo., & Co.—Sloter's almanac. 306

22 Thorne & Greenwell, Brisbane.—Queensland almanac and directory. 306

23 Willmett, Townsville.—Almanacs of Northern Queensland. 306

Engineering, Architecture, Maps, etc

24 Brisbane Tin Company.—Model showing strata of tin country. 335

25 Government Lithographic Establishment.—Maps, plans, charts, etc. 335

Photography.

26 Commissioners for Queensland.—Views of Ipswich, Rockhampton, Marlborough, Townsville, and Warwick. 430

27 Daintree, Richard.—Colored photographs. 430

28 Mackay, Angus.—Colonial views. 430

29 Wright, J. P.—Photographic views of Brisbane. 430

Machines, Tools, and Apparatus of Mining, Metallurgy, Chemistry, and the Extractive Arts.

30 Repetti, Joseph.—Model of quartz-crushing machine. 505

Arboriculture and Forest Products.

32 Daintree, Richard.
a Collection of polished timbers. 600
b Gums from Queensland vegetables. 603

33 Hill, Walter, Botanical Curator, Brisbane.
a Collection of timbers in the rough. 600
b Queensland nuts. 605
c Bark for tanning. 602

34 Mackay, Angus.—Common timbers. 600

35 O'Shausey, P. A., Rockhampton.—Timbers of northern Queensland. 600

36 Pettigrew, William.—Pick and axe handles of Queensland woods. 600

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Agricultural, Animal, and Vegetable Products.

37 Carey, J. W.—Work-box of various finished woods. 601

Agricultural Products.

40 Downs, George, Gowrie.—Barley. 620

41 Enderitch, H., Toowoomba.—Wheat. 620

42 Free, A., Warwick.—Wheat. 620

43 Free, George, Warwick.—Wheat. 620

44 Mackay, Angus.—Queensland maize. 620

45 Walker, R. F., Toowoomba.—Wheat, barley, and oats. 620

46 Grimes, S. & G., Brisbane.—Arrowroot. 622

47 Marks.—Arrowroot. 622

48 Tahey, F., Nerang.—Arrowroot. 622

49 Alexander, W. R., Redbank.
a Coffee and tea. 623
b Castor oil seeds. 624

50 Boreham, J. H.—Chutney and spices. 623

51 Chubb, F. E., Ipswich.—Coffee beans. 623

52 Hill, Walter, Botanical Gardens.—Leaf tobacco. 623

53 Hocker, J. H., Brisbane.—Cigars, cigarettes, leaf and manufactured tobacco. 623

54 McFarlane.—Chili peppers. 623

55 Mahony, Albert River.—Leaf tobacco. 623

Land Animals.

56 Richland, G., Cardwell.—Butterflies of northern Queensland. 638

Water Animals, Fish Culture and Apparatus.

57 Ching, John, Wide Bay.—Dugong calf, preserved in spirits. 640

Animal and Vegetable Products.

58 Stephens, T. B., Ekibin Tannery.—Leather and skins. 652

59 Ching, John, Wide Bay.—Dugong skull, tusks, etc. 652

60 Hayes, W. H., Candied pineapple, rockmelon, citron, ginger, lemon and orange peel. 656

61 Neden Bros., Toowoomba.—Flour. 657

62 Keates, F., Allora Mills.—Wheat, flour, and meal. 657

63 Black, Messrs., Moyea.—Sugar. 659

64 Brown, A. H., Antigua, Mary District.—Sugar. 659

65 Couldrey, W. H., Ageston.
a Sugar. 659
b Rum. 660

66 Davey & Gooding, Beenleigh.—Sugar. 656

67 Davidson, J. E., Mackay.
a Sugar. 659
b Rum. 660

68 Fryar and Strachan, Loganholme.
a Sugar. 659

69 Gibson & Sons, Clydesdale.—Sugar. 659

70 Superintendent of Penal Plantations.—Sugar. 659

71 Grimes, S. & G., Oxley.—Sugar. 659

72 Johnston, James, Helensfield, Doughboy.—Sugar. 659

73 Mackenzie, Gairloch.—Sugar. 659

74 Muir, Robert, Nerang.—Sugar. 659

75 Tooth & Cran, Zengarrè.—Sugar. 656

76 Neame & Co., Herbert river.—Sugar. 659

79 Irwin Bros., Warrilla, Ipswich.—Wine. 660

80 Kirchner, Asmanhausen.—Wines. 660

81 Mauch, David, Warwick.—Wine. 660

82 Raff, George, Morayfield.—Rum. 660

83 Ramsey Bros., Iindah.—White spirits of wine. 660

84 Brocklemann, Brisbane.—Arrowroot biscuit. 661

85 Daintree, Richard.—Vegetable oils. 662

Textile Substances of Vegetable or Animal Origin.

86 Mackay, Angus.—Queensland cotton. 665

87 Hill, Walter.—Collection of fibres. 666

88 McPherson, Alexander, Fortitude Valley.—Collection of Queensland fibres. 668

89 Clarke, George E., Talgai.—Fleece wool. 667

90 Davenport, G. H.—Merino wool. 667

91 Fenwick & Scott.—Australian wool. 667

92 Fisher, C. B., Headington Hill.—Merino wool. 667

93 Gore & Co., Yandilla.—Ewe fleece wool. 667

94 Green, C. H., Goomburra.—Fleece wool. 667

95 Gunn, Donald, Pikedale.—Wool. 667

96 Marshall & Slade, Glengallen.—Fleece wool. 667

97 North British Australian Co.—Fleece wool. 667

98 Parr, B. le, Chiverton.—Australian merino fleece wool. 667

99 Parr, B. C.—Fleece wool. 667

100 Shanahan & Jennings, Westbrook.—Merino wool. 667

101 Government Penal Establishment.—Silk worm cocoons. 668

102 Hine, Mrs., Ipswich.—Silk cocoons. 668

Ornamental Trees, Shrubs, and Flowers.

103 Bailey, F. M.—Flora of Australia and Botany of Queensland. 709

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

ARCHIPELAGO OF SEYCHELLES.

(*North of North Avenue, Columns 15 to 17.*)

COLLECTIVE EXHIBIT.

Manufactures, Agricultural, Animal, Vegetable Products.

Furniture and Objects of General Use in Construction and in Dwellings.

1 Bouquet, Miss.—Teacups and saucers. 218

Clothing, Jewelry, and Ornaments; Traveling Equipments.

2 Bouquet, Miss.
a Straw hats and slippers. 251
b Straw baskets, watch-pockets, and fans. 254

3 Cayol, Mrs. Tony.—Bouquets of shell flowers. 254

4 Bury, J. Ames.—Walking-canes. 254

Arboriculture and Forest Products.

6 Seychelles, Chief Commissioner of.—Samples of woods and planks. 600

7 Briard, Mr., Praslin Island.
a Black bark dye and samples of dyed stuffs. 602
b Nuts. 605

Agricultural Products.

8 Houareau, Sylvain.—Tobacco. 623

9 Madine, Mr.—Cigars. 623

10 Lemarchand, Mr.—Cacao, cloves, coffee, and vanilla. 623

Water Animals, Fish Culture and Apparatus.

10*a* Beyron, F.—Turtle shell. 645

Animal and Vegetable Products.

11 Bouquet, Miss.—Coca de mer straw. 650

13 Cauvin's Distillery.—White rum. 660

14 Nageon, Mr., La Digue Island.—Cocoanut oil. 662

Textile Substances of Vegetable or Animal Origin.

15 Brooks & Dupuy.—Cotton from Denis Island. 665

16 Briard, Mr.—Cotton. 665

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

TASMANIA.

(*South of North Avenue, Columns 13 to 15.*)

COLLECTIVE EXHIBIT.

Manufactures, Education and Science, Art, Agriculture.

Chemical Manufactures.

1 Kermode, W. A., Mona Vale.—Salt. 200

2 Strachan, R., Cambridge.—Salt. 200

3 Colvin, Charles, Hobart Town.—Oil from mutton birds, from islands in Bass's Straits. 201

4 Coverdale, John, Port Arthur.—Red ochre, earth for paints. 202

5 Laughton, James, Hobart Town.—Earth for paints. 202

Clothing, Jewelry, and Ornaments; Traveling Equipments.

6 Bidencope, J., Hobart Town.—Silk and felt hats and caps, with material of manufacture. 251

7 Tasmanian Commissioners.—Opossum and cat skin rugs. 256

8 Hull, H. M., Hobart Town.—Portraits of aborigines. 257

Weapons, etc.

9 Moir, J., Queenborough, Hobart Town.—Shot. 265

Educational Systems, Methods, and Libraries.

10 Hull, H. M., Hobart Town.—"Hull's Hints to Emigrants," parliamentary journals. 306

11 Nowell, E. C.—Books. 306

12 Tasmanian Commissioners.—Newspapers and statistics. 306

13 Walch & Sons, Hobart Town.—Almanac and guide. 306

Scientific and Philosophical Methods and Systems.

14 Royal Society of Tasmania.—Meteorological tables. 320

Engineering, Architecture, Maps, etc.

15 Randall, A., Hobart Town.—Chart of waterworks. 330

16 Dibbs, T. F., Launceston.—Chart of Launceston. 335

17 Cemetery Commissioners, Hobart Town.—Chart of cemetery. 335

18 Moore, Hon. Wm., Hobart Town.—Geological map of Tasmania. 335

19 Walch & Sons, Hobart Town.—Charts of Hobart Town and Launceston. 335

19*a* Hull, H. M., Hobart Town.—Map of Tasmania. 335

Physical, Social, and Moral Condition of Man.

20 Walch & Sons, Hobart Town.—Tasmanian postage stamps. 345

Sculpture.

21 Carlsen, P. O., Port Arthur.—Carved ivory and wooden egg and cruet stand; carved ivory and myrtle Danish pipe. 405

Photography.

22 Bailey, H. H., Hobart Town.—Photographs. 430

23 Hobart Town, Corporation of.—Photographs of public buildings. 430

24 Launceston, Corporation of.—Photographs of public buildings. 430

25 Tondeur & Lempriere, Melbourne.—Photographs of the British and Tasmanian Charcoal Iron Company's (limited) Works in Tasmania. 430

Machines and Implements of Spinning, Weaving, and Paper Making.

26 Coverdale, J., Port Arthur.—Spinning jenny of Tasmanian myrtle. 521

Arboriculture and Forest Products.

27 Creswell, C. F., Hobart Town.—Forest tree seeds (340 varieties). 600

28 Gulliver Brothers, Hobart Town.—Tree seeds. 600

29 Hull, Hugh M., Hobart Town.—Polished Tasmanian woods. 600

30 Edwards, G. W., Hobart Town.—Grass-tree gum and resin, for varnish. 603

31 Mitchell, Mrs., Swansea.—Gum, from Oyster Bay pine. 603

32 Lipscombe, F., Sandy Bay.—Blue gum seeds. 605

Agricultural Products.

33 Dalgety, Moore, & Co., Launceston.—Wheat and oats. 620

34 Dean, W., New Norfolk.—Wheat. 620

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Agricultural, Animal, Vegetable Products.

35 Gibson, W., Hobart Town.—Wheat. 620
36 Harrap, A., Launceston.—Wheat. 620
37 Hogarth, D., Launceston.—Wheat. 620
38 Kemp, G., Upper Bagdad.—Wheat. 620
39 Archer, W. H. D., Longford.
a Wheat and English barley. 620
b Linseed. 624
40 Creswell, C. F., Hobart Town.
a Wheat, barley, oats, and rye. 620
b Peas and beans. 621
c Grass and other seeds. 624
41 Graves, J. W., Hobart Town.—Native bread. 621
42 Sharland, W. C., New Norfolk.—Hops. 623
43 Shoobridge, E., New Norfolk.—Hops. 623

Land Animals.

44 Archer, W. H. D., Longford. Cream-colored opossum, platypus. 637

Water Animals, Fish Culture and Apparatus.

45 Salmon Commissioners of Tasmania.—Brown trout. 641
46 Davies, R. H., Torquay.—Tasmanian shells. 645

Animal and Vegetable Products.

47 Coverdale, John, Port Arthur.—Seaweed, and jelly made therefrom. 650
48 Archer, W. H. D., Longford.—Native furs and skins. 652
49 Arnot, S., Bothwell.—Leather of kangaroo skins. 652
50 Gardner & McKenzie, Launceston.—Skins of kangaroo, tanned and dressed; native furs and skins. 652
51 Tasmanian Commissioners.
a Native furs and skins. 652
b Blue gum tree oil. 662
52 Holroyd, Kennedy, & Co., Hobart Town.—Jams and tart fruits. 656
53 Degraves, John, Hobart Town.—Malt. 657
54 Dossetor Brothers, Hobart Town.—Flour. 657
55 Gracie, William, Hobart Town.—Malt. 657

Textile Substances of Animal or Vegetable Origin.

56 Archer, W. H. D., Brickendon, Longford.—Merino wool. 667
57 Brock, J.—Merino wool. 667
58 Cameron, Hon. Donald, Burnside.—Merino wool. 667
59 Gibson, James, Belle Vue, Cleveland.—Merino wool; portrait of stud sheep. 667
60 Gibson, W. H., Fairfield, Snake Banks.—Merino wool. 667
61 Gibson, W., & Son, Scone, Perth.—Merino wool; portraits of stud sheep. 667
62 Headlam, Charles, Egleston, Macquarie river.—Merino wool. 667
63 Keach, G.W., Chiswick, Ross.—Merino wool. 667
64 Lindley, G. W., Runnymede, Richmond.—Leicester wool. 667
65 McLanachan, Hon. James, Ballochmyle.—Merino wool. 667
66 Page, Samuel, Belle Vue, New Town.—Merino wool. 667
67 Parramore, Thomas, Beaufront, Ross.—Merino wool. 667
68 Ralston, John, Logan, Evandale.—Merino wool. 667
69 Searle, C.—Leicester wool. 667
70 Sharland, W. S., Woodbridge, New Norfolk.—Merino wool. 667
71 Shaw, Fred., Redbanks, Swansea.—Leicester wool. 667
72 Simmons, W. C.—Leicester wool. 667
73 Taylor, David, St. Johnstone's, Macquarie river.—Merino wool. 667
74 Taylor, G. Milford, Campbell Town.—Merino wool. 667
75 Taylor, John, Winton, Campbell Town.—Merino wool. 667
76 Wilson, George, Oatlands.—Merino wool. 667

Agricultural Engineering and Administration.

77 Anglo-Australian Guano Company, Hobart Town.—Guano from Bird's Island. 681

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

TRINIDAD.

(*South of North Avenue, Columns 15 to 17.*)

COLLECTIVE EXHIBIT.

Minerals, Manufactures, Animal and Vegetable Products.

Minerals, Ores, Stone, Mining Products.

1 André, L. A. F.—Surface coals from the eastern coast. 101

2 Finlayson, Thomas A.—Asphalt, boiled and crude. 101

Furniture and Objects of General Use in Construction and in Dwellings.

3 Devenish, Syl., Surveyor General.—Gourd calabash. 224

Clothing, Jewelry, and Ornaments; Traveling Equipments.

4 Trinidad, Government of.—Mats, fans, strainers, etc. 254

5 McAdam, Miss Venus.—Baskets made of gourds. 254

6 Devenish, Syl., Surveyor General.—Walking-sticks. 254

Hardware, Edge Tools, Cutlery, and Metallic Products.

7 Devenish, Syl., Surveyor General.—Razor strops. 281

Fabrics of Vegetable, Animal, or Mineral Materials.

8 Trinidad, Government of.—Baskets. 289

Arboriculture and Forest Products.

9 Prestoe, Hy., Government Botanist.—Collection of native woods. 600

10 Devenish, Syl., Surveyor General.—Samples of woods. 600

11 Trinidad, Government of.—Guttapercha, liquid and solid. 603

Pomology.

12 Cumming, A., & Co., Port of Spain.—Cocoanuts. 611

Agricultural Products.

13 Prestoe, Hy., Government Botanist.—Nutmegs, cloves, mace, etc. 623

14 Needham, Sir Jos., San Antonio.—Cocoa. 623

15 Penco, Jos., La Merced.—Cocoa. 623

16 Cleaver, C., Verdant Vale.—Cocoa. 623

17 D'Abadie, St. L., St. Pedro.—Cocoa. 623

18 Flamant, Mrs. C.—Snuff of native tobacco. 623

Animal and Vegetable Products.

19 Prestoe, Hy., Government Botanist.—Preserved fruits. 656

20 Trinidad, Government of.—Cassarip. 656

21 Flament, Mrs. Ch.
a Farina and plantain flour. 657
b Cassada starch. 658

22 Jenny, Miss.—Farina. 657

23 Colonial Company's Agency.—Sugar. 659

24 Seigert, Dr., Port of Spain.—Angostura bitters. 660

25 Somes & Co.—Cocoanut oil. 662

26 Devenish, Syl., Surveyor General.—Carap oil. 662

Textile Substances of Animal or Mineral Origin.

27 Somes & Co., Nariva Cocal.—Cocoanut fibre. 666

28 Devenish, Syl., Surveyor General.—Fibre from Agave vivipara. 666

29 Prestoe, Hy., Government Botanist.—Fibres. 666

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

INDIA.

(*North of Nave, Columns 22 to 25.*)

COLLECTIVE EXHIBIT.

Chemicals, Ceramics, Woven Goods, Clothing.

Chemical Manufactures.

COLLECTIONS FROM THE INDIAN MUSEUM, BY J. FORBES WATSON, M.A., LL.D., DIRECTOR OF THE INDIAN MUSEUM, ETC.

a Rock salt from Salt range; salt from Poorthemauk, Nellore, Toomlook, Balasore, Cuttack, and Jeypore; black salt from Calcutta; saltpetre from Cutch, Sarun, Bengal, Ahmednugger, Lahore, Central India, Ellore, Nellore, Cawnpore, Salem, Madras, and Calcutta; alum from Madras, Lahore, and Bengal; carbonate of soda from Lind and Calcutta; sulphate of iron from Salt range; borax from Thibet; sal ammoniac from Kurnal and Calcutta; sulphate of copper from Calcutta. 200

b Gamboge from Bombay; indigo from South Arcot, Moorshedabad, Madras, and Shikarpore; cutch from Calcutta, Madras, and Burmah; gambier from Bombay and Malacca; lac dye from Jubbulpore and Malwa. 202

Ceramics—Pottery, Porcelain, Glass, etc.

c Ornamental tiles from Hyderabad. 208

d Water vessels from Patna, Ghallawar, Madras, South Canara, and Allahabad; vase from Sindh; hookah bowl and bottom from Patna; cup, dish, and cover from Hyderabad; milk pan from Madras; goblet from Vizagapatam. 210

Furniture and Objects of General Use in Construction and in Dwellings.

e Copper and brass lamps, boxes, plates, dishes, basins, cups, etc., from Calcutta, Benares, Bengal, Bombay, Patna, Indore, Madras, Mirzapore, Travancore, Nepal, Cachar, and Poonah; betel plates inlaid with silver, from Hyderabad; copper amulet case from Thibet; brass spoon for oil from Madras. 224

Yarns and Woven Goods of Vegetable or Mineral Materials.

f Phulgat mat from Travancore. 229

g Muslin and cotton from Dacca and Madras. 230

h Striped and checked cotton from Madras. 231

Woven and Felted Goods of Wool, etc.

i Cashmere and woolen carpets from Madras, Scind, and Ferahan. 239

j Cashmere long and square shawls, net shawls, chuddahs, scarfs, burnouse, cravats, gold embroidered cloaks and table covers. 240

Silk and Silk Fabrics.

k Raw silk from Surdah, Berhampore, Bogra, Seetapore, and Bengal; Tusseh silk thread from Bengal, Gyah, and Bhagulpore; cocoons from Bengal and Cuttack; Eria silk thread from Rungpore and Assam. 242

l Floss silk from Umritsur, Punjab, Vellore, Tatta, and Cashmere. 243

m Striped and plain piece silk from Beerchoom, Hyderabad, Ahmedabad, Burmah, and Benares. 246

Clothing, Jewelry, and Ornaments; Traveling Equipments.

n Women's garments from Madras, Pegu, and Dharwar; men's garments from Goodaspore, Moultan, and Sindh; pinna silk skirt from Madras. 250

o Embroidered shoes and turbans from Hyderabad, Gwalior, Sindh, Kotah, and Madura. 251

p Nets, muslin, cloth, and silk embroidered in gold and colors from Sindh, Madras, Benares, Hyderabad, Delhi, Bhurtpore, and Bombay; gold, silver, white, and colored laces from Bombay, Nagpore, and Madras; handkerchief from Poona convent; doyleys from Madras. 252

q Collection of jewelry from Bombay. 253

r Dolls from Benares; fans from Madras, Delhi, Tipperah, South India, Poona, and Monghyr; chourie split ivory from Sylhet; chowrie, split sandal wood from Madras. 254

s Leather box, embroidered with quill work, from Simla. 255

Weapons, etc.

t Spears, bows and arrows from Lahore, Delhi, and South India; velvet quivers and arm covers from Lahore; battle axes from Delhi and Nagpore; coat of mail from Punjab; daggers, swords, breastplates, etc., from Lahore, Burmah, Deccan, Coorg, and Bengal. 268

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Manufactures, Education, Art, Agriculture.

Medicine, Surgery, Prothesis.

x Barks, liquorice, opium, nux vomica, aconite, patchouli, tamarinds, anise, cardamom and croton seeds, cubebs, blistering beetles, juniper berries, aloes, and other medicinal products from Madras, Travancore, Bombay, Penang, Bengal, Mysore, North India, Malacca, and Calcutta. 272

Hardware, Edge Tools, Cutlery, and Metallic Products.

v Copper bell from Burmah. 283
w Lock and key from Indore. 284

Fabrics of Vegetable, Animal, or Mineral Materials

x Baskets and cigar case from Madras; cane stands from Singapore; grass window shades from Travancore; papier-maché articles from Cashmere, Kurnool, and Sindh; lacquered wood work from Burmah and Sindh; japanned cabinet from Bareilly. 289

Carriages, Vehicles, and Accessories.

y Model of state carriage from Poona. 292
z Models of passenger and luggage carts, and palanquin from Bombay. 293
aa Sikh saddle; velvet and gold trappings from Punjab. 296

Educational Systems, Methods, and Libraries.

ab Books, "The People of India" and "The Textile Manufactures of India," by J. Forbes Watson, LL.D.; "Tree and Serpent Worship," by J. Fergusson, F.R.S.; "Ancient Buildings in Kashmir" and "Ancient Buildings near Muttra and Agra," by Lieut. H. H. Cole; "Primitive Tribes of the Nilagiris," by J. W. Breeks; Report on the Archæology of West India, by J. W. Burgess. 306
ac Stringed and wind instruments from Madras; kettle drum from Bengal; horn from Moorshedabad. 327

Engineering, Architecture, Maps, etc.

ad Maps illustrative of Indian surveys; relief map of India. 335

Sculpture.

ae Sculptured stone bull from Nandi. 400
af Sculptures from the Amravati Tope, viz.: base of large slab; panel figure of temple with Buddha seated; portions of frieze; figure standing; slab, Buddha's feet. 401
ag Carved model of Burman chuttree, and sandal wood model of Hindoo temple from Booj; carved vase, sandal wood fan, and glove box from Bombay; carved stone idol, "Vishnu riding on Garuda" from Madras; carved wooden idols from Nepal; carved ivory box from Burmah; carved elephant with howdah from Berhampore; carved horn tazza from Gokak; carved pith figures from Trichinopoly, and carved horn drinking cup from Rutnagherry. 405

Photography.

ah Photographic views of India; photographs of races and tribes of Hindoostan; photographs of Indian architecture. 430
ai Photo-lithographs illustrative of the textile fabrics of India. 432

Ceramic Decorations, Mosaics, etc.

aj Inlaid marble boxes from Agra and Myhere. 450
ak Inlaid wooden glove and work box from Bombay. 452
al Card basket and box of porcupine quill work from Vizagapatam; casket and basket of Koftgari ware; miniature paintings on ivory, in carved sandal wood frames from Delhi; writing pads of ornamental painted leather from Kurnool; paintings on mica from Trichinopoly; samples of ornamental writing in colors. 454

Aerial, Pneumatic, and Water Transportation.

am Models of passenger, ferry, coasting, and freight boats from Calcutta. 594

Arboriculture and Forest Products.

an Ornamental and other woods 601
ao Dye woods, barks, roots, and galls from Madras, Sindh, Cuttack, Nagpore, Burmah, and Singapore. 602
ap Gums, resin, incense, gutta-percha, myrrh, etc., from Raepore, Gyah, Burmah, Madras, Pegu, Salem, Travancore, Malacca, Indore, and Bombay. 603

Agricultural Products.

aq Wheat from Sindh, Punjab, Faridpur, and Bengal; barley from Belgaum, and other places; oats from Patna and Monghyr; maize from Northwestern India; millet; raggee; buckwheat from the Himalayas; illustrations of food plants of India. 620
ar Peas, beans, lentils, and vetch. 621
as Tea from Assam, Bishnath, Cachar, Dehra-Doon, Punkabaree, Kangra, Kumoon, and other places; tea buds from Silcoorie; coffee from Aden, Bombay, Tinnevelly, Paradise estate, and Chittagong; coffee berries from South India Mysore, and Coorg; spices, pepper, ginger, mustard, curry powder, and turmeric from Bombay, Travancore, Indore, Dehra-Doon, Bengal, Nepal, Madras, and other places. 623
at Coriander, dill, and fennel seed from Berar, Oudh, Faridpur, and Dharwar; water lily stems from Sindh; oil seeds from Faridpur, Nagpore, Ahmednugger, Bengal, and Indore; poppy seed from Central Provinces and Bengal; groundnuts from Berar, Indore, and Khandeish. 624

Land Animals.

au Various kinds of silk worms of India from Cashmere, Bengal, and the Himalayas. 638

Water Animals, Fish Culture and Apparatus.

av Pearl oysters from Kurrachee. 645
aw Edible birds' nests from Ceylon; fish maws and sharks' fins from Bombay. 646

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Animal and Vegetable Products, Textiles, Machines.

Animal and Vegetable Products.

ax Glue from Cawnpore. 652
ay Beeswax from Travancore, Pegu, Rangoon, Singapore, and Chota Nagpore. 654
az Soojee flour from Madras; rice from Punjab, Sindh, and Bengal. 657
ba Arrowroot, tapioca, and sago. 658

Textile Substances of Vegetable or Animal Origin.

bb Cotton from various parts of India, in its different stages of growth and manufacture. 665
bc Flax from Punjab; rheea stems and fibre from Assam; brown hemp from Bombay; Jubbulpore hemp; pineapple fibre from Madras and Mangalore; aloe fibre from Madras; Manila hemp; mat grass from Bengal; illustrations of fibre-producing plants of India. 666
bd Sheep's wool from Bombay, Mysore, Ladakh, and Bokhara; goat's wool from Umritsur, Punjab, Turfan, and Yarkand; camel's wool from Bokhara and Punjab. 667

Machines, Implements, and Processes of Manufacture.

be Plow and yoke from Berar. 670
bf Native cotton gin from Bengal. 673

Agricultural Engineering and Administration.

bg Models of water and cotton cart from Bombay. 682

CANADA.

(*North of Nave, Columns 16 to 23.*)

Chemicals.

Chemical Manufactures.

1 Cowan, A., Brockville, Ont.—Salt, nitre cake; nitric, muriatic, and sulphuric acids; sodium nitrate. 200

12 Geological Survey of Canada, Q.
a Salt, salt cake, salt gypsum cake, residue for crystallizing pans, salt scales. 200
b Ochres. 202

14 Sharp, Jos. S., Apohaqui, N. B.—Salt. 200

17 Cooper, Robert, Toronto, Ont.—Washing crystals. 200

18 Lane, T. G., Hamilton, Ont.—Washing and bleaching crystals. 200

19 Saunders, Wm., London, Ont.
a Pharmaceutical preparations. 200
b Perfumery. 202

20 Lyman, Clare, & Co., Montreal, Q.
a Pharmaceutical preparations. One of the longest established drug firms in the Dominion. Specialty—pure drugs. Also, linseed oil crushers and paint grinders. 200
b Oil. 201
c Paints. 202

22 Lyman Bros. & Co., Toronto, Ont.
a Pharmaceutical and chemical preparations. 200
b Oil for paints. 201
c Paints in oil. 202

23 Wilson, John, St. John, N. B.—Soaps. 201

24 Savage, Alfred, & Son. Montreal, Q.—Oil. 201

25 Morse, Geo. D., & Co., Toronto, Ont.—Soap, candles, tallow, lard, and oils. 201

26 Walker, J., Hamilton, Ont.—Soaps. 201

28 Hood, A. W., & Son, Montreal, Q.—Soaps. 201

29 Albert Toilet Soap Co., Montreal, Q.—Soaps. 201

30 Spinelli, R., Montreal, Q.—Paraffine soaps. 201

31 Lyman, S. J., Montreal, Q.
a Phosphorus soap. 201
b Perfumery. 203

33 Waterman' Bros., London, Ont.—Hard and soft coke from petroleum, crude and refined petroleum, paraffine oil, benzine, axle oil, tar from petroleum, paraffine scales. 201

36 Leeds Paint Manufacturing Co., Mallorytown, Ont.—Ferruginous rock and paints. 202

39 Buchanan Mineral Co., Walsingham, Ont.—Paints and colors. 202

40 McKay, William, Ottawa, Ont.—Liquid drier for paint, printers' ink. 202

42 Ramsay, T., Montreal, Q.—Paints. 202

44 Ramsay, A., & Son, Montreal, Q.—Paints. 202

45 Montreal Plumbago Mining Co., Montreal, Q.—Stove polish, crucibles 202

46 Martin, Charles, Montreal, Q.—Stove polish, crucibles. 202

48 Hall, G. B., Quebec, Q.—Ochres. 202

53 Copeland & McLaren, Montreal, Q.—Iron oxide. 202

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Ceramics, Furniture, Woven Goods.

55 Thompson, G. F., & Sons, St. John, N. B.—White lead. 202

57 Edgett, W., Pudsey's Point, N. S.—Iron ochre. 202

58 Miller, Hugh, & Co., Toronto, Ont.—Pomade. 203

62 Manuvilling, J. J., Hampton, N. B.—Matches. 204

Ceramics—Pottery, Porcelain, Glass, etc.

81 Pratt, Charles, London, Ont.—Pottery. 206

82 Ahren, J. H., Paris, Ont.—Pottery. 206

83 Bell, David, Little River, Q.—Drain tiles. 206

84 Mochan, Albert, St. John, Q.—Bricks. 206

86 Geological Survey, Montreal, Q.—Bricks. 206

87 Advisory Board, Quebec, Q.—Bricks. 206

91 Bell, W. & D., Quebec, Q.—Tobacco pipes. 206

93 Lee Brothers, St. John, N. B.—Bricks, drain tiles. 206

94 Smith & Kaye, Halifax, N. S.
a Bricks, drain tiles. 206
b Earthenware. 210

98 St. John Stone Chinaware Co., St. John, Q.—Stone chinaware. 210

99 Cape Rouge Pottery Co., Quebec, Q.—Crockery ware. 210

103 Booth, W., Toronto, Ont.—Sign painting on glass. 216

104 McAusland, J., Toronto, Ont.—Stained glass, figured work. 216

Furniture and Objects of General Use in Construction and in Dwellings.

105 Hay, R., & Co., Toronto, Ont.—Sideboard. 217

107 Riley & May, Toronto, Ont.—Billiard tables, etc. 217

110 Kremer, C., Preston, Ont.—Furniture. 217

111 Murphy, A. A., Montreal, Q.—Store stools. 217

112 Roy & Co., Montreal, Q.—Invalid mechanical chair. 217

113 Reinhardt, C., Montreal, Q.—Combination spring-bottom bedstead. 217

114 Reid, R., Montreal, Q.—Marble mantelpiece. 217

115 Stephen, A., & Son, Halifax, N. S.—Secretary. 217

117 Drum Cabinet Manufacturing Co., Quebec, Q.—Parlor and bedroom sets, sideboard. 217

118 Whiteside, H., & Co., Montreal, Q.—Beds and mattresses. 217

121 Chapleau, Godfroi, Montreal, Q.—Fireproof safes, burglar-proof door. 217

122 Bennett, Jas., St. John, N. B.—Newspaper files. 217

123 Hutching & Co., St. John, N. B.—Mattresses. 217

127 Huber, Allen, Berlin, Ont.—Mirrors. 219

129 Ewing & Co., Toronto, Ont.
a Mirrors. 219
b Mouldings. 220

130 Dixon, A. H., Toronto, Ont.—Show cards. 219

131 Shantz, J. Y., Berlin, Ont.—Mirror. 219

132 Spence, John C., Montreal, Q.—Stained glass window. 219

135 Wade, J. M., Montreal, Q.—Ornament on glass and wood. 219

136 Cockburn, D., Ottawa, Ont.—Carved frame. 220

140 Brown, J. T., St. John, N. B.—Frames, book-rack. 220

141 Copp Bros., Hamilton, Ont.
a Stoves. 222
b Sad irons. 225

142 Moore, D., & Co., Hamilton, Ont.—Stoves, tubular lanterns. 222

143 Elliot, J. W., Toronto, Ont.—Stoves. 222

144 White, H. A., Hamilton, Ont.—Stovepipe damper. 222

146 Wexelburg & Co., Toronto, Ont.—Sheet metal elbows. 222

150 Harris, J., & Co., St. John, N. B.
a Ship camboose and register grates. 222
b Iron mantels. 227

151 Trudeau, P., Ottawa, Ont.—Gas burner, globe, and gallery. 223

154 Williams, J. M., & Co., Hamilton, Ont.—Tin and stamped ware. Manufacturers of plain, stamped, re-tinned and japanned tinware, tubular lanterns, etc. etc. Price lists sent on application. 224

158 Penton, Thos., Sarnia, Ont.—Combined cooking and heating engine. 225

161 Elliott, T. C., Guelph, Ont.—Washing machine. 225

163 Lawlor & Co., Montreal, Q.—Washing machines. 225

164 Hall, G. B., Quebec, Q.
a Washing machines. 225
b Blinds, etc. 227

166 Cable, Bayard, & Co., Montreal, Q.—Clothes rack. 225

168 Foster, S. R., & Son, St. John, N. B.—Fireproof shutters. 227

171 Wood, T. M., & Co., Toronto, Ont.—Venetian blind. 227

174 Evans, Oscar C., Hamilton, Ont.—Blinds. 227

176 Fontaine, J., Montreal, Q.—Hothouse windows. 227

177 Wells & Co., Toronto, Ont.—Window fastener. 227

178 Fairbank, Hawes, & Co., St. John, N. B.—Doors, blinds, sash, turned work. 227

179 Wilson, Gilmour, & Co., St. John, N. B.—Marbleized mantels and grates. 227

Yarns and Woven Goods of Vegetable or Mineral Materials.

180 Dundas Cotton Mills Co., Hamilton, Ont.—Cotton fabrics. 230

181 Canada Cotton Manufacturing Co., Cornwall, Ont.—Domestics, tickings, bags, yarn, etc. 230

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Woven Goods, Clothing, Paper Work.

182 Smith & Wilby, Toronto, Ont.—Samples of cotton batts. 230

183 Woodworth, J. L., St. John, N. B.—Cotton yarns. 230

184 Parks, W., & Son, St. John, N. B.—White and colored cotton yarns. 230

185 Winger, H., Elmira, Ont.
a Canadian and Oxford gray cloth. 230
b Linen sheeting. 233

186 Stevens, A. J., & Co., Paris, Ont.—Floor oil cloth. 234

Woven and Felted Goods of Wool, etc.

191 Toronto Tweed Co., Toronto, Ont.
a Tweeds. 235
b Flannels. 236

192 Rosamond Woolen Co., Almonte, Ont.—Cassimeres. 235

195 Mills & Hutchison, Montreal, Q.—Tweeds. 235

196 Paton Manufacturing Co., Sherbrooke, Q.—Cloths and tweeds. 235

197 Woodworth, J. L., St. John, N. B.—Woolen yarns. These 4-ply woolen yarns, chiefly for knitting purposes, are made of pure native wool, with special regard to durability. 235

198 Oxford Woolen Mills, Oxford, N. S.—Woolen goods. 235

199 Fisher, T. S., Toronto, Ont.
a Tweeds, buckskins, doeskins. 235
b Yarns. 238

200 Advisory Board, Victoria, Br. Col.
a Yarn made from wool of Rocky mountain goat. 235
b Indian blankets from wool of Rocky mountain goat. 237

201 Lomas, Adam, & Son, Sherbrook, Q.—Flannels. 236

202 Willett, S. T., Chambly, Q.—Flannels. 236

203 St. John Woolen Mills, St. John, Q.—Flannels. 236

203*a* Smith & Wilby, Toronto, Ont.—Fancy flannels. 236

204 Cantlie, Ewan, & Co., Montreal, Q.—Plain and fancy flannels. 236

205 Winger, H., Elmira, Ont.
a Blankets. 237
b White stocking yarn. 238

207 Wardlaw, J., Galt, Ont.—Woolen yarns. 238

Clothing, Jewelry, and Ornaments; Traveling Equipments.

210 Taylor, R. F., & Son, Toronto, Ont.—Full dress suit, dress overcoat. 250

212 McCrae & Co., Guelph, Ont.—Knit goods and hosiery. 250

213 Ancaster Knitting Co., Hamilton, Ont.—Knitted and fancy goods. 250

214 Blacklock, W., & Co., Hastings, Ont.—Wool shirts and drawers. 250

215 Smith, H. H., Goderich, Ont.—Suits of Canadian goods. 250

216 Shorey & Co., Montreal, Q.—Ready made clothing. 250

217 Fisher, T. S., Toronto, Ont.—Shirts, pants, clouds, and scarfs. 250

218 Skelton, Tooke, & Co., Montreal, Q.—Shirts, collars, and cuffs. 250

219 Brown & Clagget, Montreal, Q.—Dresses. 250

220 Willis, E., & Co., St. John, N. B.—Paper collars and cuffs. 250

222 May, James S., St. John, N. B.—Ready-made clothing. 250

225 McKensie, Charlottetown, P. E. I.—Clothing. 250

228 Sussex Boot & Shoe Co., Sussex N. B.—Boots and shoes. 251

229 Sutherland, A., Kingston, Ont.—Boots and shoes. 251

231 King & Brown, Toronto, Ont.—Boots and shoes. 251

233 Moore, Th., Cooksville, Ont.—Wood models of boots and shoes. 251

235 Corestine, J., & Co., Montreal, Q.—Hats and caps. 251

237 Gentesse, C., Montreal, Q.—Improved head conformateur. 251

238 Slater & Perry, Montreal, Q.—Boots and shoes. 251

239 Cloutier, George, Pointe Levis, Q.—Shooting boots. 251

242 Ramsay, D., Cobourg, Ont.—Boots and shoes. 251

244 Dominion Suspender Co., St. Stephens, N. B.—Gents' and youths' suspenders. 251

260 Saunders, S., Guelph, Ont.—Carved walking-canes. 254

261 Shantz, J. Y., Berlin, Ont.—Vegetable ivory buttons. 254

263 Lavoie, M., Montreal, Q.—Hair work. 254

264 Leblanc, J. H., Montreal, Q.—Fancy feathers. 254

265 Clarke, U. E., & Co., Toronto, Ont.—Trunks, valises, and bags. 255

266 Taylor, Robert, Halifax, N. S.—Trunks. 255

267 Borbridge, S. & H., Ottawa, Ont.—Trunks. 255

268 Chisholm, W., New Glasgow, N. S.—Ladies' trunks. 255

269 Renfrew, G. R., & Co., Quebec, Q.—Furs, Indian work. 256

270 Reynolds & Volkel, Montreal, Q.—Complete set of furs. 256

271 Hudson Bay Co., Montreal, Q.—Furs. 256

272 Keizer, C., & Son, Halifax, N. S.—Furs. 256

272 Thibault, Lanthier & Co., Montreal, Q.—Furs. 256

Paper, Blank Books, and Stationery.

278 Kilgoren Bros., Toronto, Ont.—Paper bags. 260

283 Wilson, J. C., & Co., Montreal, Q.—Paper bags. 260

284 Canada Paper Co., Montreal, Q.—Wrapping and printing paper and envelopes. 260

288 Warwick, Wm., Toronto, Ont.—School blank books, letter press. 261

289 Hunter, Rose & Co., Toronto, Ont.—Books printed and bound. 261

290 Brown Bros., Toronto, Ont.—Account and pocket book binding. 261

291 Perrault, L., & Co., Montreal, Q.—Account books, printing. 261

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

293 Dawson Bros., Montreal, Q.—Blank books, binding. 261

295 MacKinlay, A. & W., Halifax, N. S.—Blank books. 261

297 Stanton, M., & Co., Toronto, Ont.—Room paper hangings. 264

Weapons, etc.

300 Meyer, F. W. Albert, Montreal, Q.—Small gun, light artillery. 266

301 Rawbone, J. L., Toronto, Ont.—Implements for breech and muzzle guns. 269

302 Stephens, R. E., Owen Sound, Ont.—Breechloading rifle. This rifle is remarkable for having only the minimum of motions, cock, load, and fire; the maximum of rapid fire is consequently attained. It has the side-hinge block breech. 269

303 Kilby, R. H., Montreal, Q.—Evans repeating rifle. 269

305 Egan, John, Halifax, N. S.—Case of guns and rifles. 269

Medicine, Surgery, Prothesis.

307 Miller, Hugh, & Co., Toronto, Ont.—Tick destroyer for sheep. 272

310 Stewart, George, jr., St. John, N. B.—Ship's medicine chest. 272

311 Marter, F. B., Halifax, N. S.—Ship's medicine chest. 272

314 Canada Truss Factory, Montreal, Q.—Surgical apparatus, artificial limbs. 276

315 Pourtier, M., Quebec, Q.—Philodonte fountain. 277

Hardware, Edge Tools, Cutlery, and Metallic Products.

316 Moore, Th., Cooksville, Ont.—Axe and tool handles. 280

318 Smith, R. H., & Co., St. Catherine, Ont.—Saws. 280

320 Dates Patent Steel Co., Toronto, Ont.—Edge tools. 280

322 Ahern & Walsh, Ottawa, Ont.—Lumbermen's tools. 280

323 Robertson, Peter, Ottawa, Ont.—Lumbermen's and stonecutters' tools. 280

324 Warnock, Jos., & Co., Galt, Ont.—Edge tools for wood, iron, and stone. 280

325 Booth, G., Toronto, Ont.—Engine and pipe wrench. 280

327 Chapleau, Godfroi, Montreal, Q.—Limestone cutters' tools. 280

328 Gilmour, G., Cote St. Paul, Q.—Augers and bits. 280

329 Boivin & Co., New Liverpool, Q.—Axes and edge tools. 280

332 Spiller Bros., St. John, N. B.—Edge tools and cutlery. 280

335 Broad, E., St. John, N. B.—Axes, edge tools, hammers. 280

339 Morley, Victoria, Br. Col.—Carpenters' mallets, yew and arbutus. 280

340 Cable, Bayard, & Co., Montreal, Q.—Adjustable elastic razor strop. 281

341 Whelpley, J. Albert, Greenwich, N. B.—Skates. 281

342 Starr Manufacturing Co., Halifax, N.S.—Skates. Acme, Club, Forbes' patent, sold largely in Russia, Sweden, Norway, Denmark, France, England, and United States. Being self-fastening, it possesses great merit for convenience. Quality superior. 281

343 Fenerty, E. L., & Co., Halifax, N. S.—Skates. 281

344 Copp Brothers, Hamilton, Ont.—Enameled ware. 283

347 Laidlaw, A., & Co., Hamilton, Ont.
a Enameled hollow ware. 283
b Enameled plumbers' ware. 284

349 Dixon, Smith, & Co., Toronto, Ont.—Sash fastener. 284

352 Campbell, Geo., Toronto, Ont.—Fireproof shutters. 284

353 Gibbs, Geo., & Co., Port Hope, Ont.—Nuts and bolts. 284

354 Law, John, London, Ont.—Brass work. Our mica slit lubricator will bear high pressure, is transparent, will not break. Our water-gauge glass guard and new mode of packing is very durable. Law's patent tar and petroleum burner demonstrates gas tar and petroleum tar as a good and handy fuel. A quarter-inch stream of tar will give fifty horse-power sure. 284

355 Griffith & Co., Toronto, Ont.—Locks and latches. 284

356 Brisley, W., Toronto, Ont.—Clip hook. 284

358 Stringer, Jos., Kingston, Ont.—Locks. 284

359 Cavern & Button, Gananoque, Ont.—Hinges and nails. 284

360 Ritchie, John, & Son, Toronto, Ont.—Brass work. 284

363 Pillow, Hersey, & Co., Montreal, Q.—Tacks, nails, spikes, horseshoes. American export agents and foreign visitors interested in this class of goods will do well to examine them. We endeavor to please all in executing orders intrusted to us. They can be sold at prices that must induce buyers. 284

365 Ives, H. R., Montreal, Q.—General hardware. 284

370 Belanger, Vinet, & Dupart, Montreal, Q.—Axles. 284

373 Foster, S. R, & Son, St. John, N.B.—Tacks, nails. 284

374 McKenzie, M., Prince Edward's Island.—Burglar-proof locks. 284

376 Starr Manufacturing Co., Halifax, N. S.—Nails, spikes, bolts, cans, dies. 284

Fabrics of Vegetable, Animal, or Mineral Materials.

379 Gurd, J. R., London, Ont.—Corn broom and whisks. 286

381 Simms, T. S., & Co., St. John, N. B.—Brushes. 286

382 Whitehead & Turner, Quebec, Q.
a Brushes, brooms, dusters. 286
b Fancy woodenware. 289

383 Nelson, H. A., & Sons, Montreal, Q.—Brooms. 286

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Cordage, Leather, Wooden, Metal Ware.

385 Copland, McLaren, & Co., Montreal, Q.—Wire brushes for cleaning castings. 286

387 Copeland, Geo., Hamilton, Ont.—Cordage and twine. 287

390 Conner, Thos., & Sons, St. John, N. B.—Cords, ties, lines. 287

391 The Dartmouth Ropework Co., Halifax, Nova Scotia—Manila cordage and bolt rope, and tarred manila lanyards, four-strand tarred Russian hemp cordage and ratline. No. 1 navy, navy, and patent new stock oakum in 50-pound bundles, and the same qualities spun, ready for calkers to drive. The patent new stock oakum is made entirely from hemp and tow, tarred upon their own machinery, patented December 30, 1873. It can be carded or spun directly from tarring machine, the finished oakum being completed within the hour. 287

392 Bridge, Andrew, West Brook, Ont.—Pails and tubs. 289

393 Clerke & Co., St. John, N. B.—Lasts for boots and shoes. 289

394 Hall, G. B., Quebec, Q.—Tubs, pails. 289

396 Peacock, W., Montreal, Q.—Cricket bats. 289

399 Wendberg & Co., Toronto, Ont.—Galvanized ironwork. 291

Carriages, Vehicles, and Accessories.

419 Guerin, C., Ottawa, Ont.—Child's carriage. 293

426 Webb, John R., Quebec, Q.—Sliding sleigh. 295

431 Lugsden & Barnett, Toronto, Ont.—Ladies' hunting saddles. 296

432 Skellington, S., Bros., Windsor, Ont.—Whip lashes. 296

433 Borbridge, S. & H., Ottawa, Ont.—Harness. 296

434 Vahey, W., Forrest, Ont.—Collars and machine. 296

438 Percy, John, Bowmanville, Ont.—Horseshoes. 296

439 Weichel, M., Elmira, Ont.—Horseshoes. 296

440 Bell, C. R., Parkhill, Ontario.—Horseshoes. 296

441 Malcolm, R., Toronto, Ont.—Saddlery, harness, bags. 296

442 Cable, Bayard, & Co., Montreal, Q.—Halter clasps. 296

446 Culbert, W. H., Sussex, N. B.—Harness, collars. 296

449 Campbell & Fowler, St. John, N. B.—Springs and axles. 296

---

450 Clarke, R., & Co., St. John, N. B.—Lasts. 533

451 Bradshaw, T. H., St. Martin's, N. B.—Ship models. 594

452 Bradshaw, J. D., St. Martin's, N. B.—Ship models. 594

453 Date, John, Montreal, Q.—Diving apparatus. 594

454 Skinner, G. M., Gananoque, Ont.—Fishing tackle. 647

455 Scribner, D., St. John, N. B.—Salmon and trout rods. 647

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

FRANCE.

(*North of Nave, Columns 39 to 53.*)

Chemical Manufactures.

Chemical Manufactures.

1 Grillon, E., Paris.—Indian dates. 200

2 Coignet, Father & Son, & Co., Paris.—Chemical and pasture products. 200

3 Galzy, E., Lyons.—Insect products. 200

4 Fournier, Jean, Roanne, Loire.—Cream of tartar. 200

5 Hygienic Products Manufacturing Co., Paris.—Chemical preparations. 200

6 Limousin, Paris.—Pharmaceutical preparations; medicated capsules. 200

7 Limousin & Co., Paris.—Medicated capsules. 200

8 Michel, Pyrrhus, Vaison, Vaucluse.—Digestive elixir and vermifuge. 200

9 Rigollot & Co., Paris.—Mustard poultice and instantaneous plaster. 200

10 Rouault, Ch., Paris.—Syrup of iron and tar. 200

11 Audibran, Paris.—Anti-scorbutic elixir. 200

12 Baudon, Paris.—Wine of antimony. 200

13 Boude & Son, Marseilles.—Refined sulphur. 200

14 Beslier, A., Paris.—Pharmaceutical preparations. 200

15 Brasseur, Romorantin, Loir & Cher.—Pectoral tonic syrup. 200

16 Bravais, Rooul, & Co., Paris.—Pharmaceutical preparations. 200

17 Chevrier, Paris.—Pharmaceutical preparations. 200

18 Cléry, Hughes, Paris.—Pharmaceutical preparations. 200

19 Vicat, Joseph Henri, Paris.
a Insect powder, and instruments for its use. 200
b Liquid blacking. 202

20 Tancrède Bros., Paris.—Glue and gelatin, animal charcoal, bone tallow. 200

21 Daubin & Co., Paris.—Fly-paper and mosquito powder. 200

22 Druelle, Reims, Marne.—Champagne wines. 200

23 Dubois, Charles, Marseilles.—Special chemical preparations for the navy. 200

24 Garnier, P., Noyon, Oise.—Pharmaceutical preparations 200

25 Ducro & Co., Paris.—Meat extract. 200

26 Jacquand, Father & Son, Lyons.—Glues, gelatins, bone phosphates, etc. 200

27 Joseph, Victor, Petit Quévilly, near Rouen.—Oil for burns. 200

28 Lefebvre, Fortuné, Illiers, Eure & Loire.—Green water. 200

29 Reynal, Léonce, Paris.—Pharmaceutical preparations. 200

30 Rigand & Dusard, Paris.—Chemical and pharmaceutic preparations. 200

31 Rubaton, Ges., & Co., Marseilles.—Carbonate of soda. 200

32 Solvay & Co., Varangeville, Dombasle, Mewithe and Moselle.—Chemical products. 200

33 Torchon, Ch., Paris.—Pharmaceutical preparations. 200

34 Hottot, A., & Co., Paris.—Pepsin and other digestive preparations. 200

35 Thomas Brothers, Avignon, Vaucluse.
a Chemical products; artificial alizarine, sulphuric acid, etc. 200
b Madders. 202

36 Coux Roseaux, Asnieres, near Paris.—Oils and greases; covering for steam pipes. 201

37 Poiret & Son, Paris.—Soap in the form of letters and various ornaments. 201

38 Bourgeois & Co., Paris.—Machine oils. 201

39 Jolivet, L., Paris.—Wax tapers. 201

40 Deutsch, A., Paris.—Machine oils; refined petroleum. 201

41 Chivot, Naudé, Amiens, Somme.—Machine oils. 201

42 Roux, Charles, jr., Marseilles.—Soaps and raw materials; olive oil for dyers. 201

43 Rigaud & Co., Paris.
a Toilet soaps. 201
b Perfumery. 203

44 Violet, Godefroy, & Co., Paris.
a Soaps. 201
b Fine perfumery and raw materials. 203

45 Richter, F., Lille, Nord.—Ultramarine blue. 202

46 Berthoud & Co., Paris.—Blacking. 202

47 Antoine's, L., Son, Paris.—Writing inks. 202

48 Chiraux, L., Cambray.—Blacking. 202

49 Clauseau, Father & Son, Palun & Co., Avignon, Vaucluse.—Madder extract. 202

50 Coez, E., & Co., St. Denis.—Paints and varnishes. 202

51 Julien, A., & Co., Marseilles.—Chemical products, submarine paint. 202

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp 27-45.

52 Bourgeois, senior, Paris.—Fine colors for painting and drawing. 202

53 Caron, L., Paris.—Cement and plaster dryer. 202

54 Guinon's Son & Co., Lyons.—Chemical products for dyeing and printing. 202

55 Gillet & Son, Lyons.—Chemical products for dyeing. 202

56 Guimet, Lyons.—Ultramarine blue. 202

57 Hardy, Milori, Ch. G., Paris.—Colors. 202

58 Jacquot & Co., Paris.—Blacking. 202

59 Kaulek, Adolphe, Puteaux, Seine.—Coloring materials. 202

60 Larenaudière, F., Paris.—Inks. 202

61 Lacroix, A., Paris.—Vitrifiable colors for china, faience, church windows, opal, and enamel. 202

62 Lorilleux, Ch., Paris.—Black and colored typographic and lithographic inks. 202

63 Plateau, E., Paris.—Writing inks. 202

64 Poirrier, A., Paris.—Chemical products, coloring materials. 202

65 Seurin, J., Paris.—Varnish, mastic, and oil colors. 202

66 Toiray, Maurin, Paris.—Writing inks. 202

67 Foubert, A., Paris.—Hair dyes. 202

68 Brochocki, C. D., & Co., Boulogne, Seine.—Javelle water. 203

69 Chiris, A., Grasse, Alpes Maritimes.—Perfumery and raw materials. 203

70 Colas, E., & Christoff, C., Paris.—Essence of roses. 203

71 Delettrez, Adolphe, Paris.—Perfumery. 203

71*a* Chouet & Co., Paris.—Dentifrice water. 203

72 Hermann, Louis, Paris.—Raw materials for perfumery. 203

73 Lautier Sons, Grasse, Alpes Maritimes.—Pomades, essential oils, essences, etc. 203

74 Mottett, J., & Co., Marseilles.—Raw materials for perfumery. 203

75 Roure, Bertrand, Son, Grasse, Alpes Maritimes.—Raw materials for perfumery; extracts and essences. 203

76 Seguin, Bordeaux.—Zenobia water and dyes. 203

77 Sensfelder, Arcueil, Seine.—Eye water and pomades. 203

78 Viard, F., Paris.—Perfumery. 203

79 Viguier, Manager French Hygienic Society, Paris.—Figaro water. 203

80 Séguin, Paris.—Althocinum. 203

Ceramics—Pottery, Porcelain, Glass, etc.

84 Goyard, F., Paris.—Crucibles and furnaces for laboratories. 207

85 Simons & Co., Cateau (Nord).—Mosaic tiles of sandstone in vestibule of Department of Public Works Pavilion. 208

86 Muller, E., & Co., Ivry (Seine).—Enameled tiles in the vestibule and on the front of Department of Public Works Pavilion. 208

87 Ollive, A., Paris.—Faience pavements. 208

88 Trichaud, A., Marseilles.—Tiles. 208

89 Boulenger, senior, Paris.—Incrusted mosaic pavement. 208

90 Gien Pottery Mnfg. Co., Gien (Loiret).—Artistic faience. 210

91 Caille, Miss Fanny, Paris.—Artistic faience. 210

92 Montagnon, A., Nevers.—Artistic faience. 210

93 Howry, J., Paris.—Artistic china and faience, fancy furniture. 210

94 Hasslauer & de Champeaux, Givet (Ardennes).—Clay pipes 210

95 Aubry, J., Bellevue (near Toul).—Artistic faience. 210

96 Fiolet, L., St. Omer (Pas de Calais).—Clay pipes. 210

97 Brianchon, J., senior, Paris.
a Artistic faience. 210
b Pearl porcelain. 213

98 Sergent, Th., Paris.—Artistic faience. 211

99 Barbizet, Son, Paris.—Bernard Palissy faience. 211

100 Sohn, L., & Delabre, A., Paris.—Porcelain flowers, jewels, ornaments, crowns, and bouquets. 212

101 Woodcock, F., Paris.—Porcelain flowers and bouquet. 212

102 Blot, Paul, Paris.—China and glass. 213

103 Détemmerman, P., Paris.—Porcelain flowers. 213

104 Vacquerel, P. E., Paris.—Decalcomania on porcelain. 213

105 Thierry, Paris.—Decorated china. 213

106 Field-Haviland, Ch., Paris.—Porcelain. 213

107 Hache, Ad., & Lehalleur Bros., Paris.—White and decorated porcelain. 213

108 Haviland & Co., Limoges.—China. 213

109 Floreffe Company, Jeumont (Nord).—Mirrors and glassware. 214

110 St. Gobain, Chauny, & Cirey, Paris.—Plain, plated, and silvered glass; rough glass for skylights. 214

111 Pelletier, M. A., & Sons, St. Just on the Loire.—Stained window glass. 216

112 Appert, Lengele, & Co., Paris.—Glass cylinders. 216

113 Brocard, P. J., Paris.—Chandeliers and mirrors. 216

114 Souchet & Co., Paris.—Flowers in enamel. 216

115 Hue & Co., Paris.—Crystals for interior decorations. 216

Furniture and Objects of General Use in Construction and in Dwellings.

116 Raffl & Co., Paris.—Church statues and furniture. 217

117 Poussielgue, Rusand P., Paris.—Church decorations. 217

118 Perrot, Henry, Paris.—Bronzes for furniture. 217

Furniture, Glassware, Heating and Lighting Apparatus.

119 Parfonry & Lemaire, Paris.—Marble chimney pieces. 217

120 Touchard, Ernest, Paris.—Special ornaments for churches. 217

121 Duplan, Hamot, & Co., Paris.—Furniture. 217

122 Brunet, Paul, Paris.—Bronze and goldsmiths' wares for churches. 217

123 Morel, A., Paris.—Bronzes for furniture. 217

124 Michel, Louis, Toulouse.—Church decorations. 217

125 Mazaroz, Ribalier, Paris.—Artistic furniture. 217

126 Marga, Eugene, Paris.—Marble chimney piece. 217

127 Mayaud Bros., Paris.—Religious articles. 217

128 Marchand, I., Paris.—Decorated furniture. 217

129 Marchand, Louis-Léon, Paris.—Artistic bronzes for furniture. 217

130 Lichtenfelder, Paris.—Elastic steel seats. 217

131 Haffner, B., senior, Paris.—Safes with combination locks. 217

132 Kaffel Bros., Paris.—Bronze furniture with china, faience, crystal, and marble decorations. 217

133 Jolivet, L., Paris.—Candles for churches. 217

134 Houry, T., Paris.—Fancy furniture. 217

135 Gallais, A., Paris.—Lacquered furniture. 217

136 Froc, Robert, & Son, Paris.—Altars and religious statues. 217

136*a* Allard, Paris.—Furniture. 217

137 Eliaers, A. E., Paris.—Folding seats. 217

138 Cornu, E., & Co., Paris.—Bronzes. 217

139 Chovet, L., Paris.—Religious pictures. 217

140 Beysens & Beckers, Paris.—Religious articles. 217

141 Susse Brothers, Paris.—Bronzes. 217

142 Sussfeld, Lorsch, & Co., Paris.—Marble clocks. 217

143 Sauvage & Ruck, Paris.—Bronze mantel ornaments. 217

144 Frenais, Armand, Paris.—Unplated and plated knives, forks, and spoons. 218

145 Bitterlin, Paul, jr., Paris.—Glassware. 218

147 Haviland & Co., Limoges.—Table china. 218

148 Field-Haviland, Ch., Paris.—Table china. 218

149 Hache, Ad., & Pepin, Lehalleur Bros., Paris.—Table china. 218

150 Bitterlin, Son, Paris.—Glassware. 218

151 Blot, Paul, Paris.—Table glass and chinaware. 218

152 Lorin, A., Chartres (Eure & Loir).—Stained glass church windows. 219

153 Brocard, P. T., Paris.—Emdeane. glass. 219

155 Chabin, H., Paris.—Stained glass windows. 219

156 St. Gobain, Chauny, & Cirey, Paris.—Mirrors. 219

157 Mansuy-Dotin, Jules, Paris.—Artistic enamels for furniture. 219

158 Pelletier, M. A., & Sons, St. Just sur Loire.—Stained window glass. 219

159 Pottier, Paris.—Artistic enamels, Limousin and Henry II. style. 219

159*a* Brot, Leopold, Paris.—Mirrors in gilt frames; mirrors in furniture. 219

160 Thiry, jr., Paris.
a Galvanized iron bird cage. 219
b Forged iron pavilion. 227

161 Luttringer, Ch., Paris.—Pasteboard frames. 220

162 Neuvialle, J. B., Paris.—Heating apparatus. 222

163 Laperche, Paris.—Marble chimney pieces. 222

163*a* Bouhon & Co., Paris.—Bronze fire guards. 222

164 Aubry, T., Bellevue, near Toul.—Faience stoves. 222

165 Entz, H., Wazcon, near Sedan.—Portable cooking range used in the army. 222

166 Roux, L., Lyons.—Heaters and chimney pieces. 222

167 Robinot, Ch., Paris.—Gas fixtures. 223

168 Corbon, Paris.—Lamps. 223

169 Peltier, E., & Paillard, A., Paris.—Metallic labels and boxes for preserves; direct printing upon metals. 224

170 Barau & Colas, Nantes (à la Ville en Bois).—Metallic jars for preserving. 224

171 Mestre, A. de, Bordeaux.—Apparatus for corking gaseous liquids. 224

172 Letang, Th. I. B., Paris.—Chocolate moulds. 224

173 Gervais, A., & Co., Paris.—Kettles. 224

174 Fisse, Thirion, & Co., Reims.—Iron clasps; system of corking wines. 224

175 Denet, E., Paris.—Copper moulds for alimentary pastes. 224

176 Dagand, Etienne, Paris.
a Coffee pots used by the army, navy, steamships, and public establishments. 224
b Hot water baths. 226

177 Dienheim-Brochocki, T. O. de, Paris.—Automatic disinfector. 226

178 Chappée, A., Mans (Sarthe).—Iron water and gas pipes. 227

179 Richard, B., Longecourt, near Aisery (Cote d'or).—Massive floor with borders. 227

180 Regnier, Paris.—Economical wooden ridge of a house. 227

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Woven Goods, Silk.

181 Bonhomme, Uncle & Nephew, Paris.—Wooden doors of the vestibule, and wainscoting and frames of the drawings of the Department of Public Works Pavilion. 227

182 Moisant, A., Paris.—Metallic frame of Department of Public Works Exhibition Pavilion. 227

183 Secretan, E., Paris.—Copper sheets for construction. 227

Yarns and Woven Goods of Vegetable or Mineral Materials.

184 Pallu, Eug., & Co., Mahé (Seychelle Island).—Cocoanut fibres. 229

185 Dumortier & Cuigniet, Roubain (Nord).—Tickings. 230

186 Cartier-Bresson, Paris.—Cotton threads. 230

187 Perreaux, L. G., Paris.—Model of a military tent. 230

188 Walcker, W., Paris.—Military and garden tents. 230

189 Chiffray, A., Maronne, near Rouen.—Prints and calicoes. 232

190 Roussel, Emile, Roubaix (Nord).—Dyed and printed cotton fabrics. 232

191 Vraux & Co., Paris.—Linen thread. 233

192 Meunier & Co., Paris.—Linen and linen table covers. 233

192*a* Vrau & Co., Paris.—Linen and thread. 233

193 Hassebroucq Brothers, Comines (Nord).—Linen threads. 233

194 Vrau & Co., Lille.—Hemp thread for sewing. 233

Woven and Felted Goods of Wool, etc.

195 Demar, L., Elbeuf (Seine Inférieure).—Gentlemen's dress goods. 235

196 Dumortier & Cuignet, Roubaix (Nord).—Cloth. 235

197 Prouvost, Amédée, & Co., Roubaix.—Carded wools. 235

193 Chamber of Commerce, Reims.—Woolen fabrics. 235

199 Delamotte-Mongrenier, Reims (Marne).—Dyed merinoes, cashmeres, reps, etc. 235

200 Seydoux, Sieber, & Co., Paris.—Carded threads and woolen fabrics. 235

201 Talamon, Son, & Co., Paris.—Woolen fabrics. 235

202 Bellest, E., & Co., Elbeuf.—Woolen cloth. 235

203 Blin & Bloch, Elbeuf (Seine Inférieure).—Woolen cloth. 235

204 Decaux, Son, Elbeuf.—Woolen cloth. 235

205 Dabert & Co., Saint Denis (Seine).—Dyed woolen fabrics. 235

206 Fortin Bros., Paris.—Felts. 235

207 Fouchet, sr. & jr., & Hulme, Elbeuf.—Cloth. 235

208 Frèzon, senior, & Leclerc, senior, Amiens.—Cloth. 235

209 Philippe, C., Elbeuf (Seine Inférieure).—Cloth for pants and vests. 235

210 Mali, Henry W. T., & Co., Paris.—Woolen fabrics and cloth. 235

211 Pinon & Guérin, Paris.
a Cloth for men's wear. 235
b Novelties for females' wear. 238

212 Reynaud, Paris.—Medicated flannel. 236

213 Terrillon, L., Paris.—Shawls. 237

214 Robert, Guérin, Widow, & Son, Reims (Marne).—Merinoes and Scotch cashmeres. 238

215 Houpin, Ernest, Reims (Marne).—Dyed merinoes, cashmeres, reps, etc. 238

216 Maes, G., Clichy-la-Garonne.—Dyed woolen fabrics. 238

217 Dufourmantel, Ph., & Co., Corbie (Somme).—Woolen and silk warps. 238

218 Chalamel, Alf., & Co., Paris.—Dyed woolen fabrics. 238

219 Laroche, A., Saulxures (Vosges).—Cotton and wool, with process of manufacture. 238

220 Drogue & Monnard, Lyons.—Poplins. 238

221 Droz, Juillet, & Co., Lyons.—Poplins. 238

222 Gravier, Clément, Nimes (Gard).—Velvet carpets. 239

223 Duplan, Hamot, & Co., Paris.—Carpets. 239

224 Bertrand, Boulla, Nimes (Gard).—Imitations of old tapestries. 239

225 Braquenie Brothers, Paris.—Tapestries and carpets. 239

226 Grison, T., & Co., Lisieux (Calvados).—Dyed and printed cloth. 241

227 Guillaumet, A., Sons, Suresnes (Seine).—Dyed woolen fabrics. 241

228 Boquet, J., & Co., Amiens.—Velvet. 241

229 Chiffray, A., Maromme, near Rouen.—Printed woolen fabrics. 241

230 Roussel, Emile, Roubaix (Nord).—Dyed and printed woolen fabrics. 241

231 Piquée, F., & Bros., Paris.—Reps and velvets. 241

232 Poirrier-Mortier & Muller, Paris.—Dyed fabrics. 241

233 Vanoutryve, F., & Co., Paris.—Furniture coverings. 241

234 Wattine, Ch., & Co., Roubaix (Nord).—Furniture coverings and draperies. 241

235 Montagnac, E. de, & Son, Sedan (Ardennes).—Velvet. 241

236 Dupont, L., Paris.—Furniture coverings. 241

Silk and Silk Fabrics.

237 Pellet, A. P., St. Jean du Gard.—Raw silk. 242

238 Arles, Dufour, Lyons.—Raw silk. 242

239 Boudon, Louis, St. Jean du Gard.—Raw silk. 242

240 Chabert, J., & Co., Chomerac (Ardèche).
a Raw silk. 242
b Woven silks. 245

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Silk, Clothing.

241 Thomas Brothers, Avignon (Vaucluse).
a Raw silk. 242
b Silks. 245

242 Thomas, F., Pont-des-Charrettes (Gard).
a Cocoons and raw silk. 242
b Silks. 245

243 Bonnet & Co., Lyons.
a Raw silk. 242
b Failles, taffetas, and satins. 245

244 Chardin, Ernest, Paris.—Sewing and embroidery silks. 243

244*a* Poydebard, St. Paul-on-Jarret, Loire.—Sewing silk. 243

245 Hamelin, A., Son, Paris.—Silks. 244

246 Faye & Thévenin, Lyons.—Colored silks. 245

246*a* Droz, Juillet & Co., Lyons.—Silks. 245

247 Gascou, L. R., Montauban (Tarn and Garonne).—Bolting silk. 245

248 Gillett & Son, Lyons.—Black silks. 245

249 Giraud, Alex., & Co., Lyons.—Colored silks and foulards. 245

250 Trapadoux, A. L., Bros., & Co., Lyons.—Foulards. 245

251 Poncet, senior & junior, Lyons.—Silks. 245

252 Sévène, Barral, & Co., Lyons.—Failles. 245

253 Tapissier Sons & Debry, Lyons.—Black silks, failles, and taffetas. 245

254 Doux, E., & Co., Lyons.—Silks. 245

255 Mauvernay&Co., Lyons.—Silks. 245

256 Lachard Bros. & Co., Lyons.—Lining silks 245

257 Jaubert, Audras, & Co., Lyons.—Black silks. 245

258 Jaudin & Duval, Lyons.—Foulards. 245

259 Brosset-Heckel & Co., Lyons.—Satins. 245

260 Audibert, Monin, & Co., Lyons.—Silks and poplins. 245

261 Bardon & Ritton, Lyons.—Colored silks. 245

262 Bullot, C., Paris.—Millinery goods. 245

263 Huber, E., & Co., Paris.—Silk plush for hatters. 245

264 Tabard, Benoit, & Co., Lyons.
a Silks and failles. 245
b Moire antiques. 246

265 Bressen-Agnés & Co., Lyons.
a Silks. 245
b Gauzes. 247

266 Guinet, Ant., & Co., Lyons.
a Black silks. 245
b Velvets. 247

267 Jurie, A., & Co., Lyons.
a Silks. 245
b Velvets. 247

268 Gondard, Cirlot, & Martel, Lyons.
a Foulards. 245
b Velvets. 247

269 Martin, J. B., Tarare (Rhone).
a Silks 245
b Plush and velvets. 247

270 Million & Servier, Lyons.
a Silks. 245
b Velvets. 247

271 Champomy, J. B., Renaison (Loire).
a Foulards. 245
b Ribbons. 248

272 Gourd, Croizat, Son, & Dubost, Lyons.—Silks. 246

273 Henry, J. A., Lyons.—Silk fabrics for church ornaments and furniture. 246

274 Luthringer, Lyons.—Figured silks. 246

275 Tassinari & Chatel, Lyons.—Silks for church ornaments and furniture. 246

276 Chiffray, A., Maromme, near Rouen.—Printing upon silk. 246

277 Servant, C. J., & Co., Lyons.—Black velvets. 247

278 Montessuy & Chomer, Lyons.—Crapes. 247

279 Terrillon, L., Paris.—Fancy goods and handkerchiefs. 247

280 Villard & Co., Lyons.—Black velvets. 247

281 Bouchinet, Paris.—Dress goods. 247

282 Gautier, Bellon, & Co., Lyons.—Velvets. 247

283 Dornon, L., Lyons.—Silk gauzes for bolting flour, and sifting chemical and ceramic products. 247

284 Font, Chambeyron, & Benoit, Lyons.—Black velvets. 247

285 David, J. B., Saint-Etienne (Loire).—Ribbons. 248

285*a* Brionde, St. Etienne.—Velvet ribbons. 248

286 Girou Brothers, St. Etienne (Loire).—Velvet ribbons. 248

287 Lamary, Paris.—Silk watch guards. 249

Clothing, Jewelry, and Ornaments: Traveling Equipments.

288 Lutton, Am., Paris.—Chasubles. 250

289 Fromage, Lucien, & Co., Rouen.—Braces, belts, garters, and elastic tissues. 250

290 Tabourot & Pacault, Paris.—Shirts. 250

291 Vessiere-Paulin, J. A., Paris.—Children's clothing. 250

292 Vauthier, Mrs., Paris.—Children's clothing. 250

293 Tailors' Society, Paris.—Gentlemen's clothing. 250

294 Bullot, C., Paris.—Silk stockings. 250

295 Levilion, Paris.—Ladies' costumes and trimmings. 250

296 Lenoir, P., Paris.—Corsets. 250

297 Fouet, Mrs., Paris.—Ladies' underwear. 250

298 Farcy & Oppenheim, Paris.—Corsets. 250

299 Society of United Cutters, Paris.—Gentlemen's furnishing goods. 250

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45

300 Vasseur, Mrs. Virginie, Paris.
a Traveling and court dresses; cloaks. 250
b Laces. 252

301 Herth, Henry, Paris.—Boots and shoes. 251

302 Jouvin & Co., Paris.—Kid gloves. 251

303 Trèfousse & Co., Chaumont (Haute-Marne).—Kid gloves. 251

304 Poron Bros., Troyes (Aube).—Millinery. 251

305 Jouvin, Mrs. Xavier, Paris.—Kid gloves. 251

306 Jeandron-Ferry, Paris.—Ladies' boots and shoes. 251

307 Jugla, D., Paris.—Kid gloves. 251

308 Mèliès, Louis Stanislas, Paris.—Boots and shoes. 251

309 Nemoz, Pierre, Paris.—Ladies' and children's felt hats. 251

309*a* Legendre, Paris.—Boots and shoes. 251

310 Ruffin, J. B., Paris.—Hats for ladies and children. 251

311 Berr, Eugène, Paris.—Kid gloves. 251

311*a* Guibert, jr., Paris.—Gloves. 251

312 Bullot, C., Paris.—Millinery. 251

313 Buscarlet, Widow, & Malo, Paris.—Kid gloves and skins. 251

314 Shoemakers' Society, Paris.—Boots and shoes. 251

315 Chapsal, Auguste, Aurillac (Cantal).—Waterproof shoes. 251

316 Dubois, Gustave, Mony (Oise).—Boots and shoes. 251

317 Corady, Julia de, Paris.—Millinery. 251

318 Pinet, F., Paris.—Boots and shoes for ladies and children. 251

319 Huard, L., Paris.—Boots and shoes. 251

320 Hègle-Glandines & Corbeau, Paris.—Gloves. 251

321 Bacquet & Co., Saint-Pierre-les-Calais.—Machine-made laces. 252

322 Babey, Ch., Calais.—Tulles and embroideries. 252

323 Bailey, Alfred, Paris.—Tulles and gimp for furniture. 252

324 Boutenjeun, Saint-Pierre-les-Calais.—Machine-made laces. 252

326 Maxton, Robert, & Co., Saint-Pierre-les-Calais.—Machine-made laces. 252

327 Meunier & Co., Paris.—Embroidered curtains. 252

328 Millas, Toulouse.—Gimps for furniture. 252

328*a* Galoppe & Tragin, Paris.—Laces. 252

329 Herbelot & Devaux, Calais.—Blonde and laces. 252

330 Dieutegard, E. & E., Paris.—Trimmings. 252

331 Dognin & Co., Paris.—Lama, India, and Chantilly laces. 252

332 Giraud & Josserand, Tarare (Rhône).—Muslins and tarlatans. 252

333 Gaillard, J., senior & junior, Saint-Pierre-les-Calais.—Machine-made laces. 252

334 Frances Brothers, Saint-Pierre-les-Calais.—Tulle and blonde laces. 252

335 Flauraud & Son.—Laces. 252

336 Pauw, F. de, Paris.—Trimmings. 252

337 Perrin Brothers, Grenoble.—Kid gloves. 252

338 Raffin, Mrs. C. M., & Son, Tarare.—Tarlatans and muslins. 252

339 Terrillon, L., Paris.—Ladies' trimmings. 252

339*a* Crassier & Co., Paris.—Laces. 252

340 Cossard, Paris.—Laces. 252

341 Cazin & Noyon, Saint-Pierre-les-Calais.—Blonde and black laces. 252

342 Verdé-Delisle & Co. (India Company), Paris.—Hand-made lace. 252

343 Davenierè, E., jr., Saint-Pierre-les-Calais.—Machine-made laces. 252

343*a* Erassier, Paris.—Laces. 252

344 Collective Exhibit of the Calvados lace manufacturers.—Dalechamp, J., Caen; Lecornu, Caen; Lecoq-Lamotte, Caen; Leroy, Mrs., Caen; Mérouze, Mrs., Caen; Robert Bros., Courseulles-sur-Mer (Calvados); Mérouze, U., Caen; Verdé Delisle & Co., Caen. Laces. 252

345 Clèment & Co., Paris.—Pearls and diamonds. 253

346 Audy, Mrs., Paris.—Imitation pearls. 253

347 Bolzani, Jean, Son, Paris.—Chains. 253

347*a* Boucheron, Paris.—Jewelry. 253

348 Bourcier, Ch., Paris.—Imitation jewelry. 253

349 Carbonneaux, François, Paris.—Gilt and steel jewelry. 253

349*a* Otterbourg, Paris.—Jewelry. 253

350 Capra, J., Paris.—Gilt jewelry. 253

351 Foruch, A., Bourg (Ain).—Jewelry. 253

352 Hémery, Ed., Paris.—Gilt and gold-plated jewelry. 253

352*a* Briens, Paris.—Jewelry. 253

353 Hirn, A., & Co., Paris.—Gilt jewelry. 253

354 Levy, Isidore, Paris.—Imitation jewelry. 253

355 Maseurand Bros., Paris.—Gilt jewelry and pearls. 253

356 Murat & Co., Paris.—Gold-plated jewelry. 253

356*a* Bosset, Paris.—Jewelry. 253

357 Philippe, Emile, Paris.—Jewelry. 253

358 Piel, A., Paris.—Imitation jewelry. 253

359 Regad, Anatole, jr., Paris.—Imitation diamonds. 253

360 Savary & Rondeleux, Paris.—Jewelry and imitation stones. 253

361 Sordoillet, Joseph François, Paris.—Steel jewelry. 253

362 Soyer, Paul, Paris.—Jewelry. 253

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Jewelry, Fancy Articles, Stationery.

363 Topart Bros., Paris.—Imitation pearls and corals. 253

364 Touchard, Ernest, Paris.—Gilt church and theatrical ornaments. 253

365 Carmant, Adolphe, Paris.
a Jewelry. 253
b Fancy bronzes. 254

366 Cléray, E., Paris.
a Shell jewelry. 253
b Fancy articles. 254

367 Woodcock, F., Vaugirard.—Porcelain flowers. 254

368 Aubé, H., Paris.—Napkin ring and fastener. 254

369 Bapterosses, F., Paris.—Porcelain buttons and pearls. 254

370 Bicqué & Dupressoir, Paris.—Feathers. 254

371 Blot, Eugène, Boulogne-sur-Mer.—Clay pipes. 254

372 Bondier, Ulbrich, & Co., Paris.—Meerschaum and brier-wood pipes. 254

373 Bontems, B., Paris.—Moving and singing birds. 254

374 Bourgeois, senior, Paris.—Colors without poison, for toys. 254

375 Brodin, jr., Paris.—Aerostatic articles. 254

376 Cohumer & Collet, Paris.—Children's and dolls' furniture. 254

377 Charageat, E., Paris.—Paragon and automatic umbrella. 254

378 Dehors, A., Paris.—Toys. 254

379 Delivré, L., Paris.—Artificial flowers. 254

380 Deschamps, Maurey, & Co., Paris.—Toilet brushes. 254

381 Détemmermann, P., Paris.—Porcelain flowers. 254

382 Didout, H., Son, Paris.—Clasps for pocket books, cigar cases, etc. 254

383 Dupont, A., Beauvais.—Ivory brushes. 254

384 Faivre, Paris.—Toys. 254

385 Favier, A., Paris.—Flowers and leaves. 254

386 Fiolet, L., Saint Omer (Pas de Calais).—Clay pipes. 254

387 Girondeau, François, Paris.—Fancy bronzes. 254

388 Gogly, Auguste, Paris.—Artificial flowers. 254

389 Gosse-Perier, Paris.—Artificial flowers. 254

390 Guyot & Migneaux, Paris.—Birds and insects made of flowers and feathers. 254

391 Hasslauer, Mrs., & Champeaux de, Givet (Ardennes).—Clay pipes. 254

392 Hiélard, L., & Co., Paris.—Feathers and artificial flowers. 254

393 Jumeau, F., Paris.—Dolls. 254

394 Kees, Ernest, Paris.—Fans. 254

395 Lamarre, Paris.—Fancy articles. 254

396 Loiseau, A., Son, Paris.—Toys. 254

397 Loonen, F., Paris.—Ivory brushes. 254

398 Maltète, Paris.—Toys. 254

399 Mayaud Bros., Paris.—Medals and ornaments. 254

400 Muzet & Co., Paris.—Hair work. 254

401 Pinson, Paris.—Shell, ivory, and pearl fancy articles. 254

402 Radiguet, Paris.—Toys. 254

403 Ravenet, senior, Paris.—Combs. 254

404 Sohn & Delabre, Paris.—Porcelain flowers. 254

405 Souchet & Co., Paris.—Enameled flowers. 254

406 Truffy, Paris.—Mechanical toys. 254

407 Vacquerel, P. E., Paris.—Decalcomanie. 254

408 Voisin, V. C., Paris.—Fancy articles. 25

409 Bapterosses, F., Paris.—Buttons and pearls of porcelain. 254

410 Alexandre, Paris.—Fans. 254

411 Walker, W., Paris.—Traveling articles. 255

412 Lenègre, A., Paris.—Photographic albums and fancy leather work. 255

413 Revillon Bros., Paris.—Furs. 256

414 Jacquemin, Paris.—Historical costumes. 257

Paper, Blank Books, Stationery.

415 Dubourguet, A., Paris.—Inkstands and office and artists' articles. 258

416 Gaffré & Caen, Paris.—Steel pens. 258

417 Gonthier, Dreyfus, & Co., Paris.—Stationery, lithography, and engravings. 258

418 Panier, Ernest, Paris.—Mathematical instruments. 258

419 Plateau, E., Paris.—Office stationery. 25[illegible]

420 Poure, Gillot, O'Kelly, & Co., Boulogne-sur-Mer.—Steel pens and pen holders. 258

421 Rous, Ermond, Paris.—Inkstand. 258

422 Susse Brothers, Paris.—Fancy stationery. 258

423 Toiray, Maurin G., Paris.—Office stationery. 258

424 Bondier, Ulbrich, & Co., Paris.—Cigarette paper. 259

425 Bardou, J. P., Perpignan.—Cigarette paper. 259

426 Blanchet Bros., & Kléber, Paris.—Paper. 259

427 Bernard, J., & Co., Paris.—Papers. 259

428 Haymann Bros., Paris.—Tissue papers. 259

429 Hennecart & Co., Paris.—Papers. 259

430 Lacroix Bros., Paris.—Writing papers and parchments. 259

431 Maguet, Paris.—Fancy stationery and engraving. 259

432 Marais & St. Marie Paper Mills, Paris.—Paper. 259

433 Lair, E., Paris.
a Bond paper. 259
b Printing paper. 260

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Stationery, Weapons, Medical Appliances, Hardware.

434 Bécoulêt & Co., Paris.
a White and fancy papers. 259
b Colored papers. 264

435 Canson & Montgolfier, Paris.—Paper. 260

435*a* Lortie, Paris.—Bookbinding. 261

436 Hutinet, D., Paris.—Bristol board and cards. 262

437 Laroche, A., Saulxures (Vosges).—Vegetable paste for pasteboard manufacturers. 262

438 Desfeux, Ph., Paris.—Leather roofing. 262

439 Bourgeois, Martin, jr., Paris.—Decorative paintings for apartments and fireboards. 263

440 Roger & Montlouis, Paris.—Wall papers. 264

Weapons, etc.

441 Gévelot, Paris.—Guns and ammunition. 265

442 Jullien & Gauthey Bros., Paris.—Metallic cartridges. 265

443 Laffiteau & Rieger, Paris.—Fancy arms. 269

Medicine, Surgery, Prothesis.

444 Badiole, Henry, Tarbes (Hautes-Pyrénées).—Medicines. 272

446 Vie, Garnier, & Co., Paris.—Pharmaceutical preparations. 272

447 Valby, Dijon.—Medicinal capsules and pills. 272

448 Limousin, Paris.—Machine for the manufacture of capsules, and apparatus for inhaling oxygen gas. 274

449 Reynal, Léonce, Paris.—Physicians' case. 274

450 Brière, Jules, Alençon (Orne).—Hygienic nipples. 274

451 Benas, Jean Pierre, Paris.—Rubber surgical instruments. 276

452 Vergne & Chose Bros., Paris.—Rubber surgical instruments. 276

453 Rondeau Bros., Paris.—Rubber surgical instruments, truss. 276

454 Eliaers, A. E., Paris.—Chairs for invalids. 278

Hardware, Edge Tools, Cutlery, and Metallic Products.

455 Lichtenfelder, Paris.—Locksmiths' tools. 280

455*a* Segant, Paris.—Shoemakers' tools. 280

456 Pottecher, B., Bussang (Vosges).—Iron covers and currycombs. 280

457 Dugoujon, J., senior, Paris.—Saws. 280

458 Limet, Lapareillé, & Co., Paris.—Files. 280

459 Rheims, Anatole, Paris.—Military equipments; screws. 280

460 Guillemin, Renaut, Nogent (Haute-Marne).—Cutlery. 281

461 Girard, Charles, Nogent (Haute-Marne).—Cutlery. 281

462 Sommelet, Courcelles (Haute-Marne).—Cutlery. 481

463 Thévenot, Felix, Nogent (Haute-Marne).—Cutlery. 281

464 Thinet, Paris.—Cutlery. 281

465 Vitry Bros., Paris.—Cutlery. 281

466 Charbonne-Thuillier, J., Nogent (Haute-Marne).—Cutlery. 281

467 Couvreux, Wichard, Nogent (Haute-Marne).—Pruning shears and cutlery. 281

468 Thomachot-Thuillier, Nogent (Haute-Marne).—Scissors and pruning shears. 281

469 Dissoire, Nogent (Haute-Marne).—Surgical instruments. 281

470 Denizet, Langres (Haute-Marne).—Cutlery. 281

470*a* Scheidecker, Ch., Paris.—Shearing machines. 281

470*b* Pérard, V., Paris.—Sheep shearing machines. 281

471 Chateau, Louis Auguste, Paris.—Emery paper and cloth for polishing glass. 282

472 Deplanque, senior, Maison-Alfort (Seine).—Whetstones. 282

473 Dumas, Fremy, Mrs., Paris.—Emery paper and cloth. 282

474 Durrschmidt, Lyons.—Whetstones. 282

475 Edeline, Amédée Jean, Paris.—Burnishing stones. 282

476 Fournier, Dondel & Co., Paris.—Metallic fire fenders and bronze articles. 283

478 Marchand, Louis Léon, Paris.—Bronzes. 283

479 Martin, Louis, Paris.—Sheet iron ornaments. 283

480 Morel, A., Paris.—Bronze ornaments. 283

481 Perrot, Henry, Paris.—Bronzes. 283

482 Christofle & Co., Paris.—Goldsmiths' ware. 283

483 Froment-Meurice, Paris.—Goldsmiths' ware. 283

484 Cornu, Eug., & Co., Paris.—Bronzes. 283

485 Poussielgue-Rusand, Paris.—Bronzes and plated ware for churches. 283

486 Sauvage & Rück, Paris.—Bronzes. 283

487 Tahon, Felix, Lille.—Forged copper plates. 283

488 Susse Bros., Paris.—Bronzes. 283

489 Deny, Louis, Paris.—Construction materials. 284

489*a* Carmoy, Celestin, Paris.—Brass and steel nails. 284

490 Anthoni, G., Levallois-Perret (Seine).—Axles and springs for carriages. 284

491 Jeantaud & Co., Paris.—Carriage wheels. 284

492 David-Damoiseau & Co., Paris.—Chains. 284

493 Marquise Iron Co., Paris.—Chandeliers and stove pipes. 284

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

494 Mage, senior, Lyons.—Woven wire for mattresses. 284

495 Sirot, C. & L., Charleville (Ardennes).—Nails. 284

496 Vachette Bros., Paris.—Locks for furniture. 284

497 Chappée, A., Le Mans (Sarthe).—Iron pipes for water and gas. 284

498 Chameroy & Co., Paris.—Water pipes and cocks. 284

499 Cazaubon, D., Paris.—Pumps and water closets. 284

500 Gallais, A., Paris.—Gilt nails. 284

501 Thiry, jr., Paris.—Artistic locksmiths' goods. 284

Fabrics of Vegetable, Animal, or Mineral Materials.

502 Fromage, Lucien, & Co., Rouen.—Elastic fabric. 285

503 Bénas, Jean-Pierre, Paris.—Rubber surgical instruments. 285

504 Vergne & Chose Bros., Paris.—Rubber surgical instruments. 285

505 Rondeau Bros., Paris.—Rubber surgical instruments. 285

506 Vital, A., Paris.—Lithographic press rollers. 285

507 Deschamps, Mauroy, & Co., Paris.—Toilet brushes. 286

508 Dupont, A., Beauvais (Oise).—Toilet brushes and prepared bristles. 286

509 Loonen, F., Paris.—Brushes. 286

510 Pitet, senior & junior, Paris.—Brushes. 286

511 Roullies & Co., Paris.—Carpet brushes. 286

512 Carue, Paris.—Ropes. 287

513 Arnold, E., Paris.—Metallic, glass, porcelain, and wooden letters; coats of arms of all nations. 288

514 Bornet, Paul, Paris.—Signs and leather letters. 288

515 Boudvillain, J., Paris.—Trophy of flags. 288

516 Pichot, E., Paris.—Ornamental labels. 288

517 Moitrier, Leon, Bénaménil (Meurthe).—Wicker baskets. 289

518 Policard, Rene, Paris.—Flower stands, etc. 289

Carriages, Vehicles, and Accessories.

519 Mühlbacher, Paris.—Carriages. 292

520 Gaudichet, Vierzon Cher.—Carriages. 292

521 Desouches, Paris.—Carriages. 292

522 Binder Bros., Paris.—Carriages. 292

523 Million, Guiet, & Co., Paris.
a Carriages. 292
b Harness. 296

524 Perreaux, Paris.—Steam velocipede. 293

525 Huret, N., Paris.—Carriage. 293

526 Fortin Bros., Paris.—Harness felts. 296

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

GERMANY.

(South of Nave, Columns 28 to 38.)

Chemical Manufactures.

Chemical Manufactures.

COLLECTIVE EXHIBIT OF THE GERMAN UNION OF MANUFACTURING CHEMISTS. — MANUFACTURED CHEMICALS, ETC. 200-203

1 Kahlbaum, C. A. F., Berlin.
2 D'Andrian & Wegelin, Mülhousen.
3 Vorster & Grüeneberg, Kalk, near Cologne.
4 Schuchardt, Theodor, Görlitz.
5 Koepp, Rud., & Co., Oestrich.
6 Saame & Co., Ludwigshafen.
7 Th. Wurtz's successors, Leipsic.
8 Von Heyden, F., Dresden.
9 Chemical Joint Stock Co., Berlin.
10 Jobst, Friedrich, Stuttgart.
11 Fischer & Schmitt, Höchst.
12 Brohme & Co., Bergen-on-Dosse.
13 Bartels & Kroyemann, Frohse.
14 Trommsdorff, H., Erfurt.
15 Lindenbauer, Otto, Hanau.
16 Marquart, L. C., Bonn.
17 Loeflund, Edward, Stuttgart.
18 Suhr, W., Altona.
19 Heyl, J. F., & Co., Berlin.
20 Sauberlich, Anton, Zwickau.
21 Bloedner's, Joh. Chr., Son, Gotha.
22 Hübner, B., Rehmsdorf.
23 Saxon Thuringian Joint Stock Co., Halle-on-Saale
24 Ruffer & Co., Breslau.
25 Hisgen, G. C., Nassmühle, near Hanau.
26 Gans & Leonhardt, Frankfort-on-Main.
27 Clever, Joh., Werden.
28 Aniline Manufacturing Co., Rummelsburg and Berlin
29 Zeltner, Johann, Nuremberg.
30 Gysae, Robert, Oberlössnitz.
31 Ultramarine Works, Marienberg.
32 Kaiserslautern Ultramarine Works, Kaiserslautern.
33 Rosenstein, W., Stettin.
34 Vossen Bros., Aix-la-Chapelle.
35 Hirsch & Merzenich, Cologne.
36 Bayer, Fr., & Co., Barmen.
37 Johann Anton Farina, zur stadt Mailand, Cologne.
38 Mack, Ernst, Reichenhall.
41 Goedecke & Co., Leipsic.
41*a* Honigman, M. & Co., Aix-la-Chapelle.
42 Kluge & Pöritzsch, Leipsic.
42*a* Sieperman, C. F., & Son, Elberfeld
43 Bernhardi, J., Leipsic.
43*a* Gebens, Ernst, Baden-Baden.
44 Brückner, Lampe & Co., Leipsic.
45 Sachse, E., & Co., Leipsic.
46 Haensel, Heinrich, Pirna-on-Elbe.
47 Wolff, F., & Son, Carlsruhe.
48 Langwisch, Bernh., Hamburg.
49 Lohse, Gustav, Berlin.
50 Wilhelmi, F., Reudnitz.
51 Lüder & Leidloff, Dresden.
52 Kunheim & Co., Berlin.
53 Haarmann, W., Holzminden.
53*a* Royal Prussian & Ducal Brunswick Smelting Works of the Lower Hartz, Gaslar.—Sulphuric acid, intermediate products, etc. 200

54 Nörr, Eugene, Berlin.—Siphon valve. 200

STASSFURT COLLECTIVE EXHIBIT.

54*a* Royal Salt Works, Stassfurt.—Rock salt, salts of potassium, magnesium, etc. 200
54*b* Chemical Factory, Stassfurt.—Potassium salts, chloride of potassium, manure salts, etc. 200
54*c* Chemical Factory, Leopoldshall.—Chloride of potassium, sulphate of potash, glauber salts, etc. 200
54*d* Chemical Factory of Nett, Faulwasser, & Co., Leopoldshall.—Chloride of potassium. 200
54*e* Zimmer & Co., Stassfurt.—Artificial salts of chloride of potassium, manure salts, etc. 200
54*f* Lindemann, G., & Co., Stassfurt.—Chloride of potassium. 200
54*g* Douglas, B. W. B., Westeregeln.—Salt, medical and manure salts; plans, section of the mine. 200
54*h* Lairitz, C. & L., Remda.—Pine oil. 201

COLLECTIVE EXHIBIT OF BAVARIAN METAL LEAF AND BRONZE COLORS. 202

55 Haenle, Leo, Munich.
57 Fuchs, Gg. L., & Sons, Fürth.
58 Nuchterlein, Fried., Fürth.
59 Metz, Friedrich, Fürth.
60 Stoeber & Segitz, Fürth.

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45

Chemicals, Ceramics, Glass, Furniture.

61 Schaetzler, G. E., Nuremberg.
62 Weidner, J. L. & P., Nuremberg.
63 Reich, H. & Chr., Nuremberg.
65 Eiermann & Tabor, Fürth.
67 Spiegelberger, Ludwig, Fürth.
68 Cramer, J. W., Fürth.
69 Beckh, Georg Adam, Nuremberg.
71 Kühn's Wire Factory, Nuremberg.
72 Meier, J. C., Fürth, near Nuremberg.

73 Beyer, Edward, Chemnitz.—Copying, writing, and fancy inks. 202

74 Jäenecke Bros. & F. Schneemann, Hanover.—Printing inks; varnishes. 202

75 Vogel, M. B., Leipsic.—Colors. 202

75*a* Lesser, G., & Co., Leipsic.—Preparations for finishing textile manufactures. 202

76 Farina, Johann Maria, Jülichsplatz No. 4, Cologne.—Eau de Cologne. 203

77 Farina, F. Maria, Glockengasse 4711, Cologne.—Eau de Cologne extracts, Florida water, soaps, and perfumery. 203

78 Schimmel & Co., Leipsic.—Essential oils. 203

79 Gadamer & Jaeger, Waldenburg.—Swedish matches. 204

80 Hochstätter, Heinrich, Langen, near Darmstadt.—Matches. 204

Ceramics—Pottery, Porcelain, Glass, etc.

81 Mendheim, Georg, Berlin.—Clay goods. 206

81*a* Lonitz, Hugo, Neuhaldenslaben.—Jars, terra-cotta figures, etc. 206

82 Gundlach Bros., Grossalmerode.—Crucibles and fire-bricks. 207

83 Gundlach, W., & Son, Grossalmerode.—Fire-clay crucibles. 207

84 Stettin Fire-brick Manufacturing Co.—Fire-brick retorts and fire-bricks. 207

85 Gundlach, Joh., jr., Grossalmerode.—Crucibles and jars for ointments. 207

86 Knodchen, J. A., Höhr.—Clay ware. 207

87 Villeroy & Boch, Mettlach.—Mosaic tiles. 208

87*a* Wagner & Starker, Stuttgart.—Parquet tiles. 208

88 Telegraph Supply Manufacturing Co., Berlin.—Porcelain for chemical uses. 210

89 Royal Porcelain Works, Berlin.—Porcelain, buscuit work, etc. 207

90 Hanke, Reinhold, Höhr, near Coblentz.—Antique German pottery. 213

91 Merkelbach & Wick, Grenzhausen.—Pottery partly in the antique German style. 213

92 Joint Stock Association of Looking-glass Manufacturers & Manufacturing Chemists of St. Gobain, Chauny and Cirey, Stolberg, near Aix-la-Chapelle.—Looking-glass plates, mirrors, and rough glass. 214

COLLECTIVE EXHIBIT OF BAVARIAN LOOKING-GLASSES AND LOOKING-GLASS PLATE. 214

93 Schaller, Joh., Fürth.
94 Vogel, G., Fürth.
96 Berlin, J. W., Fürth.
97 Heilbronn, Leop., Fürth.
97*a* Winkler, Ch., & Son, Fürth.
97*b* Wiederer, N., Fürth.
97*c* Brann & Reich, Fürth.

98 Underberg-Albrecht, H., Rheinberg.—Bottles. 215

99 Greiner, Elias, Cousin's Son, Lauscha, near Sonneberg.—Enameling colors. 216

Furniture and Objects of General Use in Construction and in Dwellings.

100 Friedrich, O. B., Dresden.—Fancy furniture. 217

101 Gutte, Louis, Görlitz.—Wood carving. 217

101*a* Vogts, F., & Co., Berlin.—Furniture. 217

102 Kimbel, Martin, Breslau.—Fancy furniture, etc. 217

103 Schöttle, Georg, Stuttgart.—Furniture. 217

106 Völker, Otto, Berlin.—Carved furniture. 226

107 Tenner, A. B., Eisfeld.—Wooden rolling blinds. 217

108 German Sewing Machine Factory, Frankfort-on-Main.—Ship furniture for the prevention of sea-sickness. 217

109 Neuhusen, J., Berlin.—Billiard table. 217

110 Bahse & Haendel, Chemnitz.—School desk and bench. 217

111 Mayer's Art Institution for the Manufacture of Church Furniture and Decorations, Munich.—Wooden statues and altars. 217

113 Friedrich, Hch. Ottm., Beierfeld, near Schwarzenberg.—Tin-plated iron spoons and forks. 213

114 Schreiner, Anton, Nabburg.—Ornamental drinking utensils. 218

115 Woldemar, Wimmer, Annaberg, Saxony.—Gold and silver wire-ware. 218

117 Voeltzkow, W., Berlin.—Picture frames. 220

118 Voeltzkow, G. W., jr., Berlin.—Picture frames. 220

119 Massmann, F., Kiel.—Gold cornices. 220

119*a* Mendheim, Georg, Berlin.—Plans for stove. 222

120 Joint Stock Co. for the Manufacture of Bronze Goods & Zinc Castings, Berlin.—Chandelier of bronze, and zinc castings. 223

121 Körner & Co., Berlin.—Lamps. 223

122 Kleemann, C. A., Erfurt.—Lamps. 223

123 Schwarz, J. von, Nuremberg.—Gas-burners made of soapstone. 223

125 Normann, Joh. Georg, Nuremberg.—Moulds for confectioners' use. 224

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Woven and Felted Goods, Silk.

Yarns and Woven Goods of Vegetable or Mineral Materials.

128 Herrmann, L., jr., Dresden.—Woven wire goods. 228

129 Scholler, Ph. Jacob, & Sons, Neustadt-on-Hardt.—Woven wire goods. 228

130 Siemsen, Joh., Hameln-on-Weser.—Manila hemp goods. 229

COLLECTIVE EXHIBIT OF COTTON AND MIXED GOODS FROM THE GLADBACH DISTRICT. 230

131 Gladbach Joint Stock Spinning & Weaving Mills, M. Gladbach.

132 Busch Bros., M. Gladbach.

133 Droste & Siepermann, M. Gladbach.

134 Ercklentz, Max, &Co., M. Gladbach.

135 Goértz & Kirch, M. Gladbach.

136 Willemsen, P., Widow, M. Gladbach.

137 Rosenberg & Cohen, M. Gladbach.

138 Schlafhorst & Brüel, M. Gladbach.

139 Everling, Carl, & Co., M. Gladbach.

140 Ercklenz & Reuter, M. Gladbach.

141 Bötterling & Schultze, M. Gladbach.

142 Essers, Martin, M. Gladbach.

143 Croon Bros., M. Gladbach.

144 Langen, Kruchen, & Borrenkott, M. Gladbach.

145 Wolff, Fr., M. Gladbach.

146 Hellendall & Steinberg, M. Gladbach.

147 Grunwald & Klei, Rheydt.

148 Kropp, J. P., Rheydt.

149 Nacken, G. H., Rheydt.

150 Sanders, W., Rheydt.

151 Ax, Heinrich, Rheydt.

152 Oechelhäuser, Rheydt.

153 Coenen & Wolter, Odenkirchen.

154 Erckens & Co., Grevenbroich.

155 Rolffs & Co., Siegfeld.

---

156 Steam Net Manufactory, Itzehoe, Holstein.—Nets. 230

157 Rischbieter, Carl, Dessau.—Window-shades. 230

158 Schlieper & Baum, Elberfeld.—Calico. 232

COLLECTIVE EXHIBIT OF WURTEMBURG MANUFACTURERS OF LINEN GOODS.

159 Lang, Ed., of Blaubeuren.—Linen handkerchiefs. 233

160 Eckstein & Kahn, Stuttgart.—Table cloths, towels, shirts. 233

162 Pichler, Hermann, Urach.—Table cloths, damask covers. 233

163 Beck, E., Ulm.—Linen and cotton shirt fronts; linen. 233

164 Steam Ticking Mills, Göppingen.—Ticking. 233

165 Kolb & Schüle, Kirchlieun.—Fustian for bed covers. 233

166 Mayer & Co., Bielefeld.—Linen goods. 233

166*a* Meyer, Jos., Dresden.—Damask goods. 233

166*b* Lairitz, C. & L., Remda.—Linen fabrics. 233

166*c* Loewenberg, H., Charlottenburg.—Imitation leather goods 234

Woven and Felted Goods of Wool, etc

167 Bergmann & Co., Berlin.—Zephyr wool. 235

168 Hüffer, Heinrich, Crimmitschau.—Worsted for weaving. 235

170 Scholz, Paul, Friedberg-on-Oder.—Knitting yarns. 235

171 Tittel & Krüger, Leipsic.—Dyed zephyr wools. 235

RHENISH COLLECTIVE EXHIBIT OF CLOTHS. 235

172 Erckens', Joh., Sons, Burtscheid, near Aix-la-Chapelle.

173 Ackens, Grand, Ry. & Co., Eupen.

174 Delius, C., Aix-la-Chapelle.

175 Jansen, Joh. Wilh., Montjoie.

176 Knops, Aloys., Aix-la-Chapelle.

177 Schöller, J. P., Düren, near Aix-la-Chapelle.

177*a* Schöller, L., & Sons, Düren, near Aix-la-Chapelle.

178 Wiess Bros., Werden-on-Ruhr.

---

179 Weiss Bros., Leipsic.—Cloths. 235

180 Wurtemberg Felt Factory, Giengen.—Felt shabracks. 235

181 Marthaus, Ambrose, Oschatz.—Felt goods. 235

183 Kauffmann, Carl, Reutlingen.—Coverlets. 237

COLLECTIVE EXHIBIT OF ELBERFELD, MANUFACTURERS OF ITALIAN CLOTH AND TAILORS' TRIMMINGS. 238

184 Boeddinghaus, Fr., & Son, Elberfeld.

185 Boeddinghaus, Wilh., & Co., Elberfeld.

186 Herminghaus & Co., Elberfeld.

187 Jung & Simons, Elberfeld.

188 Lucas Bros., Elberfeld.

189 Schaefer & Co., Elberfeld.

190 Weerth, de, & Co., Elberfeld.

191 Wolff, R. & E., Elberfeld.

---

192 Worsted Spinning Mills, Kaiserslautern.—Worsted yarns. 238

194 Gevers & Schmidt, Schmiedeberg, Silesia.—Carpets. 239

195 Valckenberg & Schoen, Worms.—Artificial wool. 240

198 Linden Steam Mills Joint Stock Co., Linden, near Hanover.—Velvet. 241

199 Weigert & Co., Berlin.—Furniture plushes, etc. 241

Silk and Silk Fabrics.

200 Mez, Carl, & Son, Freiburg, Baden.—Sewing-silks. 243

201 Gebhard & Co., Elberfeld.—Satins, silks, etc. 245

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Silk, Clothing, Jewelry.

202 Gressard & Co., Hilden.—Silks, taffetas, foulards, etc. 245

203 Massing, Bros., & Co., Püttlingen, Lorraine.—Silk plushes. 247

204 Escales & Hatry, Saargemünde.—Silk plushes. 247

204*a* Hoemmighaus & de Greiff, Crefeld.—Silk velvets. 247

Clothing, Jewelry, etc.

205 Hake, Mrs. von, Berlin.—Ladies' underwear. 250

206 Gros & Co., Bruchsal, Baden.—Corsets. 250

207 Ottenheimer, J. M., & Sons, Stuttgart.—Corsets. 250

208 Gulden, Heinrich, Chemnitz.—Gloves. 251

209 Woller, Fr. Ehreg., Stollberg, near Chemnitz.—Cotton hosiery. 250

210 Kaufmann, A. & C., Berlin.—Paper collars and cuffs. 250

211 Ereutznach, Ed., successor, Chemnitz.—Cotton hosiery. 250

212 Scholz, Paul, Friedeberg-on-Oder.—Hosiery. 250

212*a* Bortfeld, Carl, Bremen.—Hats. 251

213 Miller, Thomas, Berlin.—Hats. 251

214 Natanson & Hurwitz, Berlin.—Felt shoes and boots. 251

215 Wolf, S., Mayence.—Shoes. (*In Shoe and Leather Building.*) 251

216 Koraczewski, G., Posen.—Shoes. (*In Shoe and Leather Building.*) 251

217 Krebs, F. Eugen, Regensburg.—Kid gloves. 251

218 Lehmann, Heinrich, Berlin.—Kid gloves. 251

219 Zeitteles, D., Esslingen.—Leather gloves. 251

220 Ellstätter & Urbino, Carlsruhe.—Leather gloves. 251

221 Ranniger, J. L., & Sons, Altenburg.—Leather gloves. 251

221*a* Doerffel, C. G., & Sons, Eibenstock.—Laces, embroidered covers. 252

222 Kuehn, Heinrich, Berlin.—Embroidery patterns. 252

222*a* Tittel & Krüger, Leipsic.—Embroidery. 252

223 Schneider, Bruno, Buchholz, Saxony.—Embroideries. 252

225 Aren & Blumenheim, Berlin.—Embroideries. 252

226 Hirschberg, M., & Co., Eibenstock.—Embroideries and laces. 252

227 Hesselbein, Sophie, Berlin.—Embroideries. 252

COLLECTIVE EXHIBIT OF IDAR-OBERSTEIN.—POLISHED STONES, AGATE GOODS, ETC. 253

228 Boehm, Philipp, Oberstein.

229 Hahn, Carl, Idar.

230 Leyser, Wilhelm, Idar.

231 Wild, J. C., IX, Idar.

232 Hahn, Philipp, Idar.

233 Heydt, Friedrich, Idar.

234 Caesar, Louis, Idar.

235 Herringer, Johann, Idar.

236 Fuchs, Friedrich August, Oberstein.

COLLECTIVE EXHIBIT OF GOLD, SILVER, AND PLATED JEWELRY. 253

237 Spranger, N., Schwäb. Gmünd.

238 Renner&Buchler, Schwäb. Gmünd.

239 Wöhler, Edward, Schwäb. Gmünd.

240 Ott, B., & Co., Schwäb. Gmünd.

241 Zieher, Ottmar, Schwäb. Gmünd.

242 Erhard & Sons, Schwäb. Gmünd.

243 Hauber, Gustav, Schwäb. Gmünd

244 Soergel & Stollmeyer, Schwäb. Gmünd.

245 Pleuer & Co., Stuttgart.

246 Strohmeier & Co., Stuttgart.

247 Gabler Brothers, Schorndorf.

248 Ritter & Co., Esslingen.

249 Zimmermann, E. G., Hanau.

250 Geissel & Hartung, Hanau.

251 Kurr-Schüttner, C., Hanau.

252 Steinhauer & Co., Hanau.

253 Weber, O., & Co., Hanau.

254 Weishaupt, C. M., Sons, Hanau.

255 Bissinger, C., Sons, Hanau.

256 Kraul & Bier, Hanau.

257 Hertel, C., & Son, Hanau.

258 Krug, J. M., Hanau.

259 Winkler, Carl, Hanau.

260 Drescher & Kiefer, Hanau.

261 Roth, J., Hanau.

262 Schehl, C. W., Hanau.

263 Zeuner, Hugo, Hanau.

264 Dingeldein Bros., Hanau.

265 Storck & Sinsheimer, Hanau.

266 Baker & Co., Hanau.

267 Volz-Bier, A., Hanau.

268 Schoenfeld, E., jr., Hanau.

269 Schantz & Katz, Pforzheim.

270 Spahn, C. C., Pforzheim.

271 Keller, Heinrich., Pforzheim.

272 Lay, Edward, Pforzheim.

273 Heidegger, W., & Co., Pforzheim

274 Deyhle Bros., Pforzheim.

275 Kiehnle, Aug., Pforzheim.

276 Gerwig, Aug., Pforzheim.

277 Bizer Bros., Pforzheim.

278 Wild & Co., Pforzheim.

279 Becker, Fritz, Pforzheim.

280 Siebenpfeiffer, C., Pforzheim.

281 Lodholz, Friedrich, Pforzheim.

282 Koch & Bergfeld, Bremen.

283 Humbert & Heylandt, Berlin.

284 Binder, W., Schwäb. Gmünd.

285 Becker, Chr., Pforzheim.

286 Felge, Paul, Berlin.

---

287 Burchardt, C. A., Berlin.—Artificial flowers and plants. 254

288 Boeck, W., Berlin.—Artificial leaves. 254

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Toys, Fancy Articles, Weapons, Medical Appliances.

289 Sachs, Joseph, & Co., Berlin.—Umbrellas, sunshades, etc. 254

290 Wingender Bros., Höhr, Nassau.—Clay and bruxère pipes. 254

291 Meyer, Heinrich, Hamburg.—Ivory goods. 254

292 Peine, Edward, Hamburg.—Cuff buttons. 254

BAVARIAN COLLECTIVE EXHIBIT OF TOYS AND SMALL WARES. 254

294 Pabst, G. J., Nuremberg.

295 Hinrichsen, W., Nuremberg.

296 Eichner, G. L., & Son, Nuremberg.

297 Issmayer, J. A., Nuremberg.

299 Norrmann, J., Nuremberg.

300 Helmbrecht, G., Nuremberg.

301 Schleuerpflug, E., Nuremberg.

302 Stief, J., Nuremberg.

303 Miller, Th., Nuremberg.

304 Strobel, J. P., Nuremberg.

305 Baudenbacher, C., Nuremberg.

306 Kithil, A., Nuremberg.

307 Uebelacker, L., Nuremberg.

308 Hess, Math., Nuremberg.

310 Fischer, J. G., Erlangen.

311 Schlenk & Lutzenberger, Nuremberg.

312 Probst, Gottfr., Nuremberg.

313 Hahn, Gottlieb, Fürth.

314 Ott, Gebhard, Nuremberg.

315 Ziegele & Hauck, Fürth.

316 Keller, Conrad, Fürth.

319 Pruckner, D., Munich.

320 Bettman & Kupfer, Bayreuth.

321 Stolze, J. F. E., Bayreuth.

322 Schlegel, J., Nuremberg.

324 Sichling, H., Nuremberg.

325 Plank, E., Nuremburg.

326 Barth & Wagner, Rodach near Coburg.—Mechanical toys. 254

327 Dressel, Cuno & Otto, Sonneberg, Thuringia.—Toys, dolls, and slates. 254

328 Schunemann, L., Magdeburg.—Dolls. 254

329 Hawsky, Adalbert, Leipsic.—Paper balloons. 254

330 Magnus, G., & Co., Berlin.—Billiard balls. 254

331 Oehme, J. D., & Sons, Grunhainichen.—Toys. 254

332 Knipp, T. F., Berlin.—Album. 255

333 Vitè, François, Berlin.—Leather goods. 255

Paper, Blank Books, Stationery.

334 Faber, A. W., Stein, near Nuremberg.—Lead pencils, water-colors, etc. 258

335 Pensel, H., & Co., Ludwigstadt, Bavaria.—Slates, etc. 258

336 Schwanhäuser, Nuremberg.—Lead pencils, rubber, chalk, etc. 258

337 Büttner, Ed., & Co., Berlin.—Fancy papers. 259

338 Heinitz & Seckelson, Berlin.—Fancy papers. 259

339 Mayer, M., Coblentz.—Envelopes. 259

340 Meissner, C. F., & Son, Raths-Damnitz, near Stolp.—Papers. 259

341 Munich-Dachau Joint Stock Paper Mill, Munich.
a Writing papers. 259
b Paper for artificial flowers. 264

342 Schött, Hermann, Rheydt.—Fancy papers, etc. 259

343 König, J. C., & Ebhardt, Hanover.—Account books. 261

344 Rufus, Fr. Wilh., Dortmund.—Account books. 261

345 Joint Stock Playing Card Manufactory, Stralsund.—Playing cards. 262

346 Adler, Geo., Buchholz, Saxony.—Card-board work. 262

347 Schlesinger, Martin, Berlin.—Paper letters, cards, etc. 262

348 Wiskott, C. T., Breslau.—Labels. 262

349 Haenle, Leo., Munich.—Gold and silver papers. 264

350 Herting, C., Einbeck, Hanover.—Paper-hangings. 264

351 Dessauer, Alois, Aschaffenburg.—Fancy colored papers. 264

353 Werner & Schumann, Berlin.—Paper letters. 264

Weapons, etc.

353*a* Krupp, Fr., Essen.—Cannon and projectiles. 267

354 Schilling, V. Chr., Suhl.—Military weapons. 269

Medicine, Surgery, Prothesis.

355 Scheller, Ferdinand, Hildburghausen.—Malt preparations. 273

356 Wolff, F. A., & Sons, Heilbron.—Pharmaceutical apparatus. 274

357 Lepowski, E., Heidelberg.—Rolling chairs, and general apparatus for the sick and wounded. 276

357*a* Müller, L., Lauscha.—Artificial human eyes. 276

357*b* Esmarch, F., Kiel.—Bandages and dressings. 276

357*c* Horn, G., Kiel.—Bandages, safeguards for broken legs, etc. 276

357*d* Hartmann, P., Heidenheim.—Prepared medical dressing materials, etc. 276

357*e* Surgical Clinic of the University of Koenigsberg.—Plaster of Paris and hemp bandages for fracture. 276

357*f* Port, Dr., Munich.—Dressing for fractures. 276

357*g* Moratski, A., New Buckan.—Plaster of Paris dressings. 276

357*h* Paper & Chemical Manufactory.—Plaster and dressing materials. 276

357*i* Beck, Dr., Carlsruhe.
a Dressings for wounds. 276
b Articles for transporting the wounded in battle. 278

357*j* Gehrig Brothers, Berlin.—Teething necklaces. 277

Medical Appliances, Metal and Wooden Ware.

357*k* Saal, F. O., Coblentz.—Model of larynx. 277

357*l* Plambeck, N., Hamburg.—Model of a hospital car, and other sanitary apparatus. 278

357*m* Lower Silesian and Markish Railway.—Models of cars, etc., for transportation of the wounded. 278

Hardware, Edge Tools, Cutlery, and Metallic Products.

358 Vorster, R. & H., Hagen, Westphalia.—Edge tools, etc. 280

359 Eisenführ, Wilh., Berlin.—Tools. 280

360 Böker, H., & Co., Solingen.—Cutlery, etc. 281

361 Hessenbruch, T., & Co., Ronsdorf.—Steel goods, cutlery, etc. 281

362 Höller, J. S., & Co., Solingen.—Steel goods, cutlery, etc. 281

363 Wellmann, Fr., Altona.—Cutlery. 281

364 Leykauf, George, Nuremberg.—Burnishing stones. 282

365 Felsing, Conrad, Berlin.—Ornamental castings. 283

366 Castner, A., Berlin.—Zinc castings. 283

367 Stolberg, Count, Wernigerodes Factory, Ilsenburg.—Ornamental castings, basins, etc. 283

368 Amsberg, Adolphe, Aix-la-Chapelle.—Door knobs. 284

369 Brousson, J., & Son, Neuwied-on-Rhine.—Nails, etc. 284

370 Roehle, Louis, Dresden.—Door and window knobs, etc. 284

371 Wire & Screw Factory, Talkau.—Screws. 284

372 Koch & Bein, Berlin.—Metal letters and castings. 284

Fabrics of Vegetable, Animal, or Mineral Materials.

375 Reissbarth, G. C., & Son, Nuremberg.—Brushes. 286

376 Kochs, Gustav, Broich, near Muhlheina-on-Ruhr.—Hempen and wire rope. 287

377 Lorenz, Gustav, Bockau, Saxony.—Basket ware. 289

378 Cordes & Ellgass, Delmenhorst, near Bremen.—Corks. 289

379 Lindemann, Carl, Dresden.—Corks. 289

380 Lürssen, Carl, Delmenhorst, near Bremen.—Corks. 289

381 Praechter, Bros., & Co., Heidelberg.—Cork ware. 289

382 Gagel, Lorenz, Lichtenfels.—Basket goods. 289

Carriages, Vehicles, and Accessories.

383 Dick & Kirschten, Offenbach-on-Main.—Axles for fine carriages. 293

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

AUSTRIA.

(South of Nave, Columns 23 to 28.)

Chemicals, Ceramics, Glass.

Chemical Manufactures.

1 **Gobetsky, Josef, Essegg.**—Prepared quinine. 200

2 **Mook, John Peter, Vienna.**—Extracts of soap and pine spurs, kali cream. 201

3 **Weineck, Ignaz, Stockerau.**
a Candles, soap, toilet soap. 201
b Perfumery. 203

4 **Fritsch, Ferdinand, Vienna.**
a Soap. 201
b Ink, colors. 202
c Perfumeries. 203

5 **Sarg, F. A., Son, & Co., Liesing, near Vienna.**
a Artificial wax candles, soap, glycerine, oleo margerine butter, etc. 201
b Toilet articles. 203

6 **Dobel, Paul, Boryslaw, Galicia.**—Crude and melted ozocerite. 201

8 **Sell, Charles, Pirano, Istria.**—Soap. 201

9 **Demartini, I., Prague.**
a Toilet soap. 201
b Perfumery. 203

10 **Calderara & Bankmann, Vienna.**
a Toilet and glycerine soap. 201
b Perfumery. 203

12 **Prochaska, Franz, Prague.**
a Toilet soap. 201
b Perfumeries, pomades, etc. 203

12a **Ujhely & Co., Stockerau.**—Candles, tapers, etc., of ceresine. 201

12b **Wagenmann, G., Vienna.**—Petroleum, mineral wax, candles, tapers, etc. 201

14 **Przibram & Co., Vienna.**—Alizarine, Adrianople red. 202

16 **Palme, Elias, Steinschonan, Bohemia.**—Glass and bronze lustre. 202

17 **Herbert, Franz Paul, Klagenfurt.**—White lead. 202

18 **Riha, Ernst, Pilsen, Bohemia.**—Water colors for artists. 202

19 **Andés & Son, Vienna.**—Lac, varnish, oil color, mastic. 202

20 **Ecker, Alexander, Stockerau, near Vienna.**—Colors for painters and carriage varnishers. 202

21 **Wuste, F., Vienna.**—Colors for stone and copper-plate printing. 202

30 **Pollak, Jacques, Vienna.**—Essences, essential oils. 203

Ceramics—Pottery, Porcelain, Glass, etc.

34 **Klammerth, Alois, Znaim, Moravia.**—Earthenware vessels. 210

35 **Zasche, Joseph, Vienna.**
a China. 210
b Porcelain. 213

36 **Fischer, Samuel, Vienna.**—China. 210

39 **Thun, Count v. Klosterle, Bohemia.**—China articles of luxury. 210

41 **Eberhardt, Carl, Prague.**—China-ware; flowers made of china, bouquets, wreaths, and jewelry. 213

42 **Chemical Technical Manufactory,** Elbogen, Bohemia.—Porcelain (lustrous colors). 213

43 **Riedl von Riedenstein, David & Fredrich, Dallwitz, Bohemia.**—China services. 213

46 **Ziegler's Son, Joh. Ant., Kreuzhutte,** Bohemia.—Blown plate-glass. 214

47 **Ziegler's Son, Andreas, Sofienhutte,** Bohemia.—Cast looking-glass, glass tiles. 214

48 **Austrian Glass Foundry Association, Aussig, Bohemia.**—Glass bottles. 215

49 **Schmid, Jos. Ed., Annathal, Bohemia.**—Concave glass articles. 215

50 **Batka, Franz, Prague.**—Glassware for chemical purposes. 215

51 **Franke, Carl, Prague.**—Chemists' fixtures. 215

52 **Umann, John, Tiefenbach, Bohemia.**
a Flagons. 215
b Glass articles. 216

53 **Rasch, Clemens, Meistersdorf, Bohemia.**—Concave glass articles. 216

54 **Lobmeyr, I. & L., Vienna.**—Glass articles. 216

55 **Grohmann & Kessler, Haida, Bohemia.**—Glass articles. 216

58 **Muller, Hermann, Ulrichsthal, Bohemia.**—Concave glass articles. 216

59 **Von Harrach, Count, Neuvelt, Bohemia.**—Glass articles. 216

60 **Tyrolese Glass Painting Manufactory,** Innsbruck.—Glass painting and annealing. 216

61 **Hartmann, Moritz, Pribram, Bohemia.**—Glass pearls and cylinders. 216

62 **Wagner, Franz, Meistersdorf, Bohemia.**—Glass and bronze articles. 216

63 **Zeckert, John, Meistersdorf, Bohemia.**—Glassware and bronze. 216

64 **Brunfant, Jules de, Vienna.**—Glassware. 216

65 **Schreiber, S. Neffen, Jos., Vienna.**—Glassware. 216

66 **Palme's Son, F. E., Zvecevo, Slavonia.**—Glassware. 216

67 **Stolzle's Sons, C., Vienna.**—Glassware. 216

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

68 Meyr's Nephew, Adolf, near Winterberg, Bohemia.—Glassware. 216

Furniture and Objects of General Use in Construction and in Dwellings.

69 Kohn, Jacob & Joseph, Vienna.—Furniture of bent wood. 217

70 Dillmann, I., & Fischer, L., Vienna.—Iron furniture. 217

71 Rigl, Rudolf, Vienna.—Iron double bed. 217

73 Stein, Carl, Vienna.—Cabinet furniture. 217

74 Thonet Brothers, Vienna.—Furniture of bent wood. 217

75 Hoyer, Joseph, Svetla, Hungary.—Plates of crystal. 218

76 Moser, Ludwig, Carlsbad, Bohemia.—Glass articles, painted services. 218

77 Lerl, Gustave, & Sons, Vienna.—Frames for photographs (in bronze). 220

78 Scheidl, Alois, Vienna.—Gold frames and cornices. 220

79 Krauliz, M., Vienna.—Frames for photographs. 220

80 Bambula, John, Vienna.—Bronze picture frames. 220

81 Sommerschuh, W. I., Prague.—Earthenware stoves and slabs. 222

82 Ostersetzer Brothers, Vienna.—Paper lamp screens. 223

83 Kerl's Heir, F. A., Platten, near Carlsbad, Bohemia.—Plated and tinned spoons, boxes, tin articles. 224

84 Kirchhof's Sons, C. F., Vienna.—Refrigerators. 224

85 Buchsbaum, Max, Vienna.—Ceiling ornaments. 227

86 Csánk & Co., Vienna.—Wood work, blinds, table mats, wall screens. 227

Yarns and Woven Goods of Vegetable or Mineral Materials.

87 Bentel, Franz, Vienna.—Wicker work 229

88 Richter, Ignaz, & Sons, Niedergrund, Bohemia.—Cotton velvets. 231

89 Parma, Joseph, Tichau, Moravia.—Bleached piques. 233

90 Regenhart, Raymann, & Kufferle, Vienna.—Table linen, linen. 233

92 Siegl, Carl, Vienna.—Bleached linen. 233

93 Weiss & Grohmann, Vienna.—Linen and cotton thread 233

Woven and Felted Goods of Wool, etc.

95 Huckel Sons, I., Neutitschein, Moravia.—Hatters' articles, felts. 235

96 Cloth Manufacturers' Association, Reichenberg, Bohemia.—Cloths, with and without finish. 235

98 Schmidt, I. Ph., & Sons, Reichenberg, Bohemia.—Woolens. 235

99 Iakob, Adolf, Reichenberg, Bohemia.—Woolens, military cloth. 235

100 Von Bauer, Otto, Brunn.—Woolens. 235

103 Siegmund, Wilhelm, Reichenberg.—Woolens. 235

104 Koch, Max, Vienna.—Woven long and square shawls 237

106 Hlawatsch & Isbary, Vienna.—Woven shawls. 237

107 Vöslau Yarn Manufactory, Vöslau, near Vienna.—Dyed woolen yarns. 238

111 Schweinburg, Gustav, Vienna.—Carpets. 239

Silk and Silk Fabrics.

113 Hornbostel, C. G., & Co., Vienna.—Silk and half silk goods. 245

114 Reichert's Sons, F., Vienna.—Silks. 245

115 Frebitsch, S., & Son, Vienna.—Silk articles. 245

117 Hetzer, Carl, & Sons, Vienna.—Silk ribbon and velvet. 248

118 Kemperling, John, & Sons, Vienna.—Silk ribbons. 248

119 Stefsky, Joseph, Stockerau.—Haberdasheries, woolen and silk cords and laces for military purposes. 249

120 Schmidl Sons, W., Vienna.—Passementerie. 249

Clothing, Jewelry, and Ornaments; Traveling Equipments.

121 Bauer, Albert, Humpoletz, Bohemia.—Cloth, velvets, clothing for military purposes. 250

122 Keller & Alt, Vienna.—Clothing. 250

124 Mottl Sons, M., Prague.—Men's clothing. 250

126 Straschitz, Beermann, Prague.—Men's clothing. 250

127 Schwarzmann, D., & Co., Vienna.—Men's clothing; European costumes, from coarse to fine. 250

128 Thieben, Emanuel, Vienna.—Woven shawls and dressing garments. 250

130 Werner, John, Prague.—Men's clothing. 250

131 Budan, Joseph, Prague.—Leather gloves. 251

132 Eckstein Brothers, Prague.—Kid gloves. 251

133 Engelmuller, Ferdinand, Prague.—Leather gloves. 251

134 Habig, Peter, & Co., Vienna.—Hats. 252

135 Bencker, M., & Son, Prague.—Kid gloves. 251

136 Lörincz, Stephan, Budapest.—Boots. 251

137 Micka, Karl, Prague.—Leather gloves. 251

138 Pilat, Anton, Prague.—Leather gloves. 251

139 Pokorny, Karl, Prague.—Leather gloves. 251

140 Reichart, Adolf, Vienna.—Shoes. 251

141 Repper, Joseph, Vienna.—Leather gloves. 251

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp 27–45.

Clothing, Fancy Goods, Jewelry.

142 Stiasny, Franz & Max, Vienna.—Leather gloves. 251

143 Dewidels, Simon, Prague.—Kid gloves. 251

144 Stoger, Ludwig, Vienna.—Leather gloves. 251

145 Hauer, Carl, Brunn.—Leather gloves. 251

146 Straub, August, Prague.—Leather gloves. 251

147 Frese, Anton, Prague.—Kid gloves. 251

148 Steinhilber, Anton, Prague.—Leather gloves. 251

149 Bencker, I. U., Prague.—Leather gloves. 251

150 Turnwald, Ch., Prague.—Leather gloves. 251

151 Braunek, Edward, Vienna.—Leather gloves. 251

152 Beutel, Franz, Vienna.—Bath shoes made of plaited rushes. 251

153 Aue, Fred. v. d., and Kollmann, Prague.—Kid gloves. 251

155 Berg, S., Krakau.—Albumen for the manufacture of gloves, condensed yolks of eggs. 251

156 Roth, Franz, Prague.—Leather gloves. 251

158 Suchy, Anton, Prague.—Leather gloves. 251

159 Schwarz & Son, Joh., Vienna.—Hatbands. 251

160 Vcelicka, August, Prague.—Kid gloves. 251

161 Haberkorn, George, Prague.—Leather gloves. 251

162 Hamerli, John, Funfkirchen, Hungary.—Leather gloves. 251

163 Hoffmann, Joseph, Prague.—Leather gloves. 251

164 Irmenbach's successor, Gottlieb, Prague.—Kid gloves. 215

167 Kubik, Joh. Nep., Stuhlweissenburg, Hungary.—Leather gloves. 251

168 Lowenstein, Adolf R., Vienna.—Fancy shoes. 251

170 Skrivan, John, & Son, Vienna.—Hats, felts. 251

171 Port, Alois, Vienna.—Leather gloves. 251

172 Bloch, E., & Sons, Brunn.
a Boots and shoes. 251
b Cartridge pouches. 255

174 Martius, W., Vienna.—Leather gloves. 251

175 Korb, Vincenz, Graslitz, Bohemia.—Silk laces, lace articles. 252

176 Czerminska, Inocenta, Wisniowczyk, Galicia.—Embroidery. 252

178 Richter, Edward A., Vienna.—Variegated embroidery, working materials requisite for the same. 252

179 Schnabl, Joseph, Gossengrun, Bohemia.—Laces, fichus, handkerchiefs, and fan decorations of lace. 252

181 Ullmann, J. F., Neudeck.—Laces. 252

182 Dorner, Emilie, Bosing, Hungary.—Laces and embroideries. 252

183 Erlbeck, Anton, Gossengrun.—Laces, fan decorations, handkerchiefs, and lace fichus. 252

184 Horner, Anton, Grossengrun, Bohemia.—Laces, lace fichus, and fan decorations. 252

185 Schmidl & Sons, W., Vienna.—Haberdashery, trimmings, silk and woolen braids. 252

186 Fritsch, Joseph, Gossengrun.—Laces, handkerchiefs, fichus, and fan decorations of lace. 252

187 Lapaine, Caroline, Idria.—Bobbinets. 252

189 Metzner, Bernhard, Graslitz, Bohemia.—Laces, handkerchiefs, and fan decorations. 252

190 Stramitzer, I., Vienna.—Point gaze tape laces. 252

191 Menzel, W. E., Teplitz, Bohemia.—Garnets, genuine and imitation stones (pierres de strasse). 253

192 Reif, Joseph, Prague.—Jewelry of precious stones. 253

193 Goldschmidt's Sons, Michael, Prague.—Gold and silver ornaments. 253

194 Steiner & Kolliner, Prague.—Garnet, gold and silver jewelry. 253

195 Goldschmidt, Louis A., Dubnik, Hungary.—Polished opals. 253

196 Markowitsch & Scheid, Vienna.—Silver trinkets. 253

197 Neustadtl, M. H., Prague.—Garnet jewelry. 253

199 Bolzani & Fussl, Vienna.—Gold chains. 253

200 Bergmann, Franz, Gablonz.—Imitation gems. 253

202 Rodek Brothers, Vienna.—Bronze and leather jewelry. 253

205 Kersch, Moritz, Prague.—Garnet articles. 253

207 Ulbrich, Franz, Ober-Kukan, near Gablonz.—Imitation of precious stones. 253

209 Hofrichter's Son, Joseph, Reichenau, near Gablonz, Bohemia.
a Imitation precious stones. 253
b Papier-maché boxes. 254

213 Schadelbauer, Vincenz, Vienna.—Mother-of-pearl buttons. 254

216 Baudissin, Countess Pauline, Vienna.—Artificial flowers. 254

217 Turners' Sample Office, Vienna.—Cork articles, tobacco pipe tube, and amber cigar holders. 254

223 Iaruschka, Joseph, Vienna.—Mother-of-pearl buttons. 254

226 Hieke, Augustine, Tyssa, near Bodenbach, Bohemia.—Horn and metal buttons. 254

227 Lux, Cl., Vienna.—Bronze articles. 254

228 Bergman, Franz, Vienna.—Bronze articles. 254

231 Hellmich, F. A. Eidam, Wolfersdorf, Bohemia.—Glass, pearls, bone, ivory, horn, and tortoise-shell buttons, real and imitation. 254

232 Heller's Sons, Balduin, Teplitz, Bohemia.—Metal buttons and trinkets. 254

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45

Fancy Goods, Stationery, Medical Appliances, Hardware.

234 Hiess, Franz, Vienna.—Turners' articles, meerschaum and amber. 254

237 Kemperling, Hermann, Vienna.—Turners' articles, pipes, cigar holders, canes. 254

241 Krehan, Ignaz, Vienna.—Mother-of-pearl buttons. 254

243 Kuzel, John, & Jankowsky, C., Vienna.—Turners' articles, inkstand, cigar holder, ash bowls, watch holder, candle screens. 254

248 Umann, John, Tiefenbach, Bohemia.—Paper weights. 254

251 Wagner, Franz, Meistersdorf.—Bronze articles. 254

252 Lederer, K., Gablonz, Bohemia.—Glass trinkets. 254

254 Hartmann, L., & Eidam, Vienna.—Turners' articles, smoking requisites made of meerschaum and amber. 254

256 Lukasch, I., Vienna.—Mother-of-pearl fancies. 254

256*a* Schneider, Wenzel, Prague.—Necessaries for the toilet, threading machines. 254

267 Sittig, Joseph, Vienna.—Horn buttons. 254

271 Coffani, Maria, Vienna.—Parasols, fans, hats, and trinkets, made of straw. 254

272 Bauer & Pokorny, Vienna.—Meerschaum pipes. 254

274 Osterritter, Joseph, Vienna.—Fans of tortoise-shell, ivory, feathers, silk, wood, and leather. 254

278 Puschner, Franz Anton, Tyssa, near Bodenbach, Bohemia.—Metal buttons, brooches, sets of earrings, emblems, medals, decorative buckles. 254

279 Schwan, Wilhelm, Willendorf.—Mother-of-pearl buttons. 254

283 Wittek, Adalbert, Vienna.—Mother-of-pearl buttons. 254

285 Steindl, Carl, Vienna.—Mother-of-pearl buttons. 254

286 Blazincic & Sons, John, Vienna.—Haberdashery. 254

290 Trebitsch, Arnold, Vienna.—Articles of meerschaum and amber. 254

291 Unger, Franz, Vienna.
a Smoking requisites. 254
b Leather articles. 255

293 Danberger, George, Vienna.—Bronze ware, frames for photographs, toilet looking glass, cigar holders, inkstands, match boxes. 254

297 Bechmann, A. F., Vienna.—Bronze ware. 254

298 Beihl, Franz, Vienna.—Bronze ware. 254

299 Frank, Joseph, Vienna.—Bronze ware. 254

300 Dziedzinski & Hanusch, Vienna.—Bronze articles. 254

301 Bohm, Anton, Vienna.—Bronze ware. 254

302 Bohm, Ludwig, Vienna.—Bronze ware. 425

306 Wertheimer, Joseph, Vienna.—Fans. 254

307 Wielander, Peter, Vienna.—Mother-of-pearl buttons. 254

308 Bambula, John, Vienna.—Bronze goods, albums, writing portfolios, belts. 254

310 Unger, Franz, Vienna.—Portemonnaie, frames for manufacture of leather fancy goods. 255

315 Seewald, Michael, Vienna.—Leather ware and trinkets. 255

316 Rodek Bros., Vienna.—Leather articles. 255

317 Osterritter, Joseph, Vienna.—Leather articles. 255

Paper, Blank Books, Stationery.

321 Fialkowski Bros. & Twerdy, Bielitz, Austria-Silesia.
a Writing paper. 259
b Printing paper. 260

322 Eichmann & Co., Arnau, near Prague.—Samples of paper. 259

323 Opitz & Son, Carl, Teplitz, Bohemia.
a Paper. 259
b Pasteboard. 262

325 Knepper, W., Vienna.
a Cigarette paper. 260
b Fancy paper. 264

326 Schloglmuhl Paper Factory, Vienna.—Paper rolls for printing machines. 260

327 Schoffel, Anton, Reichenau, Bohemia.—Papier-maché boxes. 262

328 Wesely, Veit., Vienna.—Boxes. 262

331 Ostersetzer Bros., Vienna.—Paper laces. 264

Weapons, etc.

333 Percussion Caps, Cartridge, & Breech Ring Factory, Prague.—Percussion caps, cartridges, and breech rings. 265

Medicine, Surgery, Prothesis.

334 Wilhelm, Franz, & Co., Vienna.—Drugs, medicinal herbs, volatile oils, etc. 272

335 Wartpatrikoff Bros., Vienna.—Insect powder. 272

336 Pollak, Jacques, Vienna.—Ether. 272

337 Zacherl, John, Vienna.—Insect powder and tinctures. 274

338 Hamerli, John, Funfkirchen, Hungary.—Leather trusses. 276

338*a* Politzer, Adam, Vienna.—Anatomical and pathologico-anatomical preparations. 276

339 Berghammer, Fr., Vienna.—Set of artificial teeth. 277

340 Perl, Joseph, Klausenburg, Hungary.—Teeth, sets of teeth. 277

341 Zsigmondy, Adolf, Vienna.—Teeth. 277

Hardware, Edge Tools, Cutlery, and Metallic Products.

343 Wertheim, Baron Franz, Vienna.—Complete representation of the Austrian tool manufacture. 280

344 Schneider, Wenzel, Prague.—Fine penknives. 281

346 Winkler, Alois, Vienna.—Cast zinc articles, plates, emblems, letters, and coat of arms. 283

347 Winkler, Michael, Vienna.—Cast metal signs and letters. 283

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Manufactures, Art, Machinery, Animal Products.

348 Moravia Ironware Industry & Trade Co., Vienna.—Nails, screws. 284

Fabrics of Vegetable, Animal, or Mineral Materials.

350 Schnek & Kohnberger, Vienna.—India-rubber goods. 285

351 Hausmann, Wilhelm, Reichenberg.—Rope articles, twine, cords, girths. 287

352 Kohl, August, Vienna.
a Hemp hose, mill straps for mills. 287
b Fire buckets for mills. 289

Carriages, Vehicles, and Accessories.

353 Lohner & Co., Jacob, Vienna.—Phaeton carriages. 292

356 Armbruster, Sebastian, Vienna.—Landau coach. 293

357 Bloch & Sons, E., Brunn.—Sole-leather saddle cloths. 296

Painting.

357*a* Hofrichter's Sons, Reichenau, near Gablonz.—Oil paintings. 410

357*b* Isella, Pietro, Vienna.—Painting. 410

Engraving and Lithography.

357*c* Paterno, Fr., Vienna.
a Drawings. 420
b Chromo-lithographs. 424

357*d* Kaeser, P., Vienna.—Engravings. 421

357*e* Bader, F. W., Vienna.—View of Vienna. 422

358 Winkler, Alois, Vienna.—Oleographs. 424

358*a* Lehmann, Nikolaus, Prague.—Chromos. 424

358*b* Lott, Ludwig, Vienna.—Chromotypographs. 424

358*c* Reiffenstein & Rösch, Vienna.—Chromos. 424

358*d* Sieger, Edward, Vienna.—Lithographs. 424

358*b* Czeiger, S., Vienna.—Chromos. 424

Ceramic Decorations, Mosaics, etc.

359 Steinmetz, Franz, Petronberd, Illyria.—Inlaid work and veneer. 452

360 Egger, I. B., Villach, Karnthen.—Inlaid work and veneer. 452

Machines for Printing, Making Books, Paper Working, etc.

361 Wuste, F., Vienna.—Cylinder coverings. 543

Arboriculture and Forest Products.

362 Frankl, J. G. & L., Vienna.—Wood specimens for the manufacture of furniture. 601

Water Animals, Fish Culture and Apparatus.

364 Nachtmann, Jacob, Tannwald, Bohemia.—Chamber leech aquariums. 640

Animal and Vegetable Products.

365 Zacherl, John, Vienna.—Cleaned sponges. 650

370 Ujhely & Co., H., Stockerau.—Wax. 654

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp 27–45.

SWITZERLAND.

(North of Nave, Columns 52 to 55.)

Chemicals, Ceramics, Woven Goods, Silk.

Chemical Manufactures.

1 **Guyot-Lupold, A., Locle, Ct. Neuchâtel.**—Chemical products, artificial black diamond, diamantine, powder of rubies, enamels for jewelry. 200

4 **Amblet & Poncet, Geneva.**—Oil for watches and instruments of precision. 201

5 **Brunnschweiler, Traugott, St. Gallen.**—Caseum for calico printing, caseum glue for cold glueing. 201

6 **Vaucher, L., Peseux, near Neuchâtel.**—Animal oil for chronometers and fine watches. 201

7 **Bindschedler & Busch, Basle.**—Raw materials for the manufacture of dyes, aniline dyes, artificial alizarine. 202

8 **Brunnschweiler & Son, St. Gallen.**—Printing inks, inks for Morse & Hughes' apparatus, extracts of ink in powder. 202

9 **Durand & Huguenin, L., Basle.**—Naphthaline, resorcine, fluorescene, eocene, phthaline and solutions, sefranine, galleine, ceruleine, steam blue, etc. 202

10 **Bühler, Emile, Neuchatel.**—Hair regenerator, pomade, balsam, tooth-water, quinine-water. 203

Ceramics—Pottery, Porcelain, Glass, etc.

11 **Collin, Ch., Derendingen, Ct. Solothurn.**—Watch glasses. 214

Yarns and Woven Goods of Vegetable or Mineral Materials.

13 **Billeter, C. G., Zurich.**—Singed cotton threads, unbleached cotton sewing thread, cotton leash threads. 230

14 **Brunner, A., Männedorf, Ct. Zurich.**—White and colored bed-covers. 230

15 **Gujer-Brunner, Uster, Ct. Zurich.**—White and colored tricot bed-covers and table-cloths. 230

16 **Oetiker, M. R., Männedorf, Ct. Zurich.**—White and colored cotton bed-covers and table-cloths. 230

17 **Schlaepfer, J. U., Waldstatt, Ct. Appenzell, Inner Rhodes.**—Muslin. 230

18 **Fierz, Henri, Zurich.**—Cotton goods. 231

19 **Wallenstadt Fancy Cotton Goods Mills, Wallenstadt, Ct. St. Gallen.**—Fancy cotton goods. 231

20 **Fierz, Henri, Zurich.**—Turkey-red printed handkerchiefs, cashmere shawls, door-curtains, chintz. 232

21 **Hanhart-Solivo, J., Dietikon, Ct. Zurich.**—Cambrics, handkerchiefs, shawls, chintzes. 232

22 **Azmoos Weaving Mills, Azmoos, Ct. St. Gallen.**—Figured cotton goods. 232

23 **Schneider, C. F., Dättlikon, Ct. Zurich.**—Lint for hospitals, colored wadding for jewelry. 233

Woven and Felted Goods of Wool, etc.

24 **Munzinger, Conrad, Olten, Ct. Solothurn.**—Felt of wool and cotton for paper mills, cylinder-cloth. 235

25 **Siegenthaler, Sl., Enggistein, near Worb, Ct. Berne.**—Boots and shoes of felt, with and without wooden soles, felt soles, felt tablets for watch-makers, filtering bags, felt trimmings. 235

26 **Ernst, Ferdinand, Winterthur, Ct. Zurich.**—Goods of wool and mixtures of wool. 238

27 **Schnyder, J. J., Wädensweil, Ct. Zurich.**—Worsted horse-hair and fibre for mattresses and upholstery, horse-tails, bristles. 240

Silk and Silk Fabrics

28 **Baumann, senior, & Co., Zurich.**—Silks. 245

28*a* **Zæslein & Müller, Basle.**—Argal, silk waste, and fabrics of silk waste. 245

29 **Baumann & Streuli, Horgen, Ct. Zurich.**—Silks. 245

30 **Dufour & Co., Thal, Ct. St. Gallen.**—Silk bolting-cloth, silk grit-gauze. 245

31 **Egli & Sennhauser, Zurich.**—Silk bolting-cloth, middlings purifiers. 245

32 **Frey-Feer, J., & Co., Aargau, Ct. Aargau.**—Silk ribbons, faille, cord-edged taffetas, sarsenets, listons, satins. 245

33 **Heidegger, Wegmann, & Co., Seefeld, Zurich.**—Silk bolting-cloth. 245

34 **Homberger Bros., Wetzikon, Ct. Zurich.**—Silk bolting-cloth. 243

35 **Jansen, Bodek, & Hertz, Riesbach, near Zurich.**—Silks and satins. 245

36 **Adlischweil Silk Goods Factory, Adlischweil, near Zurich.**—Silks. 245

37 **Winterthur Silk Goods Factory, Winterthur, Ct. Zurich.**—Umbrella silks. 24[illegible]

38 **Meyer, Bros., Zurich.**—Swiss silk bolting-cloth. 245

39 **Reiff-Huber, Zurich.**—Silk bolting-cloth. 245

40 **Rütschi, S., & Co., Zurich.**—Silks and satins. 245

41 **Ryffel & Co., Stæfa.**—Silks. 245

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Silk, Clothing, Jewelry, Weapons.

42 Schærer, Emil, & Co., Zurich.—Silks. 245

43 Schrœder, Wilhelm, & Co., Zurich.—Silks. 245

44 Schwarzenbach, Landis J., Thalweil, near Zurich.—Silks. 245

45 Stapfer, Joh., Sons, Horgen, Ct. Zurich.—Silks. 245

46 Stunzi & Sons, Horgen, Ct. Zurich.—Silks and satins. 245

Clothing, Jewelry, etc.

47 Blumer & Wild, St. Gallen.—Hosiery, ladies' fancy articles. 250

48 Bourquin, C. F., Cormondrèche, near Neuchâtel.—Wool hosiery, jackets, and waistcoats. 250

49 End-Ulmi, Ali., Lucerne.—Knitted under-garments. 250

50 Hess, Gebr., Amrisweil, Ct. Thurgau.—Colored shirts and over-shirts. 250

51 Huggenberger, U., Frauenfeld, Ct. Thurgau.—Hosiery. 250

52 Meyer-Wæspi & Co., Altstetten, near Zurich.—Knitted under-garments. 250

53 Wiki, B., Lucerne.—Gentlemen's clothing. 250

54 Bell, August, Kriens, near Lucerne.—Crinoline braids. 251

55 Chiesa Bros., Locarno, Ct. de Tessin.—Braids and straw hats, Canton Tessin specialty. 251

56 Eich & Co., Lenzburg, Ct. Aargau.—Horse-hair braids, straw-plaitings, cotton tress-work, borderings, hair-cloth. 251

57 Indermühle, E. Th., Berne.—Straw hats. 251

58 Isler, Aloyse, & Co., Wildegg, Ct. Aargau.—Hair and cotton plaits, fancy goods of hair, straw, cotton, and silk for hats and bonnets. 251

59 Isler, Jacob, & Co., Wohlen, Ct. Aargau.—Straw goods. 251

60 Walser, Conrad, Wohlen, Ct. Aargau.—Straw hats, plaits, and fancy articles of straw, crinoline, cotton, and manila hemp, tissues of straw, silk, and other materials for fancy boxes, sparterie, embroidery, and ornaments for bonnets. 251

61 Alder Bros., Herisau, Ct. Appenzell, Inner Rhodes.—Hand and mechanical embroideries. 252

62 Alder & Meyer, Herisau, Ct. Appenzell, Inner Rhodes.—Embroidered trimmings. 252

63 Baerlocher-Custer, Rheineck, Ct. St. Gallen.—Embroidery, lace curtains, tidies, bed-covers, pillow-case covers. 252

64 Basquin, Hector, & Schweizer, St. Gallen.—Machine embroideries. 252

65 Bion & Tschumper, St. Gallen.—Mechanical embroideries. 252

66 Fisch Bros., Buhler, Ct. Appenzell, Inner Rhodes.—Mechanical embroideries. 252

67 Göldy, A., & Co., St. Gallen.—Mechanical embroideries, Hamburg edgings and insertions. 252

68 Hirschfeld Bros. & Co., St. Gallen.—Swiss lace curtains. 252

69 Iklé Bros., St. Gallen.—Mechanical embroideries. 252

70 Locher Bros., Speicher, Ct. Appenzell, Inner Rhodes.—Mechanical embroideries on silk. 252

71 Wülflinger Machine Embroidery Establishment, near Winterthur, Ct. Zurich.—Colored embroidery by machinery, Hamburg edgings. 252

72 Scheitlin & Widmer, St. Gallen.—Mechanical embroideries. 252

73 Stäheli-Wild, C., St. Gallen.—Hand and mechanical embroideries. 252

74 Steiger & Co., Herisau, Ct. Appenzell, Inner Rhodes.—Mechanical embroideries, lace curtains. 252

75 Strauss, D., & Co., St. Gallen.—Lace curtains, drop laces, embroideries. 252

76 Sturzenegger & Rutz, Trogen, Ct. Appenzell, Inner Rhodes.—Cravats, edgings. 252

77 Sutter-Dörig, R., Appenzell.—Hand and machine embroidery. 252

78 Tobler, Ulr., & A., Rheineck & Thal, Ct. St. Gallen.—Machine embroidery. 252

79 Zähner & Schiess, Herisau, Ct. Appenzell, Inner Rhodes.—Hamburg edgings and insertions. 252

80 Zellweger, J. C., Trogen, Ct. Appenzell, Inner Rhodes.—Mechanical embroideries. 252

81 Drawing School of the Board of Trade, St. Gallen.—Embroideries executed from designs of the drawing school. 252

82 Urech, E., Herisau, Ct. Appenzell, Inner Rhodes.—Mechanical embroidery. 252

82*a* Zürcher-Banziger, J., Teufen, Ct. Appenzell, Inner Rhodes.—Mechanical embroidery. 252

83 Petit-Pierre & Bryson, Geneva.—Jewelry. 253

84 Gay, Jean, Geneva.—Watch chains. 253

84*a* Meylan & Mertens, Ed., Geneva.—Gold chains and chatelaines. 253

85 Jaccard, Eugène, St. Croix, Ct. de Vaud.—Plate engraved with flowers, ornaments, and devices relating to the Centennial 254

86 Rohr, Walter von, A., Mümliswyl, Ct. Solothurn.—Combs. 254

Paper, Blank Books, Stationery.

88 Müller, Johs., Schaffhausen.—German, French, English, and Spanish playing cards, railway tickets. 262

Weapons, etc.

89 Swiss Manufacturing Co., Neuhausen, near Schaffhausen.—Vetterli-system, infantry and target rifles, blank cartridges. 265

89*a* Schmidt, Major, Berne.—Rifle and revolver. 266

Medicine, Surgery, Prothesis.

90 Durieu, Oettli, & Co., Vevay, Ct. Vaud.—Milk-powder. 273

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Medical Appliances, Hardware, Animal and Vegetable Products.

91 Gerber & Co., Thun, Ct. Berne.—Condensed milk, children's food, medical condensed milk. 273

92 Lapp, C., Freiburg.—Food for children, condensed milk. 273

93 Naumann-Burkhardt, H., Basle.—Extract honey, syrup, and flour of meat. 273

94 Nestlé, Henry, Vevay, Ct. Vaud.—Milk food or lacteous farina. 273

94*a* Wander, G., Berne.—Extracts of malt and malt drops. 273

95 International Bandage-shiff Factory, Schaffhausen.—Dressings, lint, appliances for the dressing of wounds, pharmaceutical apparatus. 276

Hardware, Edge Tools, Cutlery, and Metallic Products.

96 Spillmann, Heinrich, Unterstrass, near Zurich.—Engineering tools. 280

97 Schneider, C. F., Geneva.—Complicated pocket-knives. 280

98 Bürgin, Bros., Schaffhausen.—Upholsterers' nails. 280

98*a* Le Coultre, Jacques, Sentier, Ct. Vaud.—Razors. 281

98*b* Bossi, Gaetano, Locarno, Ct. Tessin.—New system of safety locks. 284

Fabrics of Vegetable, Animal, or Mineral Materials.

99 Bally & Schmitter, Aargau, Ct. Aargau.—Elastic webs for boots. 285

AGRICULTURE.

Agricultural Products.

1 Anastasio, Giuseppe, Lugano, Ct. Tessin.—Cigars. 623

2 Kottmann, J., Solothurn.—Cigars. 623

3 Sauter, A., Diessenhofen, Ct. Thurgau.—Cigars. 623

Animal and Vegetable Products.

4 Schleife Tanneries, Winterthur, Ct. Zurich.—Blackened calf leather. 652

5 Hürlimann, J. J., Rapperswyl, Ct. St. Gallen.—Swiss honey. 654

6 Society for Bee Culture, Lukmanier, Sobrio, Ct. Tessin.—Honey and wax. 654

7 Coffee Surrogate Factory, Zurich.—Fig-meal (surrogate of coffee), conserved coffee. 656

8 Robbi & Co., Geneva.—Chocolate. 656

9 Schweigert, Auguste, Geneva.—Theodoro's sauce. 656

10 Suchard, Ph., Neuchatel.—Chocolate, cacaos. 656

11 Almen, von, & Kopp, Fleurier, Ct. Neuchâtel,—Absinthe. 660

12 Berger, C. F., Couvet, Ct. Neuchatel.—Absinthe. 660

13 Bernhard, S., Samaden, Engadin, Ct. Graubünden.—Jva bitter, Jva perfume, and tincture. 660

14 Bolle, L. A., Son, Verrières, Ct. Neuchâtel.—Green and white absinthe. 660

15 Grandpierre, J., Geneva.—Vermouth. 660

16 Henny & Moullet, Fleurier, Ct. Neufchâtel.—Absinthe. 660

17 Kirschwasser Company Zug, Zug.—Kirschwasser. 660

18 Nievergelt, Joh., Maschwanden, Ct. Zurich.—Kirschwasser. 660

19 Pernod, Ed., Couvet, Ct. Neuchatel.—Green and white absinthe, gentian-liquor, kirschwasser. 660

20 Scherer, Bros., Meggen, Lucerne.—Kirschwasser. 660

21 Schmidt, Joseph, Zug.—Sweet-liquors, righibitter, stomach-bitters, kirschwasser. 660

22 Stauffenegger, Chr., Travers, Ct. Neuchâtel.—Absinthe. 660

23 Gessler-Zeller, J., Basle.—Leckerly of Basle. 660

24 Mattmann, Brothers, C. & J., Horw, near Lucerne.—Italian pastry. 661

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

BELGIUM.

(North of Nave, Columns 54 to 59.)

Chemicals, Ceramics, Glass.

Chemical Manufactures.

1 **Hemptinne, A. de, Son, Molenbeek,** St. Jean, near Brussels.—Plan of apparatus for manufacturing sulphuric acid. 200

3 **Meeus, M. & J., Antwerp.**—Refined sulphur. 200

4 **Solvay & Co., Couillet, near Charleroi.**—Chemicals, soda-salt. 200

6 **Des Cressonnières (widow) & Son,** Molenbeek, St. Jean, near Brussels.—Toilet soap. 201

8 **Staes, Sproelants, Termonde, East** Flanders.—Linseed, rape-seed, hemp-seed, cotton, and other oils. 201

9 **Botelberge, Gustave, & Co., Melle,** near Ghent, East Flanders.—Ultramarine. 202

10 **Gilkinet, C. J., Ensival, near Verviers.**—*Cache-epoutil,* or special ink, to point out the defects on cloth and dyestuffs. 202

11 **Lummerzheim, M. H., & Co., Wondelgem,** near Ghent, East Flanders.—Bituminous and re-asphaltic roof and ship sheathing paper, lampblack. 202

12 **Offergeld Bros., Forest, near Brussels.**—Red, brown, and chestnut iron paint. 202

13 **Planche, Edouard, Son, Laeken,** near Brussels.—Writing ink. 202

14 **Planche, Melchior, Ixelles, near** Brussels.—Writing ink. 202

15 **Singer, Max, Tournai (Hainaut).**—Aniline products for dyes extracted from coal-tar, etc. 202

16 **White Lead & Iron Paint Joint** Stock Co., Anderghem, near Brussels.—White lead, iron paint, mastics. 202

17 **Van der Velden, Leopold, Liége.**—Writing, glossing, and indelible ink, liquid glue, etc. 202

18 **Van Laer, Guillaume, Verviers.**—Dyers' practical guide, mordant processes. 203

19 **Marbaix, Auguste de, Antwerp.**—Aromatic liquor, Anvers water, essential oil, caraway essence, cedar essence, Florentine iris, and oil of cloves. 203

20 **Cooppal & Co., Wetteren, East** Flanders.—Charcoal, sulphur, powder and cartridges. 204

Ceramics—Pottery, Porcelain, Glass, etc.

23 **Seilles lez Andenne & Bouffioulx** Joint Stock Co. of Refractory Products and Plastic Clay, Seilles, near Andenne, Province of Liége.—Burnt refractory earthenware, brick for gas furnaces, etc., gas retorts, refractory plastic clay. 207

25 **Wingender Bros., Chokier, near** Liége.—White and colored clay pipes. 210

26 **Floreffe Co., Floreffe, near Namur.** —Plate glass for windows. 214

26*a* **Schmidt Brothers & Sisters, Lo**delinsart.—Window glass. 214

27 **Andris, Lambert, & Co., Mar**chienne-au-Pont, near Charleroi (Hainaut).—White window and heavy muslin glass. 214

27*a* **National Glass Works Joint Stock** Co., Jumet.—Window glass. 214

28 **Baudoux & Co., Charleroi.**—White and colored window and unpolished and corrugated muslin glass, with varicgated rosettes engraved and cut. 214

29 **Baudoux, E., & Jonet, Lodelinsart.** —Colored and fancy window glass. 214

30 **Bennert & Bivort, Jumet, near Char**leroi.—Window glass. 214

31 **Bougard, A., Le Brun, H., & Co.,** Roux, near Charleroi.—Window glass. 214

32 **Dorlodot, L. de, & Co., Lodelinsart.** —Unpolished and corrugated window glass, greenhouse, cathedral, and stained glass, old glass imitation. 214

33 **Looper, de, Haidin, & Co., Cour**celles.—Window glass. 214

34 **Dessent, J., & Bros., Jumet.**—Window glass. 214

35 **Fourcault-Frison, A., & Co., Dam**premy, near Charleroi.—Window glass. 214

36 **Hans, Octave, & Co., Jumet, near** Charleroi.—Window glass. 214

37 **Lambert, Casimir, Son, Charleroi.**—Window glass. 214

38 **Lambert, L., & Co., Hamendes** Glass Works, Jumet.—Window glass. 214

39 **Leurant, Emile, Jumet (Heigne),** near Charleroi.—Glass cylinder. 214

40 **Mondron, Leon, Lodelinsart, near** Charleroi.—Window glass. 214

41 **Monnoyer, J., & Son, Dampremy,** near Charleroi.—Window glass. 214

42 **Morel, Alphonse, Lodelinsart, near** Charleroi.—Window glass. 214

43 **Schmidt, A., & Co., L'Alliance Glass** Works, Jumet (Brulotte), near Charleroi. —Window and fluted glass. 214

44 **Schmidt, Devillez, & Co., Dam**premy, near Charleroi.—Window glass. 214

45 **Glass Works Joint Stock Co., Char**leroi.—Window glass. 214

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Glass, Furniture, Woven Goods.

46 Plate Glass Manufacturing Joint Stock Co., Courcelles, near Charleroi.—Clean polished and plated glass. 214

47 Hainaut Glass Manufacturing Joint Stock Co., Roux, near Charleroi.—Plate glass for windows, silvered glass, samples of plate glass at different stages of manufacture. 214

48 Glassware & Plate Glass Manufacturing Joint Stock Co., Brussels.—Framed plated and unplated mirrors. 214

49 Bougard, A., Manage (Hainaut).—Crystals. 216

50 Boussu, Famillereux & Blanc Misseron Glass Works Joint Stock Co., Boussu, near Mons (Hainaut).—Crystals and half crystals, dinner service, and articles for lighting. 216

Furniture and Objects of General Use in Construction and in Dwellings.

51 Demeuter, Leopold, Son, Brussels.—Furniture and hangings. 217

53 Goyers, J. A. & H., Bros., Louvain.—Pulpit in the ogive style. 217

54 Snyers, Rang, & Co., Brussels.—Carved walnut furniture, renaissance style, ebony inlaid with ivory. 217

55 Teugels, Emile, Malines, Province of Anvers.—Carved furniture, a chair of the sixteenth century, a Flemish chair of the sixteenth century. 217

56 Zech, H., Malines.—Ebony bureau, arm-chair, and book-case. 217

57 Boucneau, Leon, Schaerbeek, near Brussels.—Marble mantelpiece, Belgian mosaic marble panels for dining-room decoration, brick pavement and Belgian mosaic marble table. 217

58 Guyaux Bros., Bouffioulx, near Charleroi.—Black marble, St. Anne mantelpiece. 217

59 Lintelo, A., Brussels.—Clocks and marble slabs. 217

60 Parmentier, Gosset, & Co., Sivry (Hainaut).—Marble mantelpieces with vases and clocks. 217

61 Tainsy, F., Brussels.—Marble mantelpieces. 217

62 Brodure, Mathieu, Spa.—Painted, varnished, and gilt wooden work. 219

63 Bronfort Bros., Spa.—Painted and ornamented wooden boxes, etc. 219

64 Debrus-Leclaire (widow), Spa.—Painted and ornamented wooden boxes, etc. 219

65 Debrus, Willem Alexandre, Spa.—Wooden boxes, etc. 219

66 Krins, E., Spa.—Wood carvings. 219

67 Van Ginderdeuren, Brussels.—Wood carvings, furniture. 219

68 Costermans, Jean, Brussels.—Hearth of the Flemish renaissance. 222

69 Miedel, Dieudonné, Sombreffe, near Gembloux, Province of Namur.—A brick layer ventilator for chimneys and coal-mine pits. 222

70 Serta, G. N., Director of the State Railroad.—A plan for utilizing the heat wasted by kitchen stoves, and a heating and ventilating system for passenger railroad cars. 222

71 L'Eclair Joint Stock Co., Kessel-Loo, near Louvain (Brabant).—Match tapers. 223

72 Pas, Gerard, Brussels.—Silver, copper, and bronze household utensils. 224

74 Tremouroux, N. & J., Bros., Saint Gilles, near Brussels.—Polished, varnished, bronzed, enameled, plated, and wrought iron household utensils. 224

75 Valania, Jean, Ixelles, near Brussels.—Machines for confectioners. 224

76 Vanderrest, Guillaume, Brussels. —Machine for the manufacture of sweetmeats. 224

76a Dogny, Jean Baptiste, Brussels.—Balusters, ornaments for door panels. 227

Yarns and Woven Goods of Vegetable or Mineral Materials.

77 Baertsoen, A., & Buysse, A., Ghent.

a Cotton textile fabrics. 230

b Linen textile fabrics. 233

78 Smet, E. de, & Co., Ghent.—Thread in packages; warped, unbleached and dyed skeins. 230

79 Desmet Bros., Ghent.—Dyed, bleached, and unbleached textile fabrics. 230

80 Parmentier, Van Hoegarden & Co., Ghent.—Spun cotton, bleached and unbleached printed cotton textile fabrics. 230

81 Devos, Camille, & Brother, Court-rai.—Stuff for trowsers. 231

82 Idiers, Emile, Auderghem, near Brussels.—Spun cotton, dyed Adrianople red, etc. 231

85 Brandt, Jacques de, Alost.—Dia-pered and damasked table linen. 233

86 Declercq, Clement, Iseghem, East Flanders.—Twisted linen thread for machine and hand sewing. 233

87 Govaert Bros., Alost, East Flanders.—Canvas, sackcloth and bags for grain, guano, salt, etc. 233

88 Leirens-Eliaert of Eliaert-Cools, Alost, East Flanders.—Thread and tow for weaving, sewing thread. 233

90 Rey, senior, Brussels.—Linen fab-rics. 233

91 Sak-Volders, Joseph, Turnhout, Province of Antwerp.—Tickings for beds and awnings. 233

92 La Lys Co., Ghent.—Jute and linen thread. 233

93 Van Damme Bros., Roulers, East Flanders.—Cloth. 233

94 Van de Wynckele Bros. & Als-berge, Ghent.—Tow and linen thread bleached, at every stage. 233

95 Wilford, William, Tamise, East Flanders.—Imperial extra flax, merchant and navy canvas; combed flax and thread for its manufacture. 233

Woven and Felted Goods of Wool, etc.

96 Hauzeur-Gerard, Son, Verviers.—Carded woolen thread. 235

99 Baras-Navaux, Verviers.—Cloth and woolen stuff. 235

100 Bettonville, Clement, Hodimont, near Verviers.—Cloth and woolen stuff. 235

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Woven Goods, Silk, Clothing, Stationery.

101 Biolley, François, & Son, Verviers.—Cloth and woolen stuff. 235

102 Biolley Bros. & Co., Juslenville, near Verviers.—Cloth and woolen stuff. 235

103 Chatten, M., & Co., Dison, near Verviers.—Cloth and woolen stuff. 235

104 Delhez Bros., Dison.—Cloth and woolen stuff. 235

105 Devosse-Blaise, Dison.—Cloth and woolen stuff. 235

106 Dolne, Lekeux, & Co., Dison.—Cloth and woolen stuff. 235

107 Domken Bros., Verviers.—Cloth and woolen stuff. 235

108 Dreze, H. & J., Dison.—Cloth and woolen stuff. 235

109 Franck Bros., Dison.—Cloth and woolen stuff. 235

110 Henrion, J. J., Dison.—Cloth and woolen stuff. 235

111 Herve, Fanchamps, Verviers.—Cloth and woolen stuff. 235

112 Lecloux, G. J., Dison.—Cloth and woolen stuff. 235

113 Lejeune-Vincent, H. J., Dison.—Cloth and woolen stuff. 235

114 Olivier, J. J., & Son, Verviers.—Cloth and woolen stuff. 235

115 Peltzer & Son, Verviers.—Cloth and woolen stuff, carded woolen thread. 235

116 Simonis, Iwan, Verviers.—Cloth and woolen stuff. 235

117 Tasté, J., Verviers.—Cloth and woolen stuff, carded woolen thread. 235

118 Wihl, M., & Co., Verviers.—Cloth and woolen stuff. 235

119 Jamme, Armand, Saint Hadelin, (Nessonvaux), near Verviers.—Carded woolen thread. 235

120 Begasse, Charles, Liége.—Felt for paper manufacture, fag-end fabrics, and woolen bed blankets. 237

121 Jacobs, Poelaert, & Co., Brussels.—Woolen bed blankets. 237

122 Rolin, H., Son, & Co., Saint Nicholas, East Flanders.—Tartan shawls, thin, light cloth, tweeds, waterproofs, lady cloth, fancy cloths, etc. 237

123 Braquenié Bros., Malines.—Malines tapestry. 239

a Portrait of Rubens, panel from Gallait.
b Portrait of Cousin, in Arabian costume.
c Eight panels together, representing eight gods, from Olympus, with all their attributes, from Audran.
d Full length painting—style Louis XVI.

Silk and Silk Fabrics.

124 Fonteyn Bros., Lede, East Flanders.—Black silk goods. 245

125 Van Bellingen, Jos., Son, Antwerp.—Black silk cassimere, Antwerp silk and trimmings. 245

126 Van Bellingen, J. H., & Suremont, Max, Antwerp.—Antwerp black silk tissues. 245

Clothing, Jewelry, etc.

127 Dujardin Bros., Leuze (Hainaut).—Cotton and woolen hosiery. 250

128 Leynen-Hougaerts, J. A. H., Peer, Province of Limbourg.—Church vestments, chasuble, and various embroideries. 250

128*a* Couvreur Sisters, Brussels.—Women's dresses. 250

129 Bouhon, François, Verviers.—Wooden and other shoes. 251

131 Frenay Bros., Roclenge-sur-Geer (Limbourg).—Braids and straw hats. 251

132 Level, Leon, Brussels.—Kid gloves. 251

133 Vandenbos-Poelman, G., Ghent.—Shoes. 251

134 Watrigant, Alphonse, Brussels.—Gentlemen's, ladies', and children's shoes. 251

135 Begerem, René, Ypres.—Valenciennes lace. 252

136 Crommelinck, Courtrai.—Lace. 252

137 Dassonville, Courtrai.—Lace. 252

138 Declercq-Clement, Iseghem, East Flanders. — Common lace of twisted thread. 252

139 Des Mares, P. T., Laeken, near Brussels.—Lace. 252

140 Vergnies, O. De, & Sisters, Brussels.—Lace. 252

141 Duden Bros., Brussels.—Lace. 252

142 Everaert, Julie, & Sisters, Brussels.—White and black lace. 252

143 Bruyneel, senior, Grammont.—Black lace. 252

144 Groote, Vierendeel de, Grammont.—Black lace. 252

145 Everaert-Leclercq, Jules, Grammont.—Black lace. 252

146 Everaert Sisters, Grammont.—Black lace. 252

147 Ghys-Bruneel, Grammont.—Black lace. 252

148 Leclerq (widow), Grammont.—Black lace. 252

149 Saligo-Vandenberghe, Grammont.—Black lace. 252

150 Gillon-Steyaert, Courtrai.—Valenciennes lace. 252

151 Rectem, Jean, Brussels.—Gold embroidered picture. 252

152 Sacré, L., Brussels.—Lace. 252

153 Vandezande-Goemaere, Courtrai.—Valenciennes lace. 252

154 Verdé, Delisle Bros., & Co. (India Co.), Brussels.—Lace. 252

156 Coryn, Jules, Ghent, East Flanders.—Chignons and wigs. 254

157 Gossieaux, Félicien, Wavre (Brabant).—Hair picture. 254

157*a* Graf, Emile, Son, Liége.—Trunk. 255

Paper, Blank Books, Stationery.

158 Vandamme, Pierre Jean, Brussels.—Proofs of steel engraving for stamping with colors, illuminated with gold and silver, chromograms, and coats of arms. 258

159 Braff, Pfeffer, & Co., Ghent.—Raw material for the manufacture of paper, worked and cleaned rags, and old paper. 259

Weapons, Medical Appliances, Animal and Vegetable Products.

160 De Mesmaecker, Fr., Brussels.—Samples of bindery work. 261

161 De Tournay-Catala, Brussels.—Printing, writing, and wrapping paper, and pasteboard. 259

162 Poissonniez, Jean Baptiste, Brussels.—Cases for jewelers, confectioners, druggists, etc.; card of samples. 262

163 Daye, F., & Co., Scharbeek, near Brussels.—Pressed leather, pasteboard made from Cordoue and Malines old hides. 264

Weapons, etc.

164 Fusnot, Charles, & Co., Cureghem, near Brussels.—Cartridges for weapons of every description. 265

165 Heuse, Ernest, Nessonvaux, near Liége.—Gun-barrels. 265

166 Mairlot & Heuse, Fraipont (Liége).—Gun-barrels for warfare and export. 265

167 Bayet Bros., Liége.—Fine weapons. 269

168 Neumann Bros., Liége.—Double-barreled hunting guns. 269

169 Tambeur, Michel, Liége.—Hunting weapons. 269

Medicine, Surgery, Prothesis.

170 Depuy, Barthélémy, Brussels.—Pharmaceutical preparations, pamphlets on toxicology, pharmacy, and hygiene. 272

173 Guillery, Hippolyte, Brussels.—Sanitary report of the battle-field at Sedan in 1870; apparatus for the rapid dressing of wounds on the battle-field, etc., and for the treatment of limb fractures. 276

174 Hermant, Emile, Bruges.—Treatise on flying ambulances, model of ambulance bags adopted by the Belgian government, memoir of the military physician. 276

174*a* Buys, L., Brussels.—Car for the transport of the sick and wounded. 278

Hardware, Edge Tools, Cutlery, and Metallic Products.

175 Lambert, A. de, Liége.—Files for watchmakers and jewelers. 280

175*a* Jean, Emile de, Brussels.—Collection of iron and tools for horse-shoeing. 280

176 Constant, Emile, Monceau-sur-Sambre, near Charleroi.—Cheese-vat bolts, clamps for rails, rivets, tinkers' ware. 284

177 Demanet, Albert, Gosselies (Hainaut).—Forged nails. 284

178 Fondu, Jean Baptiste, Brussels.—Locksmiths' work, locks for vehicles, carriages, and railway cars; nickel ware used in construction. 284

179 Hoorickx, Guillaume, Brussels.—Two large chests—one representing an old-fashioned Flemish trunk, the other the present style. 284

180 Nicaise, Charles, Louvière (Hainaut).—Locomotive and other bolts, screws for locomotives, screw nuts, rivets, clamps for rails, etc. 284

180*a* Fix, A. J., Brussels.—Nails, rivets, etc. 284

181 Nicaise, Pierre & Nicolas, Marcinelle, near Charleroi.—Bolts, screw-nuts and rivets, spokes, and round-nose chisels, carriage tenders, clamps, etc. 284

182 Velings & Co., Chatelet, near Charleroi (Hainaut).—Iron wire, tacks, nails. 284

Fabrics of Vegetable, Animal, or Mineral Materials.

183 Ryckere, Edouard de, senior, Iseghem, East Flanders.—Brushes and pencils. 286

Carriages, Vehicles, and Accessories.

184 Ruytter, Charles de, Ghent.—Carriages. 292

185 Van Aken, Louis, Anvers.—Carriages. 292

AGRICULTURE.

Agricultural Products.

1 Le Bailly-D'Inghuem, Viscount Arthur John, Villeneuve, Switzerland.—Cereals cultivated in a sandy soil. 620

2 Ameye Berte, Rodolph, Ghent.—Chiccory, raw, in the pod, and manufactured. 623

5 Vandendaele-Rigot, Charles, Quiévrain (Hainault).—Ground mustard. 623

6 Delannoy, Nicholas, Tournai.—Chocolate. 623

6*a* Mottie, L., Brussels.—Tobacco and cigars. 623

7 Joveneau, Arthur, Tournai (Hainault).—Powdered cocoa and chocolate; detail of chocolate manufacture. 623

Animal and Vegetable Products.

9 Bodart, Ed., Louvain (Brabant).—Sheepskins, white leather, morocco, salted roans. 652

10 Baugniet, T., & Co., Brussels.—Crystallized blood. 652

11 Lebermuth, J., & Co., Brussels.—Waxed leather and goat skins. 652

12 Ocreman, L., & Witdoeck, E., Mechlin, province of Antwerp.—Varnished skins. 652

13 Schmitz, F. A., & Co., Koekelberg, near Brussels.—Skins for hats; manufactured morocco leather. 652

15 Versé-Spelmans, Brichot, Ant, & Co., Brussels.—Curried leather. 652

17 Remy & Co., Louvain (Brabant).—Starch and similar products. 658

20 Vandendaele-Rigot, Ch., Quiévrain (Hainault).
a Pear, apple, and beet-root syrups. 659
b Vinegar. 660

21 Charlier, John Baptist, Ghent.—Beer. 660

22 De Beukelaer, F. X., Antwerp.—Antwerp elixir, hygienic cordial. 660

23 Melkior, P. J., Brussels.—Liquors. 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Agricultural Products and Machines.

24 Schaltin, Pierry & Co., Spa.—Cordial, mineral waters, etc. 660

25 Schmidt, Emile, Schaerbeck, near Brussels.—Belgian bitters, cordial. 660

27 Bergh, van den, & Co., Antwerp.—Gin made from fine grains. 660

29 Wauters-de-Busscher, Mechlin, Province of Antwerp.—Cordials. 660

30 Damman, Edm., Borgerhout, near Antwerp.—Ship biscuit. 661

31 Couvreur Sisters, Brussels.—Confections. 661

Textile Substances of Vegetable or Animal Origin.

32 Leclercq, Henry, Courtrai.—Flax. 666

33 Taulez-Bottelier, Charles, Bruges, East Flanders.—Oakum, flax. 666

35 Müllender, S., Verviers.—Flocks of wool and shearings. 667

36 Delmotte, Hippolitus, Ghent.—White bristles. 669

Machines, Implements, and Processes of Manufacture.

37 Dassonville de Saint-Hubert, L.-Namur.—Stones for grinding grain, cements, etc. 674

38 Vandendaele, Rigot, Charles, Quievrain (Hainault).—Steam machine for manufacturing chiccory. 674

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

NETHERLANDS.

(North of Main Aisle, Columns 60 to 65.)

Chemicals, Ceramics, Furniture, Woven Goods, Silk.

Chemical Manufactures.

1 Matthes, W. E., Amsterdam.—Sulphate of ammonia. 200
2 Gorter, D. & S., Sneek.—Soap. 201
3 Willems, P. J., Schiedam.—Oils. 201
4 Sauders & Co., Leyden.—Soaps. 201
5 Henny, C. O., Deventer.—Glue. 202
6 Van Calker, P. W., Utrecht.—Glue. 202
7 Verrocy & Van Heusde, Tiel.—Dyes, turpentine, inks, wax, colors, salves. 202
8 Grootes, M., Westzaan.—Blueing. 202
9 Leur, W., Schooten, near Haarlem.—Red lead made from iron ore. 202
10 Mills, M. A.—Inks. 202
11 Vriesendorp, H. M., Dordrecht.—Oils and varnish. 202
12 Lousbergh, V., Gravenhage.—Colors. 202
13 Van den Bergh, N. L. J., Arnhem.—Cologne. 203

Ceramics—Pottery, Porcelain, Glass, etc.

14 Van Bergen, A. H., Heiligerlee, Province of Groningen.—Stone and drain tiles. 206
15 Van Henkelom, H. C., Utrecht.—Building stone. 206
17 Koolemans-Beijnen, C. G. L., Willeskop.—Architectural pottery. 206
18 Goedwaagen, P., Gouda.—Chemical stoneware and stoves. 207
19 Fontein, R., Franeker.—Roofing tiles. 208
20 Ravesteijn, H. F., Westraven.—Painted wall stone. 208
21 Bouvy, J. J. B. J., Dordrecht.—Glassware. 214

Furniture and Objects of General Use in Construction and in Dwellings.

22 Nooijen, L. J., Rotterdam.—Furniture and fancy articles. 217
23 Van Vliet, W. F., Gravenhage.—Chairs. 217
24 Lowman, J., Zwolle.—Folding screen. 217
25 Van der Lugt, Gravenhage.—Furniture and fancy articles. 217
26 Lommen, C. H., Roermond.—Painted and cut glass. 219
27 Grolman, C. W., Utrecht.—Picture frames. 220
28 Batenburg & Co., Rotterdam.—Lamps. 223
29 Cool, G. Thz., Amsterdam.—Mantels. 227

Yarns and Woven Goods of Vegetable or Mineral Materials.

31 Director of Prison, Utrecht.—Matting and rugs. 229
32 Ter Horst, J. H., Ryssen.
a Jute matting. 229
b Linen. 233
33 Arntzenius, Jannink, & Co., Goor.—Fish nets and yarn. 230
34 Hilversumsche Spinning & Weaving Manufactory, Amsterdam.—Spun and woven cotton goods. 230
35 Planteijdt, L., Krommenie.—Thread cloth and canvas. 230
36 Maas en Zonen, A. E., Scheveningen.—Fish nets. 230
37 Bottenheim, D. & S., Amsterdam.—Yarns. 230
38 Stork, C. F., Hengeloo.—Colored woven goods. 231
39 Swinkels, W., Helmond.—Yarns. 231
40 Veltman, J. A., jr., Amsterdam.—Covers and scarfs. 232
41 Veetman, J. A., Amsterdam.—Scarfs. 232
42 Elias, J., Strijp.—Table cloths, napkins, and dress goods. 233
43 Nieuwenhuizen & Van Stratum, Geldrop.—Towels, napkins, and table cloths. 233

Woven and Felted Goods of Wool, etc.

44 Tilburg Woolen Manufacturing Co.—Flannels, opera cloaks, and fancy goods. 236
45 Zaalberg, J., Leyden.—Woolen covers. 237
46 De Lange, A. G., Delft.—Imitation Smyrna rugs. 239
47 Garjeanne, A. G., Delft.—Imitation Smyrna carpets. 239
48 Royal Carpet Manufactory, Deventer.—Deventer hangings. 239
49 Prins, M., Deventer.—Artificial wool and cowhair carpets. 239
50 Van Leer, B., Amersfoort.—Hangings. 239
51 Veelo, P. J., Gravenhage.—Sofa cloths. 241

Silk and Silk Fabrics.

52 Travaglino, P. J. & W. J. P., Haarlem.—Silks. 244

Clothing, Jewelry, and Ornaments; Traveling Equipments.

54 Wienbelt, W., Deventer.—Boots. 251
55 Costermans, C., jr., Gravenhage.—Trunks, satchels, and bags. 255

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Stationery, Weapons, Medical Appliances, Hardware.

Paper, Blank Books, and Stationery.

56 Loeber, G., Amsterdam.—Stationery. 258

57 Abrahams Bros., Middleburg.—Blank books. 261

58 Simons, Ph., Gravenhage.—Bindings for maps, etc. 261

59 Cramer, H. G. D., Ootmarsum.—Pasteboard. 262

60 Van der Burgh, M., Schiedam.—Imitations of marble and wood. 264

61 Van der Burgh, A. R. & P., Rotterdam.—Imitations of marble and wood. 264

62 Rijperman, C. J. F., Velzen.—Wood painting. 264

63 Dobbe, J. P., Gravenhage.—Wood and marble painting. 264

64 Kerkhoven, R., Utrecht.—Wood and marble painting. 264

Weapons, etc.

65 Government Arm Manufactory, Delft.—Army rifle. 265

66 Betou, J. P. de, Delft.—Breechloading rifle. 265

Medicine, Surgery, Prothesis.

67 Van de Loo, J. P. H., Venlo.—Plaster and bandages. 276

68 Schokking, J. A. J., Amsterdam.—Conical tube for injections. 276

70 Krol, W., Kampen.—Plasters and bandages. 276

71 Mathijsen, A., Budel.—Plaster and bandages. 276

73 Gori, M.W.C., Amsterdam.—Water and land conveyances for sick and wounded. 278

74 Committee on Sick & Wounded Soldiers.—Work of the "Red Cross." 278

Hardware, Edge Tools, Cutlery, and Metallic Products.

75 Erdman-Schmidt, J. D., Helmond.—Cast engraving plates. 280

77 Enthoven, H. S., Zalt-Bommel.—Tinned iron kitchen utensils. 284

78 Van Heukelom, H. C., Utrecht.—Machine screws. 284

Fabrics of Vegetable, Animal, or Mineral Materials.

79 Reus, N., Pzn, Dordrecht.—House and ship brushes. 286

NETHERLANDS EAST INDIAN COLONIES.

COLLECTIVE EXHIBIT.

Minerals, Manufactures.

Minerals, Ores, Building Stones, and Mining Products.

1 Netherlands Commission.

a Gold, quicksi ver, lead, and hematite iron ores; sulphur, feldspar, quartz, porphyry, trachyte, obsidian, garnet rocks, talc, flinty schist. 100

b Coal. 101

c Marble, granite, sandstone, syenite, diorite. 102

d Limestone. 103

e Clays, chalk bamboe. 104

Metallurgical Products.

f Gold, from Soepayang. 110

g Block tin. 113

Chemical Manufactures.

h Nutmeg soaps. 201

i Indigo. 202

Ceramics—Pottery, Porcelain, etc.

j Water jug. 210

Furniture and Objects of General Use in Construction and in Dwellings.

k Table, benches, rocking chairs, footstools. 217

Yarns and Woven Goods of Vegetable or Mineral Materials.

l Mats, fabric of beaten bark. 229

l a Native cotton thread. 230

l b Native calico. 232

Clothing, Jewelry, and Ornaments; Traveling Equipments.

m Native garments of silk, cotton, etc. 250

n Native caps, headkerchiefs, plaited hats, and Chinese slippers. 251

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45

o Lace, silk embroideries, embroidered handkerchiefs, etc. 252
p Silver filigree necklace, brooches, ear-drops, and bracelets. 253
q Artificial flowers, lacquered boxes, cases, fruits, etc.; nutmeg-tree made of feathers; flower baskets, cigar cases, vases, box, native boat and sedan chair made of cloves, book mark, tortoise-shell covers, models of Malay dwelling, chapel, rice barns, baskets, tea-set of silver filigree work, etc. 254

Weapons, etc.

r Native weapons, small models of inland arms. 265
s East Indian weapons, creeses, swords, knives, sabres, head-choppers, blow pipes for arrows, arrows, and shields. (Loaned by His Majesty the King of the Netherlands.) 265

Medicine, Surgery, Prothesis.

t Alkaloids from cinchona bark, quinium, quinine, quinidine, cinchonine, cinchonidine, and cinchona powder; gum damar, catechu. 272

Hardware, Edge Tools, Cutlery, Metallic Products.

u Small models of inland tools. 280
v Rice knife. 281

Fabrics of Vegetable, Animal, or Mineral Materials.

w Ropes made of fibres of native trees and plants. 287
x Baskets, lacquered wooden box and trays. 289

Arboriculture and Forest Products.

y Cotton reels; East Indian loom; trunks, roots, barks, etc., of various species of the cinchona tree; collection of native woods; leaves, fruit, and pulp of the vegetable tallow tree; samples of bamboo. 600
z Ebony, sapan, and fustic woods. 601
aa Gutta-percha, gutta-gitang, gutta-soesoe, India-rubber, agar-agar, gum benjamin, camphor, dragon's blood, vegetable talc, etc. 603
bb Wild nuts, binamoe, langa bidjan, leadoeri flue seeds, sapo ranto, fruit, preserved wild nutmegs, etc. 605

Agricultural Products.

cc Rices, hulled, unhulled, and in the stalk; millet, dragong wheat. 620
dd Bienkoero and tarok roots. 622
ee Coffees, teas, cocoa, nutmegs, white and black peppers, mace, cloves, tobacco. 623

Land Animals.

ff Birds of Paradise.

Marine Animals, Fish Culture and Apparatus.

gg Tripang fish. 641
hh Tortoises. 643
ii Mother-of-pearl shells. 645

Animal and Vegetable Products.

jj Edible birds' nests. 650
kk Tiger skins. 652
ll Wax. 654
mm Preserved victuals. 656
nn Arrow-root, sente, ketella, red obi, tales, aren, cassava, and potato flours. 657
oo Sago. 658
pp Sugars. 659
qq Arrack. 660
rr Kajoe-poeti, Macassar, and Tekawan oils. 662

Textile Substances of Vegetable or Animal Origin.

ss Kapok (cotton), cotton. 665
tt Ramie flax, leaves, etc.; oakum; fibrous materials from trees and plants; rattan, samanboe pipit, and semanboe besar reeds. 666
uu Imitation clove-tree. 709

2 Bernelot, Moens, J. C.—Herbarium exhibiting the cinchona cultivation in Java. 721

3 Noordendorp, J., Amsterdam.—Photographs of the government cinchona establishments, and the Bouda Temple at Boro Bodor. 430

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

DENMARK.

(South of Nave, Columns 11 to 13.)

Manufactures, Education and Science.

Chemical Manufactures.

1 Aalborg Chemical Works, Aalborg.—Bicarbonate and carbonate of soda. 200

2 Holmblad, L. P., Copenhagen.—Stearine candles. 201

3 Guldberg, C. Hoegh, Copenhagen.—Varnish, and wood polished with it. 202

4 Hansen, C., Copenhagen.—Cheese rennet extract and coloring fluid; butter coloring. 202

5 Meyer & Henckel, Copenhagen.—Butter and cheese coloring, cheese rennet extract, varnishes. 202

6 Riise, A. H., St. Thomas, West Indies.—Double-distilled bay spirit and oil of bay leaves. 203

7 Odense Match Factory, Odense.—Matches. 204

Ceramics—Pottery, Porcelain, Glass, etc.

8 Hesse, Georg W., Copenhagen.—Terra-cotta vases, jugs, etc. 206

9 Ipsen's, P., widow, Copenhagen.—Terra-cotta vases, tazzas, figures, etc. 206

10 Wendrich & Son, Copenhagen.—Terra-cotta bas-reliefs, bowls, vases, etc. 206

11 Royal Porcelain Manufactory, Copenhagen.—Biscuit bas-reliefs after Thorwaldsen, exhibited by the Commissioner. 212

12 Argentine Manufactory, Copenhagen.—Porcelain covered with copper, silver, and gold. 213

Furniture and Objects of General Use in Construction and in Dwellings.

13 Hansen, C. B., Copenhagen.—Furniture. 217

14 Meidel, F., Copenhagen.—Fire-proof safes. 217

15 Christesen, V., Copenhagen.—Silverware; large table ornament of silver, representing Art, Science, and Industry; tea and coffee sets, etc. 218

16 Stenstrup, Copenhagen.—Sign painting. 227

Yarns and Woven Goods of Vegetable or Mineral Materials.

17 Ramsing, Th., Aarhuus.—Dyed linen fabrics. 233

Woven and Felted Goods of Wool and Mixtures of Wool.

18 Müller, H., Faroe Islands.—Woolen goods. 235

Clothing, Jewelry, and Ornaments; Traveling Equipments.

19 Möller, C., Copenhagen.—Waterproof oil clothing. 250

19a Sorensen, C. P., Copenhagen.—Hand-sewed black coat, waistcoat, and pantaloons. 250

20 Larsen, N. F., Copenhagen.—Gloves. 251

21 Christesen, V., Copenhagen.—Jewelry and ornaments. 253

22 Assam, H. M., Odense.—Tobacco pipes, etc. 254

23 Ovre, Mrs., Copenhagen.—Artificial flowers. 254

Paper, Blank Books, Stationery.

24 Holmblad, L. P., Copenhagen.—Playing cards. 262

25 Hansen, Carl, & Co., Ebeltoft.—Impregnated pasteboard. 262

Hardware, Edge Tools, Cutlery, and Metallic Products.

25a Engelbrecht, C., Copenhagen.—Pair of water-skates. 281

Educational Systems, Methods, and Libraries.

1 Hveisel, G., Randers.—School maps. 300

2 Simonsen, C., Copenhagen.—"Punch," an illustrated paper. 306

3 Steenberg, A., Copenhagen.—"Industridenden," an industrial paper. 306

Institutions and Organizations.

4 Browning, Georg, Copenhagen.—Ethnographical collection, products, minerals, etc., from Iceland and Faroe Islands. 312

5 Müller, H., Faroe Islands.—Collection of birds, feathers, eggs, etc. 312

6 Harboe, C., Copenhagen.—Ethnographical collection; products, minerals, etc., from Greenland. 312

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Science, Art, Machinery, Agricultural Products.

Scientific and Philosophical Instruments and Methods.

7 Bie, C., Aalborg.—Arithmometer. 321

8 Ferslew, C., & Co., Copenhagen.—Register for cars, etc. 323

Engineering, Architecture, Maps, etc.

9 The Royal Staff, Copenhagen.—Topographical maps. 335

10 Steen, C., & Son, Copenhagen.—Geographical, historical, meteorological, and other maps. 335

Soulpture.

10*a* Fjeldskov, V., Copenhagen.—Carving in wood, statuettes, medals, etc. 405
a Sailor.
b Viking.
c Crucifix.
d Peasant.
e Children.
f Friends.
g Spring.
h Thorwaldsen.
i Göethe.
j Angelo.
k H. C. Andersen.
l Oersted.

Painting.

10*b* Ferslew, C., & Co., Copenhagen.—Lithographs. 413

Industrial and Architectural Designs, etc.

10*c* Hetsch, Chr., Copenhagen.—Architectural designs. 441

Machines, Tools, and Apparatus of Mining, Metallurgy, Chemistry, and the Extractive Arts.

1 Ambrosiussen, O. P., Copenhagen.—Model of a scaffold. 503

Machines and Implements of Spinning, Weaving, Felting, and Papermaking.

2 Tullesen, P., Lyngby.—Hair-braiding machine. 524

Machines, Apparatus, and Implements used in Sewing and Making Clothing and Ornamental Objects.

3 Henriksen, H., Copenhagen.—Sewing machine. 531

Machines for Printing, Making Books, Paper-working, etc.

4 Hansen, R. Malling, Copenhagen.—The tachygraph, operated by electricity, and the type-writing ball, operated by hand. 542

Motors, Power Generators, etc.

5 Godfredsen, R., Copenhagen.—Belting, etc., for transmission of power. 553

Arboriculture and Forest Products.

1 Halkier, P. A., Copenhagen.—Timber, planks, boards, rough and finished, for buildings, etc. 603

Agricultural Products.

2 Wendt, Frantz, Roeskilde.—Rye, winter and spring wheat, barley, and oats. 620

Animal and Vegetable Products.

3 Danish Preserved Butter Co., Aarhuus.—Canned butter for export. 651

4 Heymann, P. W., Copenhagen.—Preserved butter for export, also butter which was at the Vienna Exposition in 1873. 651

5 Copenhagen Leather Manufactory, Copenhagen.—Consolidated leather soles, heels, sheets, etc. 652

6 Pork Packing Co., Copenhagen.—Lard packed in bladder. 652

7 Eriksen, C., Lyngby.
a Honey and wax. 654
b Mead. 660

8 Müller, P. A. E., Copenhagen.—Honey and wax. 654

9 Herreborg, Otto, Copenhagen—Preserved fruit, vegetables, jellies, etc. 656

10 Bröndum, A., Copenhagen.—Corn brandy and table liquor. 660

11 Aalborg Syrup & Spirit Factory, Aalborg.—Table liquor and spirit. 660

12 Anthony, F., Copenhagen.—Brandies and liquors. 660

13 Been, C. A., Copenhagen.—Liquors, etc. 660

14 Gottschalk, I. C., Holbek.—Essences. 660

16 Heering, Peter F., Copenhagen.—Cherry cordial. 660

17 Lorenzen, L., Aarhuus.—Bitter cordial. 660

18 Odin Distillery, Randers.—Corn brandy flavored with carraway seeds, table liquor, and rectified spirit. 660

19 Sabro, I. C., Randers.—Bitters, etc. 660

19*a* Farch, J., & Sons, Nibe.—Alcohol, raw spirits, and brandy. 660

20 Schucani & Wegmann, Copenhagen.—Liquors, bitters, etc. 660

21 Svanholm Brewery, Copenhagen.—Beer for export. 660

22 Ramsing, T., Aarhuus.—Chocolate. 661

Textile Substances of Vegetable or Animal Origin.

23 Müller, H., Faroe Islands.—Wool. 667

Machines, Implements, and Processes of Manufacture.

24 Schültz, Thurebyholm.—Model of milk cooler. 675

Agricultural Engineering and Administration.

25 Aalborg Chemical Works, Aalborg.—Artificial bone manure. 681

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

SWEDEN.

(North of Nave, Columns 6 to 11.)

Chemicals, Ceramics, Furniture.

Chemical Manufactures.

1 **Aseptin Amykos Stock Co.**
a Upsala Aseptin, for preservation of provisions and animal materials. 200
b Upsala amykos, used as a cosmetic. 203

2 **Bengtsson, B., Astra Torp, Trelleborg.**—Chemicals. 200

4 **Friestedt, A. W., Stockholm.**—Chemicals. 200

5 **Gullberg Stock Co. (limited), Göteborg.**—Sulphuric acid. 200

6 **Liljeholmen Stearine Manufacturing Stock Co., Stockholm.**—Stearine candles, oleine, glycerine, and stearine. 201

7 **Sjoberg, A. P., Malmö.**—Soaps. 201

8 **Werner, C. O., Stockholm.**—Bone oil. 201

14 **Strandberg, Fr. Aug., Jönkoping.**—Varnishes, ink. 202

17 **Granholm, J. P., Stockholm.**—Rectified amykos. 203

18 **Pauli F., Stockholm.**—Essences, perfumery, cosmetics. 203

21 **New Match Manufacturing Co. (limited), Stockholm.**—Safety matches. 204

22 **Berg, Gottfried Warby, Stockholm.**—Gunpowder. 204

23 **Blombacka Stock Co., Molkom.**—Safety matches and their raw materials. 204

24 **Guesta Match Manufactory, Stockholm**—Paraffined safety matches. 204

25 **Holmberg, Eric, Södertelje.**—Safety matches. 204

26 **Jönköping Match Manufacturing Co. (limited), Jönköping.**—Safety matches. 204

27 **Kreuger, P. E., & Jennings, Kalmar.**—Safety matches. 204

28 **Ellbo Göteborg Match Factory, Göteborg.**—Matches. 204

29 **Lindahl, J. F., Kalmar.**—Safety matches. 204

30 **Lover Manufacturing Co. (limited), Kalmar**—Matches. 204

31 **Norrköping Match Manufacturing Co. (limited), Norrköping.**—Safety matches and appurtenances. 204

32 **Stregnas Match Manufacturing Co. (limited), Stregnäs.**—Safety matches. 204

33 **Phœnix Match Manufacturing Co. (limited), Malmö.**—Matches. 204

34 **Vulcan Match Manufacturing Co. (limited), Göteborg.**—Matches. 204

35 **Westervik Match Factory, Westervik.**—Matches. 204

36 **Wisby Match Manufacturing Co. (limited), Wisby.**—Matches. 204

37 **Ystad Match Manufacturing Co. (limited), Ystad.**—Safety matches. 204

Ceramics—Pottery, Porcelain, Glass, etc.

39 **Helsingborgs Iron and Stone Ware Manufacturing Co. (limited), Helsingborg.**—Salt glazed clay goods. 207

40 **Höganäs Coal Mining Co., Höganäs.**
a Fire clay goods. 207
b Tiles for pavements. 208

42 **Gustafsbergs Manufacturing Co., Stockholm.**
a Architectural pottery. 206
b Faience. 210
c Biscuit ware and parian. 212
d Porcelain and Argentine. 213

43 **Rörstrands Stock Co. (limited), Stockholm.**
a Faience. 210
b Majolica and palissy ware. 211
c Biscuit ware and parian. 212
d Porcelain. 213

46 **Malmö Porcelain Manufacturing Co., Malmö.**—Porcelain for table use. 213

47 **Brusewitz, Fr., Limmared.**—Glassware. 215

48 **Reymyre Glass Factory (limited), Reymyra.**—Glassware. 215

Furniture and Objects of General Use in Construction and in Dwellings.

49 **Backman, J. F., Stockholm.**—Safe. 217

50 **Glömsta Manufacturing Co. (limited), Huddinge.**—Cottage furniture. 217

51 **Lastbom, Iven, Stockholm.**—Cupboard of birchwood. 217

52 **Peterson, C. E., Stockholm.**
a Table. 217
b Frame. 220

53 **Rambach, C. Stockholm.**—Chair. 217

54 **Rusch, P. O., Göteborg.**—Japanned furniture. 217

54*a* **Holm, F. F. W., Stockholm.**—Furniture. 217

55 **Sandberg, A. Cook, Stockholm.**—Writing chair. 217

56 **Wahlström, S. Fr., Stockholm.**—Willow furniture. 217

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Furniture, Woven Goods, Clothing, Stationery.

57 Osterberg, C. G., Jäder, Eskilstuna.—School furniture. 217

58 Bruzewitz, Fr., Limmared.—Table glass. 218

59 Goldsmiths' Stock Co. (limited), Stockholm.—Silver tankard. 218

60 Gustafsberg Manufacturing Co., Stockholm.—Table china. 218

61 Reymyre Glass Factory (limited), Reymyra.—Table glass. 218

62 Rörstrand Stock Co. (limited), Stockholm.
a Table china 218
b Stoves. 222

64 Bolinders, J. & C. G., Machine Co. (limited), Stockholm.
a Heating apparatus. 222
b Stove for smoothing-irons. 225

65 Hedengren, A. F., & Son, Eskilstuna.—Stove sets. 222

66 Eriksson, G., Eskilstuna.—Brass doors for stoves. 222

68 Moberg Machine Co., Stockholm.—Range. 222

73 Elfving, C. E., Stockholm.—Apparatus for cutting lamp wicks. 223

74 Kuntze & Co., Stockholm.—Water filters, refrigerators. 224

74*a* Kallinge Iron Works, Ronneby.—Kitchen utensils of iron and steel sheets. 224

75 Lafquist, J. A., Eskilstuna.—Smoothing-irons. 225

76 Björk, J. O., Eskilstuna.—Hardware of mollified iron. 227

77 Dickson, James, & Co., Sandarne.—Woodwork for buildings. 227

78 Essen, Baron H. H. von, Tidaholm.—Woodwork for buildings. 227

79 Hedlund, Joh., Eskiltuna.—Metal work for buildings. 227

82 Wengström, J. O., Stockholm.—Manufactured parts of buildings. 227

Yarns and Woven Goods of Vegetable or Mineral Materials.

83 Anderson, J., Kjärdingagärde, Gnosjö.—Wire and sieve cloth. 228

84 Berg, J. Th., Nääs, Floda.
a Cotton yarns. 230
b Dyed cotton yarn. 231

86 Malmö Manufacturing Co. (limited), Malmö.
a Cotton yarns. 230
b Dyed cotton fabrics. 231

87 Rosenlunds Spinning Co. (limited), Göteborg.—Cotton yarns and fabrics. 230

89 Johansson & Carlander, Göteborg.—Calicoes. 232

90 Stenburg's, G., Widow, Jönköping.—Linen fabrics. 233

Woven and Felted Goods of Wool, etc.

91 Bergsbro Stock Co., Norrköping.—Card-wool fabrics. 235

92 Drag Stock Co. (limited), Norrköping.—Card-wool fabrics. 235

93 Landskrona Manufacturing Co., Landskrona.—Card-wool fabrics. 235

94 Malmö Woolen Manufacturing Co. (limited), Malmö.—Card-wool fabrics. 235

95 Stockholm Woolen Manufacturing Co. (limited), Stockholm.—Woven and felted goods of wool. 235

Silk and Silk Fabrics.

96 Almgren, K. A., Stockholm.—Plain woven silks. 245

Clothing, Jewelry, and Ornaments; Traveling Equipments.

98 Ek, J. A., Stockholm.—Military equipments. 250

99 Fernlund, E. F., Stockholm.—Military and civil clothing. 250

100 Heurlin, G. U., & Co., Stockholm.—Military clothing. 250

101 Royal War Office, Department of Investment, Stockholm.—Complete equipment of foot and mounted soldiers; specimens of cloth, linen, etc. 250

103 Swedmark, G., Malmö.
a Leather jackets. 250
b Gloves. 251

104 Wallgren, A. R., Stockholm.—Military clothing. 250

105 Forsell, David, & Co., Stockholm.
a Hats and caps. 251
b Furs. 256

106 Jacobson & Anderson, Malmö.—Gloves. 251

107 Svanberg, C. E., Jönköping.—Shoes. 251

109 Tornberg, Olof, Göteborg.—Boots and shoes. 251

110 Odberg, C. R., Stockholm.—Hunting boots. 251

111 Peterson, C. E., Stockholm.—Embroidered portrait of Washington. 252

112 Klintberg, J. W., & Co., Wisby.—Jewelry made of petrifactions. 253

113 Anderson, J., Kjärdingagärde, Gjnosjö.—Pins. 254

114 Berg, F. J., Göteborg.—Wigs, braids, and chignons. 254

114*a* Clarborg, T. A., Stockholm.—Jewel case. 254

116 Bergström, P. N., Stockholm.—Furs. 256

118 Royal Swedish Commission, Stockholm.—Life-size figures, dressed in national costume. 257

Paper, Blank Books, Stationery.

119 Berggren, A. N., Stockholm.—Penholders of cork. 258

120 Brunell, J. E., Stockholm.—Penholders of common reed. 258

121 Klintberg, J. W., & Co., Wisby.—Letter-presses of petrifactions. 258

122 Kullgren's, C. A., Widow, Uddevalla.—Letter-presses of polished granite. 258

123 Nordström, M. S., Stockholm.—Stamps for marking on linen or paper. 258

125 Munktell, J. H., Grycksbo, Falun.
a Filtering paper. 259
b Wood pulp. 260

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Paper, Weapons, Medical Appliances, Hardware.

127 Nynäs Pasteboard Factory, Nynas, Mavida.—Pasteboard. 260

129 Lewenhaupt, Count, Sten, Wermbohl, Katrineholm.—Wood pulp, chemically prepared. 260

130 Malmö Wood Pulp Manufacturing Co. (limited), Delaryd, Elmhult.—Wood pulp, chemically prepared. 260

131 Munkedal Manufacturing Co. (limited), Uddevalla.
- *a* Wrapping, bagging, and sketching paper. 260
- *b* Building papers. 263
- *c* Wall paper. 264

132 Munksjö Paper Factory, Jönköping.—Wrapping paper. 260

133 Rosendahl Manufacturing Co., Göteborg.—Paper pulp of wood and straw, paper. 260

134 Wargöns Stock Co., Rannum.—Printing paper for newspapers. 260

135 Litografiska Stock Co., Norrköping.
- *a* Blank books, sets of account books, billheads, etc. 261
- *b* Playing cards. 262

136 Tidström, C. W., Stockholm.—Account books, portfolios. 261

137 Djupafors' Manufacturing Co. (limited), Ronneby, Djupafors.—Pasteboard; building paper. 262

138 Köhler & Co., Malmö.—Playing cards. 262

140 Munksjö Paper Mill, Jönköping.—Building paper. 263

141 Edgren, Julius, Jönköping.—Wall paper. 264

142 Kaberg, C. A., Stockholm.—Wall paper. 264

143 Mineur, C. G., Stockholm.—Wall paper, imitation of leather, and ornaments of wood pulp. 264

145 Rosell, P. A., & Co., Jönköping.—Wall paper. 264

Weapons, etc.

146 Husqvarna Arms Manufacturing Co. (limited), Jönköping.
- *a* Military small arms, muskets, and revolvers. 265
- *b* Fire arms for sporting and hunting. 269

147 Royal War Office, Artillery Department, Stockholm.
- *a* Military small arms from the royal factory at Carl Gustafs Stad. 265
- *b* Field gun with carriage, ammunition carriage, field forge. 266
- *c* Fortification ordnance with carriage and shots. 267

148 Motala Mechanical Works Co. (limited), Motala.—Hoops for guns. 266

149 Palmcrantz, Helge, Stockholm.—Mitrailleuse. 266

150 Ekman, Carl, Finspong, & De Maré, A., Ankarsrum.—Steel guns and shot. 267

151 Eskilstuna Iron Manufacturing Co. (limited), Eskilstuna.—Blades of swords, sabres, foils, and hunters' hangers. 268

153 Norrström, C. A. & C. H., Eskilstuna.—Hunting knives. 268

Medicine, Surgery, Prothesis.

154 Pitz, G., Stockholm.—Medicated gelatine. 272

155 Lamm, Axel, M., Stockholm.—Galvano-caustic apparatus, gynecological apparatus. 275

156 Royal War Office, Sanitary Department, Stockholm.—Surgical instruments for military use. 276

157 Stille, Alb., Stockholm.—Surgical instruments. 276

158 Zander, G., Stockholm.—Apparatus for mechanical gymnastics. 276

Hardware, Edge Tools, Cutlery, and Metallic Products.

159 Eskilstuna Iron Manufacturing Co. (limited).—Screw plates and hinges. 280

160 Liberg, B. & O., Rosenfors.
- *a* Edge tools. 280
- *b* Cutlery. 281

161 New File Manufactory, Eskilstuna.—Files. 280

162 Oberg, C. O., & Co., Eskilstuna.—Files. 280

163 Fagersta Iron & Steel Works, Westanfors.
- *a* Saws. 280
- *b* Nails. 284

164 Uddeholm Stock Co. (limited), Råda.
- *a* Hand tools. 280
- *b* Springs and hardware. 284

165 Engström, Joh., Eskilstuna.—Razors. 281

166 Gustafson, G., Eskilstuna.—Knives. 281

167 Halling, A., Eskilstuna.—Knives. 281

168 Heljestrand, Christoffer, Eskilstuna.—Razors, knives, and corkscrews. 281

169 Stählberg, L. F., Stählfors.—Cutlery. 281

170 Svalling, E. M., Eskilstuna.—Knives. 281

171 Söderèn, F. W., Eskilstuna.—Knives. 281

172 Hedlund, Joh., Eskilstuna.—Locks. 284

173 Jernberg, S., Eskilstuna.—Latches. 284

174 Lafqvist, J. A., Eskilstuna.—Hinges. 284

175 Lagerbäck, H., Eskilstuna.—Locks. 284

178 Stenman, F. A., Eskilstuna.—Locks. 284

179 Strandberg, J., Eskilstuna.—Brass. 284

181 Walén, Joh., Eskilstuna.—Locks. 284

182 Johnson, A. & Co., Stockholm.—Cart springs. 281

Metal, Leather, Wooden Ware.

183 Kallinge Iron Works, Ronneby.—Nails. 284

183*a* New Gellivara Co. (limited), Luleä.—Nails. 284

184 Robson, Albert, Aspa, Askersund.—Oak spikes. 284

185 Sundström, J. O., Charlottenberg.—Nails. 284

187 Wiklund, W., Stockholm.—Brass hardware. 284

Fabrics of Vegetable, Animal, or Mineral Materials.

189 Tuxen, Louis von, Stockholm.—Fabrics of patent leather. 285

190 Olsson, M., Arnäs, Lina.—Flower stand, willow chair and basket. 289

191 Kallinge Iron Works, Ronneby.—Galvanized iron vessels. 291

192 Karlskrona Galvanizing Stock Co. (limited), Karlskrona.—Galvanized sheet iron. 291

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

NORWAY.

(North of Nave, Columns 4 to 7.)

Textiles, Ceramics, Woven Goods, Clothing.

Chemical Manufactures.

1 **Bergen Gas Works, Bergen.**—Sulphate of ammonia, raw and refined. 200

1*a* **Bergen's Commercial Association, Bergen.**—Cod-liver oil. 201

2 **Borthen, J., Trondhjem.**—Medical cod-liver oil. 201

3 **Hanssen, F., Aalesund.**—Medical cod-liver oil. 201

4 **Devold, L. C., Aalesund.**—Medical cod-liver oil. 201

4*a* **Henriksen, J. H., Tromsö.**—Medical cod-liver oil. 201

5 **Jordan, C., Trondhjem.**—Medical cod-liver oil. 201

6 **Moller, Peter, Christiania.** — Cod-liver oil. 201

6*a* **Bordewick & Co., Lynzvor.**—Medical cod-liver oil. 201

7 **Steen, Daniel, Christiania.**
a Soaps. 201
b Essences, perfumery, pomades, cosmetics. 203

8 **Holmen's, G. R., Technical Works,** Fuglesang, Christiania.—Writing ink, aseptine, diamond oil blacking, grease for leather. 202

10 **Rode, C. N., Porsgrund.**—Scandinavian ink, writing and copying, dark violet copying ink. 202

11 **Pettersen, Andr., Bergen.**—Hair dressing and perfumery. 203

12 **Dons, Henrik, Christiania.**—Matches from Bryn manufactory. 204

16 **Jolsens, H., Match Manufactory,** Christiania.—Matches. 204

17 **Nitedals Match Manufactory,** Christiania.—Safety and common matches. 204

(*For fish oil, see Agricultural Catalogue, page 61.*)

Ceramics—Pottery, Porcelain, Glass, &c.

17*a* **Havnven's Works, Christiania.**—Tiles and bricks. 206

18 **Schwarzenhorn, Fr. von, Christiania.**—Painted and decorated porcelain. 213

19 **Hurdal, Biri, Hadeland & Hövik's** Glass Works.
a Window glass. 214
b Bottles. 215
c Glassware. 216

20 **Bergen's Glass Works.**—Floaters. 215

Furniture and Objects of General Use in Construction and in Dwellings.

21 **Gram, Wm., Christiania.**
a Antique bedstead and cupboards. 217
b Antique brass and copper dishes. 218
c Candlesticks. 223

22 **Holst, Chr., Head Steward to His** Majesty the King, Christiania.—Buffet chairs, antique arm chairs, peasant chairs. 217

23 **Klemetsen, Chr., Christiania.**—The fittings of the Norwegian section. 217

24 **Moestue, Thv., & Co., Christiania.**—Iron safe. 217

25 **Opsahl, P. J., Christiania.**—Iron safes. 217

28 **Drammen Foundry and Mechanical** Works, Drammen.—Stoves. 222

29 **Nord & Son, M. E., Christiania.**—Refrigerator. 224

30 **O. Jacobsen's Mechanical Works,** Christiania.—Mechanical mangle. 225

(*For stoves, see page 88.*)
(*For door-handles, see page 88.*)

Yarns and Woven Goods of Vegetable or Mineral Materials.

31 **Christiania Sail Cloth Manufactory,** Christiania.—Sail cloth, fishing yarns, etc. 230

32 **Nydalens Company, Christiania.**—Cottons, sail cloth, tissues, and yarns, fishing nets, etc. 230

34 **Eche, J. D., & Son, Bergen.**—Floor oil cloths and painted window blinds. 234

Woven and Felted Goods of Wool and Mixtures of Wool.

36 **Pettersen, Gunerius, Christiania.**—Textile domestic industry; valises. 238

Clothing, Jewelry, and Ornaments; Traveling Equipments.

40 **Falkenberg, Johs., Christiania.**—Ready-made linen. 250

41 **Næss, H. S., Christiania.**—Boots and shoes. 251

42 **Nordahl, Petter N., Christiansand.**—Boots. 251

43 **Falck-Yster, Christiania.**—Snow shoes. 251

44 **Gramm, Wm., Christiania.**
a Collection of antique and modern silver ornaments worn upon the person. 252
b National costumes from Hardanger. 252

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

45 Lie, P. A., Christiania.—Silver filigree work in Norwegian style. 253

45*a* Olsen, Th., Bergen.—Filigree silver ornaments. 253

46 Tostrup, J., Christiania.—Silver work; silver filigree work in specific Norwegian style. 253

49 Kittelsen, Jens, Christiania.—Valises. 255

50 Brandt, C., Bergen.—Furs, skins, etc. 256

51 Rustad, A. S., Drammen.—Collection of Norwegian furs. 256

Paper, Blank Books, and Stationery.

53 Haneborg, A. O., Christiania.
a Paper. 260
b Wood pulp for paper manufacturing. 263

54 Moestue, Thv., & Co., Christiania.
a Account books. 261
b Pasteboard boxes. 262

55 Christophersen, Chr., Christiania.—Wood pulp for paper manufacturing. 263

56 Frolich, F. H., & Son, Christiania.—Paper hangings and borders. 264

Military and Naval Armaments, Ordnance, Firearms, and Hunting Apparatus.

57 Gram, William, Christiania.—Antique weapons. 268

Medicine, Surgery, Prothesis.

58 Ditten, H. S., Christiania.—Aperient tonic pills, tourist pharmacies. 272

Hardware, Edge Tools, Cutlery and Metallic Products.

58*a* Bennett, T.—Cutlery and carved goods. 281

59 Michelsen, John B., Bergen.
a Cutlery. 281
b Brass goods. 283
c Carvings in wood and walrus teeth. 405

59*a* Smith, William.—Knives with carved handles. 281

60 Blunck, C., Christiania.
a Metal hollow ware, cast iron ware. 283
b Pumps. 560
c Fire engines. 564

61 Krogstad Society, Drammen.—Nails and spikes, machine-made by hot and cold process. 284

61*a* Opsahl, P. J., Christiania.—Locks. 284

(*For anchors, chains, and stoves, see page 80.*)

Fabrics of Vegetable, Animal, or Mineral Materials.

65 Fredriksvorn Rope Manufactory, Fredriksvorn.—Cordage. 287

66 Kuhne, W., Christiania.—Basket ware. 289

Carriages, Vehicles, and Accessories.

67 Heffermehl, L., Drammen.
a Carriages (kariols). 292
b Racing sledge. 295

68 Sorensen & Klovstad, Christiania.—Carriages (kariols). 292

69 Christensen, Chr., Christiania.
a Kariol. 292
b Antique sleigh. 295

70 Falck-Yster, Christiania.—Fisherman's ice sledge. 295

Motors, Power Generators, etc.

71 Gjerdrum, Otto, Christiania.—Model of self-acting smoke-consuming apparatus for boilers. 550

72 Klem Hansen & Co., Trondhjem.—Belting. 553

73 Roed Works, near Sandefjord.—Rotating steam-engine with boiler and feed-water heater. 554

Hydraulic and Pneumatic Apparatus.

74 Blunck, C., Christiania.
a Pumps. 560
b Fire-engines. 564

Aerial, Pneumatic, and Water Transportation.

75 Arentz, Hjalmar, Christiania.—Models and drawings of iron ships. 594

76 Board of Commerce, Aalesund.—Models of fishing boats. 594

77 Brandi, J., Christiania.—Drawings and models of sailing vessels. 594

78 Brunchorst & Dekke, Bergen.—Models of sailing vessels. 594

79 Gran, Jens, Bergen.—Models of sailing vessels. 594

80 Hansen, Carl A., Poresgrund.—Models and drawings of sailing vessels. 594

81 Museum of Bergen, Bergen.—Models of fishing boats. 594

82 Naval Establishment of Carl Johansværn, Horten.—Models of boats. 594

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

ITALY.

(*North of Nave, Columns 1 to 5.*)

Chemicals.

Chemical Manufactures.

1 Mineralogical Society of Naples.—Sulphurous products. 200

2 Salinella, Baron Michele, Nicosia, Catania.—Rock salt. 200

3 Musumeei, Gulli Gaetano, Catania.—Liquorice. 200

4 Giacomazzi, Favare Salvatore, Trapani.—Sea salt. 200

5 Giacomazzi, Rocco, Trapani.—Liquorice. 200

6 Martorana, Paladino S., Trapani.—Sea salt. 200

7 Mazullo, Cav. Agostino, Mandanui, Messina.—Rock salt. 200

8 Pirrone, Antonino, of Gaetano, Messina.—Liquorice. 200

9 Labonia, B. G., Naples.—Liquorice. 200

10 Romano, Gaetano, Palermo.—Salt. 200

11 Ferrino, Cesare, Turin.
a Nitrate. 200
b Colors in powder and paste. 202

12 Baroncelli, Baldassarre, Cinciano, Sienna.—Bicarbonate of potassium and sodium. 200

13 Borelli, Luigi, late Tommaso, Asti, Alexandria.—Cream of tartar, acids. 200

14 Reimandi, Giuseppe, Acqui, Alexandria.—Cream of tartar, tartaric acid. 200

15 Gentili, Grassini, late Giuseppe, Padua.—Cream of tartar. 200

16 Sbertoli, Giuseppe, late Domenico, Genoa.—Carbonate of lead. 200

17 Candiani & Biffi, Milan.—Acids and chemicals. 200

18 Emmanuele, Francesco, Catania.—Cream of tartar. 200

19 Grimaldi, Giovanni, Paterno, Sicily.—Extract of liquorice. 200

20 Pastore, Gio., late Filippo, Catania.—Juice of liquorice. 200

21 Grasso, Giuseppe, Catania.—Juice of liquorice. 200

22 Catanzaro, Giuseppe, Termini, Palermo.—Liquorice paste. 200

23 Lancia di Brolo, Duke Federigo, Palermo.—Sea salt. 200

24 Fonzo, Domenico, Catania.—Cream of tartar. 200

25 Di Mauro, Francisco, Catania.—Cream of tartar. 200

26 Scuderi, Giuseppe, Catania.—Cream of tartar, zamba. 200

27 Rampazzini, Frederico, Milan.—Sulphur and chemicals. 200

28 Solinas, Arras Giuseppe, Sassari.—Olive oil. 201

29 Oneto, Agostino, & Co., Sampierdarena, Genoa.—Soap. 201

30 Agostini Della Seta, Count Alfredo, Pisa.—Olive oil. 201

31 Cenami, Count Bartolomeo, Lucca.—Olive oil. 201

32 Mingori, Vincenzo, Lucca.—Olive oil. 201

33 Tellini, Vincenzo, Calci, Pisa.—Olive oil. 201

34 Tellini, Dario, & Co., Cascina, Pisa.—Olive oil soap. 201

35 Bonci, Casuccini Ottavio, Sienna.—Olive oil. 201

36 Contucci, Eustachio, Montepuleiano, Sienna.—Olive oil. 201

37 Lanza Bros,, Turin.—Stearine, candles, soap. 201

38 Rinaldo, Raffaele, Salerno.—Olive oil. 201

39 Guglielmini, Andrea, Salerno.—Olive oil. 201

40 Virgili, Angelo, Vacone, Perugia.—Olive oil. 201

41 Rosselli Del Turco, Pier Francesco, Florence.—Olive oil. 201

42 Capponi, Conti Bros., Florence.—Olive oil. 201

43 Alli Maccarani Claudio, Florence — Olive oil and paste of Zanza. 201

44 Corsini, Prince Tommaso, Florence.—Olive oil. 201

45 Merlini, Alfonso, & Enrico Bros., Terricinola, Pisa.—Olive oil. 201

46 Farinola, M. Paolo, Florence.—Olive oil. 201

47 Albergotti, Geo., & Agostino Bros., Arezzo.—Olive oil. 201

48 Rospigliosi, Prince Clemente, Lampovecchio, Florence.—Olive oil. 201

49 Chamber of Commerce & Arts, Sienna.—Olive oil. 201

50 Saracini, Alessandro, Sienna.—Olive oil. 201

51 Pucci, Sansedoni Aless., Sienna.—Olive oil. 201

52 Ricasoli, Baron Bettino, Florence.—Olive oil. 20

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Chemicals, Ceramics.

53 Botti, Alessandro, Chiavari, Genoa.—Olive oil. 201

54 Calamari, Pietro, Milan.—Soaps. 201

55 Gianoli Bros., Milan.—Soaps. 201

56 Giuffrida, Leotta Giovanni, Catania.—Oil of sweet almonds. 201

57 Merlo, Baron Vincenzo, Palermo.—Olive oil. 201

58 Sciacca della Scala, Baron, Palermo.—Olive oil. 201

59 Martines, Filippo, Palermo.—Olive oil. 201

60 Inguaggiato, Baron Croce, Palermo.—Olive oil. 201

61 Pacchiani, Eliseo, Passignano, Umbria.—Olive oil. 201

62 Rossi, Leopardi Cav. Cesare, Comiso, Syracuse.—Soaps. 201

63 Fazio, Domenico, Palermo.—Olive oil. 201

64 Galli, Cesare, Florence.—Olive oil. 201

65 Piacente, Francesco, Bari.—Olive oil. 201

66 Agrarian Committee for Thirty Exhibitors, Florence.—Olive oil. 201

67 Jatta, Antonio, Ruvo di Puglia.—Olive oil. 201

68 Chamber of Commerce & Arts, of Bari.—Olive oil. 201

69 Mazzullo, Cav. Luigi, Messina.—Olive oil. 201

70 Di Salvo, Salvatore, Messina.
a Olive oil. 201
b Essences. 230

71 Agrarian Committee of Chiavari.—Olive oil, soap. 201

72 Marzi Bros,, Poggibonsi, Sienna.—Olive oil. 201

73 Russo, Calogero, Termini, Palermo. Olive oil. 201

74 Favare, Marchese della, Palermo.—Olive oil. 201

75 Martillaro, Mar. Carlo, Palermo.—Olive oil. 201

76 Tucci-Savo Benedetto, Rome.—Olive oil. 201

77 Agosti Brothers, Bagnoria, Rome.—Olive oil. 201

78 Marini, Marq. Pietro, Rome.—Olive oil. 201

79 Rotali, Francesco, Rome.—Olive oil. 201

80 Isnardi, Pierre, Leghorn.—Olive oil. 201

81 Conti, E., & Sons, Leghorn.—Soaps. 201

82 Tarussi, Luigi, & Bros., Leghorn.—Olive oil. 201

83 Generois, Felice, & Sons, Naples.—Soaps. 201

84 Anselmi & Marassi, Naples.—Oils. 201

85 Rocco, Francesco, Catania.—Olive oil. 201

86 Rolando, Giacomo, Modena.—Ink. 202

87 Mora, Domenico, Turin.—Chestnut extract for dyeing. 202

88 Morandi, Pietro, Milan.—Ink. 202

89 Bassolini, Vincenzo, Milan.—Various colors. 202

90 Bonacina, Cesare, Milan.
a Varnishes, ink. 202
b Aromatic tooth paste. 203

91 Maranesi, Gaetano, & Masetti Bartolomeo, Bologna.—Ink. 202

92 Gnocchi, Giovanni, Milan.—Inks. 202

93 Scarselli, Benedetto, Rome.—Gruma, incrustation from casks. 202

94 Ghibellini Bros., S. Giovanni in Persiceto, Bologna.—Varnish. 202

95 Santi, Amantini, Adamo, Florence.—Perfumery. 203

96 Lardera, A., Milan.—Perfumery. 203

97 Cosentini & Caruso, S. Manno Marchesato, Calabria Citra.—Extract of liquorice. 203

98 Scocchiolini, Adone, Rome.—Pomatum. 203

99 Pateguazza Bros., N. & A., Rome.—Perfumery. 203

100 Bortolotti, Pietro, Bologna.—Felsina water (for the toilet). 203

101 Antonelli, Cav. Alessandro, Bologna.—Essence of lemon. 203

102 Alessi & Bonaventura, Messina.—Essences. 203

103 Alessi, Gaetano, Messina.—Essences. 203

104 Ottaviani Bros., Messina.—Essences. 203

105 Rizzuto Carmelo, Reggio-Calabria.—Essences. 203

106 De Sieto Bros., Reggio-Calabria.—Essences. 203

107 Siles, Ignazio, Reggio-Calabria.—Essences. 203

108 Lacoria, Felice, Reggio-Calabria.—Essences. 203

109 Enological & Agrarian Society of Acireale, Sicily.—Essence of lemon. 203

110 De Nava, Giuseppe di P., Reggio-Calabria.—Essences. 203

111 Mostardini, Adolfo, Florence.—Perfumery. 203

112 Melissari, Giuseppe, Florence.—Essences. 203

113 Pennise, Baron di Floristallo, Catania.—Boiled essence of lemon (agro). 203

114 Lavaggi, Francesco, Trofarello, Turin.—Matches. 204

115 Dellachi, Ambrogio, Moncalieri, Turin.—Wax and wood matches. 204

Ceramics—Pottery, Porcelain, Glass, etc.

116 Trojani, G. Batta, Florence.—Bas-relief in baked clay. 206

117 Pagliaccetti, Raffaello, Florence.—Statues in baked clay. 206

118 Stock Company for Manufacturing Bricks, Reggio, Emilia.—Bricks. 206

For classes of exhibits indicated by numbers at end of entries, see Classification, pp. 27-45.

Ceramics, Furniture, Woven Goods, Silk.

119 Tomei, Albiani Franco, Pietrasanta, Lucca.—Sample of pavements. 208

120 Pellas, Giuseppe, Florence.—Galvano-plastic ornaments. 209

121 Bertini, Emilio, Pisa.—Crockery. 210

122 Miliani, Cesare, Fabriano, Ancona.—Crockery. 210

123 Torelli, Jafet, Florence.—Crockery. 210

124 Castellani, Torquato, Rome.—Crockery. 210

125 Ferniani, Count Annibale, Faenza.—Crockery. 210

126 Crockery Society of Farina, Faenza.—Artistic crockery. 210

127 Benucci & Latti, Pesaro.—Majolica vases and dishes. 211

Furniture and Objects of General Use in Construction and in Dwellings.

128 Ammirati, Domenico, Palermo.—Chairs. 217

129 Lopez, Salvatore, Palermo.—Stone tables. 217

130 Coco, Salvatore, Palermo.—Ebony furniture. 217

131 Cavallaro, L. & G., Palermo.—Metallic beds. 217

132 Catalano, Antonio, Palermo.—Furniture. 217

133 Martinotti, Luigi, Turin.—Carved furniture. 217

134 Buzzi, Giberto Francesco, Varese, Lombardo.—Marble furniture. 217

135 Lancetti, Federigo, Perugia.—Furniture. 217

136 Elli, Luigi, Milan.—Seats for theatre. 217

137 Fava, Avo, Niccolo, Florence.—Carved walnut furniture. 217

138 Castelvedere, Luigi, Brescia.—Metal candelabra and chased dish. 218

139 Rolandi, G. Batto, Milan.—Crystals and glasses. 219

140 Grattarola, Cesare, Bologna.—Picture frames of other exhibitors' pictures. (*In Art Gallery.*) 220

141 Pontif. Oleographic Society, Bologna.—Frames. 220

142 Sarettiere, Giuseppe, Palermo.—Lamps. 223

143 Menici, Angiolo, Leghorn.—Shower bath. 226

144 Della, Casa Nicola, Baveno, Novara.—Granite cornice. 227

145 Bianchi & Molinari, Milan.—Wooden floor. 227

146 Vajani, Pietro, Milan.—Window blinds, curtains, etc. 227

147 Rizzi, Augusto, Milan.—Persian window blinds. 227

Yarns and Woven Goods of Vegetable or Mineral Materials.

148 Vecchietti, Cesare, Florence.—Green-weed (ginestro) products. 229

149 Polidori, Count Augusto, Anghiari, Arezzo.—Prepared green-weed (ginestro). 229

150 Scurati, Manzoni de G., Biella, Novara.—Skein of cotton. 230

151 Assetto di Graziani Bros., Chieri, Turin.—Cotton goods. 230

152 Madini, Augusto, & Co., Bologna.—Seamless bags. 230

153 Gentiluomi, I. V., & Co., Pisa.—Colored cotton goods. 231

154 Meda, Bernardo, Monza, Milan.—Colored calico. 232

155 Alessio Bros., Milan.—Red calico. 232

156 Special Committee of Salerno.—Linen goods. 233

157 Remaggi Bros., Navacchio, Pisa.—Linen goods. 233

Woven and Felted Goods of Wool, etc.

158 Caldara, Salvatore, Palermo.—Cloths. 235

159 Mangeri, Antonino, Messina.—Cloths. 235

160 Barbarulo Bros., Naples.—Cloths. 235

161 Radieri Bros., Gandino, Bergamo.—Felted flannel and cloth. 235

162 Barbarulo, Antonio, Peluzzano, Salerno.—Cloths. 235

163 Correction Department of Salicetо, Modena.—Cloths. 235

164 Assetto di Graziani Bros., Chieri, Turin.—Blankets. 237

165 Chapelle & Co., Turin.—Woolen blankets. 237

166 Bass, Abrate, & Co., Turin.—Blankets. 237

167 Woolen Manufactory of Borgo Sesia, Turin.—Worsted wool. 238

168 Bozzalla, Gio, & Son, Biella, Novara.—Woolen goods. 238

169 Bozzalla, Antonio, & Brother, Coggiola, Novara.—Woolen goods. 238

Silk and Silk Fabrics.

170 Keller, Alberto, Milan.
a Raw silk. 242
b Woven silk. 245

171 Chiericoni, Ugolino, Messina.—Cocoons. 242

172 Giannotti, Giuseppe, Barga (Lucca).
a Raw silk. 242
b Spun silk. 244

173 Diena, M. G., Modena.—Raw silk. 242

174 Sinigaglia, Salomon, Heir of, Lattes, Turin.
a Raw silk. 242
b Woven silk. 245

175 Franzi Bros., Alzano Maggiore, Bergamo.
a Raw silk. 242
b Woven silk. 245

176 Dalla Pozza, Filippo, Vicenza.
a Raw silk. 242
b Woven silk. 245

177 Frizzoni, Antonio F., Bergamo.
a Raw silk. 242
b Woven silk. 245

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Silk, Clothing, Jewelry, Stationery.

178 Meyer & Co., Milan.
a Raw silk. 242
b Spun silk. 244

179 Sciacca della Scala, Baron, Palermo.—Silk. 245

180 De Silvestri, Salvatore, Rome.—Silk goods. 245

181 Cagliani, Leopoldo, Milan.—Silk velvets. 247

Clothing, Jewelry and Ornaments; Traveling Equipments.

182 Morandi, G. Montepulciano, Sienna.—Dress for lady. 250

183 Incerti Anselmo, Modena.—Knit goods. 250

184 Comellini & Buratti, Bologna.—Corsets. 250

185 Marchesini, Pietro, Bologna.—Straw hats. 251

186 Ricci, Luigi, & Sons, Florence.—Straw hats. 251

187 Duranti, Agostino, Florence.—Straw hats. 251

188 Angelucci, Gerolamo, Ancona.—Shoes. 251

189 Lodi, G. Batta, Palermo.—Gloves. 251

190 Di Rosalia, Antonino, Palermo.—Shoes. 251

191 Vinci, Melchiorre, Palermo.—Shoes. 251

192 Petroli, Pietro, Pallanza.—Shoes. 251

193 Shoemakers' Co-operative Society, Bologna.—Shoes. 251

194 Baccilieri, Lorenzo, Bologna.—Gloves. 251

195 Bossi, Eduardo, Naples.—Gloves. 251

196 De Notaris, Sigismundo, Naples.—Shoes. 251

197 Calise, Tommaso, Ischia Island, Naples.—Ladies' straw hats. 251

198 Rumieri, Gabriele, Naples.—Silk and felt hats. 251

199 Casella, Giuseppe, Salerno.—Shoes. 251

200 Moiraghi, Antonio, Turin.—Shoes. 251

201 Bruzzesi, Giacinto, Milan.—Shoes. 251

202 Scarselli, Benedetto, Rome.—Straw hats and braided straw. 251

203 Taddei, Gaetano, Florence.—Straw hats and braided straw. 251

204 Straw Hat Stock Co., Pianoro, Bologna.—Straw hats and braided straw. 251

205 Santini Bros., Florence.—Straw hats and braided straw. 251

206 Working Men's Benevolent Association of Falerone.—Straw hats and braided straw. 251

207 Angeli Candido, Reggio, Emilia.—Hats and braided straw. 251

208 Kubli, Gio Giacomo, Florence.—Straw hats and braided straw. 251

209 Romani, Eugenio, & Wife, Milan.—Embroidered pictures. 252

210 Gerosa, Adele Educanda, Milan.—Embroidered pictures and handkerchief. 252

211 Stock Co. for Manufacturing Laces, Venice.—Laces, old and new styles. 252

212 Bon Regina, Como.—Laces. 252

213 Gioiuzza, Giuseppe, Naples.—Jewelry and coral. 253

214 Melillo, Giacinto, Naples.—Jewelry and coral. 253

215 Francati & Santamaria, Rome.—Jewelry. 253

216 Geraldini, Ettore, Rome.—Gold and silver jewelry. 253

217 Bellezza, Niccolo Aless, Rome.—Jewelry. 253

218 Accarisi, Giuseppe, Florence.—Roman jewelry. 253

219 Jacobini, Raffe, & Giobbe, Pio, Rome.—Old precious stones. 253

220 Ponti, Rovera, & Co., Piacenza.—Buttons. 254

221 Olivieri, Luigi, Venice.—Fancy articles. 254

222 Forte, Emilio, Genoa.—Silver filigree work. 254

223 Salvo, C., & Sons, Genoa.—Objects in filigree and gold. 254

224 Righini Bros., Turin.—Umbrella and parasol. 254

225 Labriola, Luigi, Naples.—Tortoise-shell work. 254

226 Castellani, Alessandro, Rome.—Gold and silver articles. 254

227 Brusa, G. Batta, Venice.—Album. 255

228 Rossetti, Cav. Giacomo, Brescia.—Album, with photographs. 255

229 Cavaleri, Avo. Michele, Milan.—Album and miniatures. 255

230 Leoni, Angelo, Catania.—Sicilian costumes. 257

Paper, Blank Books, Stationery.

231 Grassi, Francesco, Bologna.—Vertical letter press. 258

232 Cartiera Italiana, Turin.—Paper and envelopes. 259

233 Agosti, Agnes, Rome.—Paper embroideries. 259

234 Cattaneo, Alessandro & Bro., Bergamo.—Common paper. 260

235 Vallini, Natale, Bologna.—Paper. 260

236 Miliani, Pietro, Faleiano, Marche.—Various kinds of paper. 200

237 Fornari, Antonio G. B., Fabriano, Ancona.
a Papers. 260
b Pasteboard. 262

238 Migliaccio, Raffaelo, Salerno.—Paper. 260

239 Giordano, Scipione, Turin.—Blank form of contract for nurses. 261

240 Cassinara, Eugenio, Pavia.—Billheads. 261

241 Fagioli, Gaetano, Piacenza.—Paper boxes. 262

242 Mottura, Ing. Oreste, Piacenza.—Bricks of pasteboard. 263

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Weapons, Medical Appliances, Hardware, Vehicles, Sculpture.

Weapons, etc.

243 Comminassi Bros., Brescia.—Needle-gun barrels. 265

244 Botti, Pietro, Brescia.—Gun. 265

245 Corica, Agostino, Messina.—Shot. 265

Medicine, Surgery, Prothesis.

246 Decol, Maria, Bologna.—Decotto (a medicine). 272

247 Garau, Salvatore, Milan.—Tamarind powder; extract to prevent sea sickness. 227

248 Morreale, Ettore, Palermo.—Medicinal liquors. 272

249 Margani-Valenti, Gaetano, Niscemi, Sicily.—Medicines. 272

250 Pagliaro, Domenico, St. Stefano Camostra, Palermo.—Medicines. 272

251 Pagliaro, Andrea, Mistretta, Messina.—Medicinal gelatines. 272

252 Valentini, Gottardo, Milan.—Medicines. 272

253 Arrosto, Gioacchimo, Messina.—Citrates and medicines. 272

254 Spadaro, Grassi P., Catania.—Medicinal citrate. 272

255 Ponzoni, Luigi, Milan.—Hygienic liquors and medicine. 272

256 Menici, Angiolo, Leghorn.—Appliance for raising the sick. 276

257 Bernabei, Alessandro, Rome.—Tubes and metallic syringes. 276

258 Papini, Leopoldo, Florence.—Hernial truss. 276

259 Gramignani, Leopoldo, Ancona.—Dental prothesis. 277

260 Noel-Winderling Bros., Milan.—Dental anatomy. 277

261 Testi, Ulisse, Bologna.—Dental machines. 277

262 Sirletti, Francesco, Rome.—Sets of teeth. 277

Hardware, Edge Tools, Cutlery, and Metallic Products.

263 Guelpa-Piazza Bros., Biella, Novara.—Gimlets. 280

264 Giulivo, B., & Co., Turin.—Iron and tin knives, forks, and spoons. 281

265 Ferrino, Cesare, Turin.—Sand linen and sand paper. 282

266 Bonini, Emilio, Pignone, Florence.—Articles in zinc. 283

267 De Poli Bros., Vittorio, Treviso.—Bronze church bell. 283

268 Zalaffi, Benedetto, Sienna.—Iron work. 283

269 Parise, Achille, Sons, Naples.—Mechanical lock. 284

270 Cane, Geremia, Bologna.—Tools for umbrellas. 284

271 Namei, Giovanni, Florence.—Turned metallic articles. 284

272 Olivieri, Luigi, Venice.—Hardware. 284

273 Escoffier, Giuseppe Gio., Florence.—Mechanical articles. 284

Fabrics of Vegetable, Animal, or Mineral Materials.

274 Giacomini, Luigi, & Co., Treviso.—Brushes. 286

275 Bargioni, Ferdinando, Florence.—Ropes of rush. 287

276 Chamber of Commerce of Syracuse.—Ropes. 287

277 Rosso, Leopardo Cav. Cesare, Comiso, Syracuse.—Ropes. 287

278 Vincenzi, Paolo, Carpi, Modena.—Corks. 289

279 Marchini, Cesare, Fiesole, Florence.—Straw works. 289

Carriages, Vehicles, and Accessories.

280 Sarettiere, Giuseppe, Palermo.—Lamps for carriages. 292

281 Locati, Cav. Alessandro, Turin.—Carriages. (*In Annex.*) 292

282 Mainetti, Francesco, Milan.—Carriage (landau). (*In Annex.*) 292

Sculpture.

283 Bazzantie, Figlio, Florence.—Cupid and Psyche (group). 400

284 Porcinai, Antonio, Florence.
a Surprised (bust). 400
b Venus of Canova (statue). 400

285 Torelli, Lot, Florence.—David, by Michael Angelo (copy). 400

286 Garofoli, Oreste, Rome.
a Trasteverina (Roman costume). 400
b After the Theatre. 400
c Ciociara (Roman costume). 400
d Genzanese. 400

287 Ricci, Paolo, Florence.—Dante (statuette). 400

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

EGYPT.

(*South of South Avenue, Columns 12 to 15.*)

COLLECTIVE EXHIBIT.

Minerals, Manufactures.

Minerals, Ores, Building Stones, Mining Products.

1 National Museum.
a Rough gold-dust, petrified wood. 100
b Rough, hewn, and polished marbles, alabaster, and limestones. 102
c Crude lime rock, cement, burned lime, and plaster. 103
d Clays and materials for manufacturing porcelain and faience. 104
e Sand. 106
f Soil and water. 107

Metallurgical Products.

2 National Museum.
a Solid rough gold pieces. 110
b Iron. 111

Chemical Manufactures.

3 Laboratory of the Government.
a Chemicals of all kinds and pharmaceutical preparations. 200
b Prepared oils, solid and liquid. 201
c Flavoring extracts, solid and liquid. 203

Ceramics—Pottery, Porcelain, etc.

4 National Museum.
a Bricks from Lower Egypt. 206
b Porcelain tiles. 208
c Egyptian earthenware, from Upper Egypt. 210

5 Brugsch Bey, Cairo.
a Majolica ware in different designs. 211
b Porcelain of all kinds. 213

Furniture, and Objects of General Use in Construction and in Dwellings.

6 Parvis, Mr., Cairo.—Oriental drawing-room furniture. 217

7 National Museum.
a Table furniture of porcelain, solid gold and silver ware, coffee sets, and vessels of brass. 218
b Utensils for kitchen, and tinware. 224

Yarns and Woven Goods of Vegetable or Mineral Materials.

8 National Museum.
a Coarse fabrics of rattan, bark, palm-leaf, grass, and rushes. 229
b Cotton fabrics, unbleached, bleached, and dyed. 231
c Linen fabrics, uncolored and dyed, and linen canvas and duck for awnings and tents. 233

Woven and Felted Goods of Wool and Mixtures of Wool.

9 National Museum.
a Fabrics of wool, fancy cassimeres. 235
b Flannels. 236
c Robes. 237

10 National Museum.—Collection of Brussels carpet, Melton, and tapestry, from wool and camel's hair. 239

Silk and Silk Fabrics, and Mixtures in which Silk is the predominating material.

11 Tramontino, Mr., Cairo.—Cocoons and raw silk. 242

12 National Museum.
a Twisted silk in spools and skeins. 243
b Woven silk, lute-strings, satins, and foulards. 245
c Woven figured silk goods. 246
d Fancy silk and velvet ribbons. 248

Clothing, Jewelry and Ornaments; Traveling Equipments.

13 National Museum.
a Dress goods for men's and women's wear, with gold and silver trimmings. 250
b Hats, and boots; women's shoes embroidered in velvet, silk, gold, and silver. 251
c Silk dress trimmings and embroideries, woven with gold and silver. 252
d Turquoises, jewelry, and ornaments worn upon the person. 253
e Fancy articles, dress adornments, fans, walking-canes, sunshades, and pipes of all descriptions, with gold, silver, and silk woven ornaments, ostrich and marabout feathers. 254
f Fancy leather work. 255
g Historical collection of the national costumes from Abyssinia and the Soudan. 257

Paper, Blank Books, and Stationery.

14 National Museum.
a Stationers' articles of the Orient. 258
b Writing paper. 259

Military and Naval Armaments, Ordnance, Firearms, and Hunting Apparatus.

15 National Museum.—Swords, spears, and dirks. 261

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

16 Cassegrain, F. P., of Cairo.—Hunting firearms of a special pattern. 269

Medicine, Surgery, and Prothesis.

17 National Museum.—Medicinal plants. 272

18 National Museum of Egypt, Mr. Zucchinetti, of Cairo.—Veterinary instruments. 276

Hardware, Edge Tools, Cutlery, and Metallic Products.

19 Mechanic Institute of Boolak.—Iron hardware for different mechanical purposes. 284

Carriages, Vehicles, and Accessories.

20 National Museum of Egypt, Mr. Zucchinetti, of Cairo.—Furniture for horses and mules, harness and saddlery, ornamental mule blankets, and silk woven saddle blankets. 296

Educational Systems, Methods, and Libraries.

21 Ministry of Public Instruction.—Maps, charts, penmanship, drawings of pupils' work and course of study in water colors, from the public schools and academies. 300

22 National Museum.
- *a* Map of Egypt and the new annexed provinces made by Mr. Friederichsen. 300
- *b* Mechanical instruments executed by scholars at the Polytechnic school. 302
- *c* Text-books and apparatus. 306

23 Onsy, Mr., of Cairo.—Types and books for the education of the blind. 303

24 Ministry of Public Instruction.
- *a* College and school statistics and educational reports of Egypt. 304
- *b* Statistical reports. 305

25 Mourès & Co., Cairo, Ministry of Public Instruction.—Printed works, school and text books, and dictionary, from the public schools of Egypt; literature in the Arabic language, newspapers, and periodical literature. 306

Institutions and Organizations.

26 National Museum.—Ethnographical collection and publications. 312

Scientific and Philosophical Instruments and Methods.

27 National Museum.
- *a* Egyptian weights and measures. 322
- *b* Musical instruments from Egypt and the provinces of Soudan. 327

Engineering, Architecture, Charts, Maps, and Graphic Representations.

28 National Museum.—Maps of railways, roads, telegraphs, and postal service; topographical maps and charts. 335

Physical, Social, and Moral Condition of Man.

29 National Museum.—Collection of Egyptian gold, silver, and copper coins. 344

Sculpture.

30 National Museum.—Plaster casts from Egyptian monuments. 400

31 National Museum.
- *a* Stones with ancient Arabic inscriptions. 401
- *b* Hammered relief works in copper, and collection of plates, trays, and vases of the modern time of Egypt. 403

32 Vegis, Mr., Cairo.—Repoussé and rehaussé work in copper and iron of the ancient Arabic time. 403

33 National Museum.—Specimens of "Mousharabie" window patterns in wood and ivory, engraved wood. 405

Painting.

34 National Museum.
- *a* View of Cairo and other water-color paintings, executed by Mr. Weidenbach, Berlin. 411
- *b* Painted water-bottles. 413

Engraving and Lithography.

35 Ravon, H., Staff-officer National Museum.—Drawing in ink of the citadel of Cairo, list of the names of the caliphs and sultans who have reigned in Egypt, from Omar to Ismail Pacha, Khedive of Egypt, list of the names of Pharaohs. 420

35*a* Penasson, A., Alexandria.—Samples of lithographic printing. 423

Photography.

36 National Museum.—Collection of photographs, views of public works, costumes, scenery, panorama, and a collection of albums. 430

Industrial and Architectural Designs, Models, and Decorations.

37 National Museum.—Collection of Arabic ornaments (plaster and zinc casts, painted and gilt), from time of the caliphs, made by Schmo-ranz. 443

Decorations with Ceramic and Vitreous Materials, Mosaic and Inlaid Work.

38 National Museum.
- *a* Ancient glass lamps from the mosques. 451
- *b* Woodwork inlaid with ivory; ancient door from the sanctuary of a mosque, carved and inlaid in ivory and ebony. 452

Arboriculture and Forest Products.

39 National Museum.
- *a* Collection of woods from Egypt and the annexed provinces, cotton tree. 600
- *b* Materials for dyeing and other industrial purposes. 602

40 National Museum & Mr. Heller.—Samples of gums. 603

Agricultural Products.

41 National Museum.
- *a* Cereals. 620
- *b* Legumes—beans, lentils, etc. 621
- *c* Tuberculous alimentaries. 622
- *d* Tobacco. 623
- *e* Cotton seeds. 624

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Animal and Vegetable Products, Textile Substances.

Water Animals, Fish Culture and Apparatus.

42 National Museum.

a Crocodiles. 640
b Pearls. 645

Animal and Vegetable Products.

43 National Museum.

a Samples of butter. 651
i Samples of grease, colored hides, skins, collection of hippopotamus and rhinoceros horns, tusks of elephants and hippopotami. 652
c Ostrich eggs and feathers. 653
d Edible pulps, seeds, fruits, pastes, and confections, dried fruits and vegetables. 656
e Flour and rice. 657
f Starches. 658
g Sacchariculture. 659
h Wines, alcohol, rum, and vinegar. 660
i Biscuits. 661

Textile Substances of Vegetable or Animal Origin.

44 Estate of the Khedive.—Collection of over 2000 cotton samples, representing the crops of eight years, with classification and price of sale in Egypt and England. 665

45 National Museum.—Textile fibres, raw and manufactured, cords and ropes, flax. 666

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

TUNIS.

(*South of South Avenue, Columns 10 to 14.*)

COLLECTIVE EXHIBIT.

Manufactures, Education and Science, Art.

Minerals, Ores, Stones, Mining Products.

1 His Highness Sidi Mohammed Essadok, Bey of Tunis.—Minerals and ores of Tunis. 100

Chemical Manufactures.

2 His Highness Sidi Mohammed Essadok, Bey of Tunis.—Essences and flavoring extracts. 203

Ceramics—Pottery, Porcelain, Glass, etc.

3 Valensi, M., Tunis and Paris.—Pottery. 206

3*a* His Highness Sidi Mohammed Essadok, Bey of Tunis.
a Pottery. 206
b Earthenware. 210

Furniture and Objects of General Use in Construction and in Dwellings.

4 Valensi, M., Tunis and Paris.
a Inlaid furniture. 217
b Brackets. 220

5 His Highness Sidi Mohammed Essadok, Bey of Tunis.
a Inlaid and household furniture. 217
b Gilt brackets. 220

Woven and Felted Goods of Wool and Mixtures of Wool.

6 His Highness Sidi Mohammed Essadok, Bey of Tunis.
a Woolen blankets, shawls. 237
b Carpets, rugs. 239

7 Valensi, M., Tunis and Paris.
a Shawls. 237
b Carpets and rugs. 239

Silk and Silk Fabrics, and Mixtures in which Silk is the predominating material.

8 His Highness Sidi Mohammed Essadok, Bey of Tunis.
a Woven silks. 245
b Hangings. 246

9 Valensi, M., Tunis and Paris.
a Woven silks. 245
b Hangings. 246

Clothing, Jewelry, and Ornaments; Traveling Equipments.

10 His Highness Sidi Mohammed Essadok, Bey of Tunis.
a Burnous. 250
b Embroideries. 252
c Jewelry. 253
d National costumes. 257

11 Valensi, M., Tunis and Paris.
a Jewelry. 253
b Oriental manufactures generally. 254
c Tunisian costumes. 257

Military and Naval Armaments, Ordnance, Firearms, and Hunting Apparatus.

12 His Highness Sidi Mohammed Essadok, Bey of Tunis.—Ancient and modern arms. 265

13 Valensi, M., Tunis and Paris.—Arms. 265

Carriages, Vehicles, and Accessories.

14 His Highness Sidi Mohammed Essadok, Bey of Tunis.—Saddlery; furniture and accoutrements for horses, mules, and camels; ornamental horse and mule saddles and bridles. 296

Scientific and Philosophical Instruments and Methods.

15 Valensi, M., Tunis and Paris.—Musical instruments. 327

Ceramic Decorations, Mosaics, etc.

16 Ancient mosaics from Carthage. 450

Physical, Social, and Moral Condition of Man.

17 His Highness Sidi Mohammed Essadok, Bey of Tunis.—Two Arab tents, exhibiting the domestic life and customs of Arab sheiks and Bedouins; farming implements of Arabs. (*In Park.*) 342

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

ORANGE FREE STATE.

(*South of South Avenue, Columns 2 to 5.*)

COLLECTIVE GOVERNMENT EXHIBIT.

Minerals, Clothing, Animal and Vegetable Products.

a Diamonds in the rough, from the diamond fields of the Orange Free State. 100
b Diamondiferous soil, with a diamond in it. 100
c Copper and iron ore, chlorsastrolite, and magnesita. 100
d Coal. 101
e Pebbles accompanying the diamond. 102
f Kaolin. 104
g Springbuck mats. 239
h Angora, blesbuck, and jackal karosses. 239
i Boots of native manufacture. 251
j Pipes of native manufacture. 254
k Baskets of native manufacture. 289
l Harnesses and whips. 296
m Figures in wood, cut with a penknife. 405
n Blue gum, olive, and thorn woods. 600
o Petrified wood. 600
p Sumach. 602
q Cream of tartar fruit. 611
r Wheat, mealies, and Kaffir corn. 620
s Stuffed birds. 635
t Butterflies and other insects. 638
u Tusks of ivory. 652
v Gemsbuck, roorbuck, rietbuck, and hartebeeste horns. 652
w Koodoo cow hides. 652
x Blesbuck skins. 652
y Hartebeeste and blesbuck skins, tanned. 652
z Shambucks, long and short. 652
aa Rhinoceros hide flexible rods, reins, thongs, and girdles. 652
bb Whips of giraffe hide. 652
cc Ostrich feathers and eggs. 653
dd Bird plumage, natural. 653
ee Dried fruit. 656
ff Mealie meal. 657
gg Wool, washed and unwashed. 667
hh Mohair of Angora goat. 669
ii Model of transport wagon. 682

GRAND DUCHY OF LUXEMBURG.

COLLECTIVE EXHIBIT.

Ceramics, Clothing, Animal and Vegetable Products.

Ceramics—Pottery, Porcelain, Glass, etc.

1 Utschneider & Jaunez, Wasserbillig.—Cement products of Wasserbillig. 206

Clothing, Jewelry, and Ornaments; Traveling Equipments.

2 Charles, Auguste, & Co., Bonnevoie, near Luxemburg.—Kid gloves. 251
3 Mayer, Gabriel, Luxemburg.—Kid gloves. 251
4 Boot Manufactory of Luxemburg.—Boots and shoes. 251

Animal and Vegetable Products.

4*a* Charles, Auguste, & Co., Bonnevoie, near Luxemburg.—Tanned and dyed kid skins. 652
5 Michaelis, Frederic, Luxemburg.—Concentrated vinegar. 660
6 Pauly, Bouthon, & Co., Distillery Vinegar Manufactory.—Concentrated vinegar. 660
7 Eichhorn, Gustav, Wormeldang.—Moselle wines. 66c

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

CHINA.

(South of South Avenue, Columns 5 ty 11.)

COLLECTIVE EXHIBIT.

Minerals, Manufactures.

Minerals, Ores, Stone, Mining Products.

1 Harman, G., Swatow.—Petrifaction. 100

2 Imperial Maritime Customs.
a Coal. 101
b Granite stones. 102
c Borax. 104
d Gypsum. 107

Metallurgical Products.

3 Imperial Maritime Customs.
a Silver leaf and imitation of gold leaf. 110
b Steel. 111
c Tin foil. 113

Chemical Manufactures.

4 Imperial Maritime Customs.
a Various seed, vegetable, and wood oils. 201
b Varnish, indigo, and sundry other dyes and colors. 202
c Sauce. 203

Ceramics—Pottery, Porcelain, Glass, etc.

5 Imperial Maritime Customs.
a Bricks. 206
b Roof tiles. 208
c Collection of earthenware. 210

6 Tack Loong, Canton.
a Earthenware ornaments, figures, etc. 210
b Porcelain vases, flower-pots, tea set, cigar holders, etc. 213

7 Bean & Jardine, Kiukiang.—Porcelain vases, flower-pots, cups, etc. 213

8 Fow Loong, Canton.—Porcelain vases, dinner service, etc. 213

9 Hö Kan Cheu, Shanghai.—Collection of old china. 213

10 Hu Kwang, Yung Hang Chow.—Collection of old china porcelain. 213

11 Imperial Maritime Customs, Canton.—Porcelain vases, dinner, dessert, tea, and toilet sets, flower-pots, candle-holders, bowls, cuspadors, etc. 213

12 Imperial Maritime Customs, Kiukiang.—Porcelain vases, cups, and bowls; plates, teapots, etc. 213

13 Imperial Maritime Customs, Shanghai.—Collection of old china. 213

14 Kopsch, H., Kiukiang.—Porcelain vases, cups, bottles, cups and plates, dessert dishes, goblets, etc. 213

15 Lovatt, W. N., Kiukiang.—Porcelain vases, flower-pots, garden seats, teacups, dessert dishes, goblets, etc. 213

16 Moore, C. F., Kiukiang.—Porcelain teapots, bottles, flower-pots, ornaments, etc. 213

17 Rose, S. C., Kiukiang.—Porcelain vases, flower-pots, jars, plates, dishes, cups, dinner sets, etc. 213

18 Tong Chock-hing, Kiukiang.—Porcelain vases, ornaments, dessert service, etc. 213

19 Toin Peh Mei, Kiukiang.—Porcelain vases, teacups, fruit stands, dinner sets, and screen. 213

20 Wadman, E., Ningpo.—Collection of old china vases. 213

Furniture and Objects of General Use in Construction and in Dwellings.

21 Fow Loong, Canton.—Blackwood furniture—tables, sofas, chairs, screens, cabinets, etc. 217

22 Imperial Maritime Customs, Canton.
a Blackwood, bamboo, rattan, and lacquered furniture. 217
b Rattan cradle, and children's chairs. 221
c Different kinds of lanterns. 223

23 Kopsch, H., Kiukiang.—Screens. 217

24 Lien Shing, Canton.—Lacquered furniture, chairs, and blackwood screens. 217

25 Sung Sing Kung, Ningpo.
a Carved furniture—beds, chairs, tables, bookcases, cabinets, etc. 217
b Carved picture and photograph frames. 220

26 Imperial MaritimeCustoms, Ningpo.
a Teakettles and dishes. 224
b Washbasins. 226

Yarns and Woven Goods of Vegetable or Mineral Materials.

27 Fergusson & Co., Chefoo.—Samples of straw braid 229

28 Imperial Maritime Customs.
a Samples of grass cloth, rattan and coir matting, etc. 229
b Plain cotton fabrics. 230
c Printed cotton fabrics. 232
d Hemp cloth. 233

Woven and Felted Goods of Wool, etc.

29 Imperial Maritime Customs.—Felt rugs. 239

Silk and Silk Fabrics.

30 Fergusson & Co., Chefoo.
a Raw silk. 242
b Plain woven silks. 245

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Manufactures, Education and Science, Art, Agriculture.

31 Imperial Maritime Customs, Shanghai.—Collection of reeled and re-reeled silks. 242

32 Hö Kan-cheu, Shanghai.—Plain woven silks. 245

33 Hu Kwang-Yung, Hangchow.—Plain woven silks. 245

34 Imperial Maritime Customs.
- *a* Plain woven silks. 245
- *b* Figured silk piece goods. 246
- *c* Embroidered silk scarfs. 247

35 Fergusson & Co., Chefoo.—Figured silk piece goods. 246

36 Hö Kan-cheu, Shanghai.—Figured silk piece goods. 246

37 Hu Kwang-Yung, Hangchow.—Figured silk piece goods. 246

38 Wu, Shanghai.—Soochow gauzes. 247

Clothing, Jewelry, and Ornaments; Traveling Equipments.

39 Imperial Maritime Customs.
- *a* Stockings. 250
- *b* Shoes, hats, caps, etc. 251
- *c* Fans, small articles of dress, pipes, smoking apparatus, etc. 254

40 Imperial Maritime Customs, Canton.—Collection of silk embroidered goods, shawls, slippers, and caps, bed and cushion covers, cloth, etc. 252

41 Sisters of Charity, Ningpo.—Embroideries. 252

42 Sung Sing Kung, Ningpo.—Satin embroideries. 252

43 Lien Shing, Canton.
- *a* Jewelry. 253
- *b* Fans and hand screens. 254

44 Moore, C. F., Kiukiang.—Jewelry and ornaments. 253

45 Ho A Ching, Canton.—Carved fans. 254

46 Imperial Maritime Customs, Niuchwang.—Collection of furs and skins. 255

47 Imperial Maritime Customs, Shanghai.—Fancy leather work, trunks, and toilet boxes. 255

Paper, Blank Books, and Stationery.

48 Imperial Maritime Customs.
- *a* Paper, knives, ink, pens, etc. 258
- *b* Writing paper. 259
- *c* Oiled and pith paper. 260
- *d* Various colored paper. 264

49 Tong Chou Hing, Kiukiang.—Ink. 259

Medicine, Surgery, Prothesis.

50 Imperial Maritime Customs.—Collection of medicines, officinal and unofficinal. 272

Hardware, Edge Tools, Cutlery, Metallic Products.

51 Ho Kan Cheu, Shanghai.—Collection of old bronzes, vases, urns, etc. 283

52 Hu Kwang-Yung, Hangchow.—Collection of old bronzes, vases, urns, etc. 283

53 Imperial Maritime Customs.—Pewter ware, tea canisters, cups, pots, mugs, boxes, candlesticks, etc. 283

54 Imperial Maritime Customs, Shanghai.—Collection of old bronzes, vases, urns, etc. 283

55 Wadman, E., Ningpo.—Collection of old bronzes, vases, urns, etc. 283

Fabrics of Vegetable, Animal, or Mineral Materials.

56 Imperial Maritime Customs.
- *a* Cord, rope, twine, etc. 287
- *b* Lacquer, rattan, and bamboo ware. 289

57 Ho A Ching, Canton.—Lacquer ware. 289

58 Lien Shing, Canton.—Lacquer and sandalwood ware. 289

Scientific and Philosophical Instruments and Methods.

59 Imperial Maritime Customs.—Collection of musical instruments. 327

Physical, Social, and Moral Condition of Man.

60 The Protestant Missionaries in China.—Publications. 348

Sculpture.

61 Grimm, B., Shanghai.—Collection of coins and medals. 401

62 Ho A Ching, Canton.—Carved ivory ware. 405

63 Imperial Maritime Customs, Canton.—Carved ivory and tortoise shell ware. 405

64 Lien Shing, Canton.—Carved ivory ware, etc. 405

65 Moore, C. F., Kiukiang.—Carved figure. 405

Paintings.

66 Hippisley, A. E., Shanghai.—Water-color paintings on silk, for screens, painted by Wang Kieu-ting. 411

67 Imperial Maritime Customs.—Collection of ancient water-color paintings on silk and paper; pictures on pith paper. 411

Ceramic Decorations, Mosaics, etc.

68 Vo Chon, Canton.
- *a* Two cloisonné brass incense burners. 452
- *b* Bronze vases, incense burners, plates, etc. 454

69 Moore, C. F., Kiukiang.—Enamel vase and bowl, idols, jade plate. 454

Arboriculture and Forest Products.

71 Imperial Maritime Customs.
- *a* Specimens of timber. 600
- *b* Gallnuts and dyestuff. 602
- *c* Camphor. 603
- *d* Moss and fungus. 604
- *e* Collection of nuts and seeds. 605

72 Fergusson & Co., Chefoo.—Red dyestuff. 602

Agricultural Products.

73 Fergusson & Co., Chefoo.
- *a* Peas and beans. 620
- *b* Tobacco. 623

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Agricultural, Animal, Vegetable Products.

74 Imperial Maritime Customs.
- *a* Cereals. 620
- *b* Leguminous plants. 621
- *c* Ginger. 622
- *d* Tobacco and opium. 623
- *e* Seeds. 624

75 Imperial Maritime Customs, Shanghai.—Collection of teas. 623

Water Animals, Fish Culture and Apparatus.

76 Imperial Maritime Customs.
- *a* Dried fish. 642
- *b* Clams, dried. 644
- *c* Fish glue and sea blubber. 646
- *d* Instruments and apparatus of fishing. 647

77 Imperial Maritime Customs, Tamsui.—Collection of sea shells. 645

Animal and Vegetable Products.

78 Imperial Maritime Customs.
- *a* Seaweed. 650
- *b* Leather, furs, skins, tallow, glue, etc. 652
- *c* Honey and wax. 654
- *d* Dried fruit. 656
- *e* Flour. 657
- *f* Vermicelli, maccaroni, starch, etc. 658
- *g* Sugar, etc. 659
- *h* Wines, etc. 660
- *i* Vegetable tallow and oil. 662

79 Fergusson & Co., Chefoo.
- *a* Bean cakes. 657
- *b* Vermicelli. 658

Textile Substances of Vegetable or Animal Origin.

80 Imperial Maritime Customs.
- *a* Cotton. 665
- *b* Hemp, coir, etc. 666
- *c* Wool. 667
- *d* Hair. 669

81 Fergusson & Co., Chefoo.—Sample of hemp. 666

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45

JAPAN.

(South of Nave, Columns 5 to 11.)

COLLECTIVE EXHIBIT.

Minerals, Chemicals, Ceramics.

Minerals, Ores, Stone, Mining Products.

1 Kaitakushi, Department for the colonization of the Island of Hokkaido.—Minerals and geological collection from Hokkaido. 100

2 Kozanriyo, Mining Department, Tokio.
a Ores. 100
b Coals and anthracite. 101

3 Seki-yu Kuwaisha Petroleum Co., Tokio.—Mineral oils, crude and refined. 101

4 Hashimoto, S., Tokio.—Building stones. 102

5 Oyama, K., Chichibu, Province of Musashi.—Limestone and quick lime. 103

6 Hattori, C., Tokio.—Mortars. 103

7 Kuwangiyo-Riyo, Imperial Board of Agriculture, Industry, & Commerce, Tokio.—Clay, chinastone, kaolin, etc. 104

8 Chemical Laboratory of the City of Kiyoto.—Natural carbonated water. 107

9 Yeisei-Kiyoku, Board of Public Health, Tokio.—Mineral water statistics. 107

Chemical Manufactures.

10 Chemical Laboratory of the City of Kiyoto.—Pharmaceutical preparations. 200

11 Kuwangiyo-Riyo, Imperial Board of Agriculture, Industry, & Commerce, Tokio.—Vegetable oils, wax candles, etc. 201

12 Matsu-zaki, S., Yorita, Y., & Kondo, M., Tokio.—Soap. 201

13 Koshima, J., Tokio.—Shark liver oil. 201

14 Kiriu-Kosho-Kuwaisha, First Japanese Manufacturing & Trading Co., Tokio.—Japanese and Chinese ink. 202

15 Wada, Y., Tokio.—Indigo and specimens of dyed silk. 202

Ceramics—Pottery, Porcelain, etc.

16 Kobu-sho, Department of Public Works Tokio.—Bricks. 206

17 Nakashima, R., Kagoshima, Province of Satsuma.—Vases, jars, tea sets, and ornamental pieces. 210

18 Kashiu, Sampei, Igano-Mura, Province of Awaji.—Vases, coffee and tea sets, candlesticks, etc. 210

19 Minoda, Ch., Tokio.—Ancient pottery and ornaments. 210

20 Miyagawa, T., Ota, near Yokohama.—Vases, censers, etc. 210

21 Susuki, Y., Yokohama.—Earthenware. 210

22 Shitomi Sohei, Yokka-ichi, Province of Ise.—Banko ware, vases, tea pots, etc. 213

23 Mori, Y., Yokka-ichi, Province of Ise.—Banko ware, vases, tea pots, bowls, etc. 213

24 Nakayama, M., Kuwana, Province of Ise.—Vases, cake boxes, and dishes. 213

25 Kato Gosuke, Tajimimura, Province of Mino.—Cups, covered bowls, flower pots, etc. 213

26 Fukihara, S., Tokio.—Cloisonné enamel on porcelain. 213

27 Koran-Sha Porcelain Manufactory, Arita, Province of Hizen.—Cups and flower vases, pedestals, tea and coffee services, etc. 213

28 Chaki-Shosha, Tea Set Manufactory, Kiyoto.—Tea pots, cups, jars, etc. 213

29 Tanzan Seikai, Kiyoto.—Vases, flower pots, dinner sets, jewel cases, photographs on porcelain, etc. 213

30 Kinkozan-Sobei, Kiyoto.—Vases, flower pots, plates, jewel cases, etc. 213

31 Takahashi, Dohachi, Kiyoto.—Vases, dishes, flower pots, etc. 213

32 Shimidzu Rokubei, Kiyoto.—Tarzas, vases, jars, sets, etc. 213

33 Kanzan Denshichi, Kiyoto.—Tea and coffee sets, incense cases, pitchers, and tablets. 213

34 Wage Kitei, Kiyoto.—Cigar stands, vases, basins, etc. 213

35 Mashimidzu Zoroku, Kiyoto.—Vases, flower pots, and dishes. 213

36 Shimidzu Shichibei, Kiyoto.—Tea and coffee cups and saucers, milk jugs, and sugar bowls. 213

37 Shimidzu Kameshichi, Kiyoto.—Tea and coffee sets. 213

38 Yeiraku, Z., Kiyoto.—Bowls, flower vases and pots, egg cups, jewel cases, etc. 213

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Ceramics, Furniture, Woven Goods.

39 Tsuji, Ch., Kiyoto.—Toilet services. 213

40 Taizan Yohei, Kiyoto.—Tea sets, tazzas, etc. 213

41 Seifu Yohei, Kiyoto.—Vases, flower pots, bowls, etc. 213

42 Wateya, G., Kanazawa, Province of Kaga.—Coffee and tea sets, tea jars, cake boxes, and tazzas. 213

43 Yoshida, Y., Kanazawa, Province of Kaga.—Large bowls 213

44 Awo, P., Kanazawa, Province of Kaga.—Vases, tea and coffee cups, bowls, etc. 213

45 Hekizan, T., Kanazama, Province of Kaga.—Vases, cups, bowls, etc. 213

46 Seikan, S., Kanazawa, Province of Kaga.—Tea jars and coffee sets. 213

47 Kachoken, A., Kanazawa, Province of Kaga.—Flower vases and cake boxes. 213

48 Shoza, T., Kanazawa, Province of Kaga.—Coffee cups, flower pots, etc. 213

49 Setzuzan, A., Kanazawa, Province of Kaga.—Coffee and tea cups, teapots, and vases. 213

50 Haruna, S., Kanazawa, Province of Kaga.—Cake boxes, lamp vases, coffee and dinner sets. 213

51 Muneaki, Kanazawa, Province of Kaga.—Coffee sets. 213

52 Utsumi, K., Kanazawa, Province of Kaga.—Cups, vases, cake boxes, etc. 213

53 Yamakishi, Kanazawa, Province of Kaga.—Bowls, coffee cups, etc. 213

54 Chiuji, Kanazawa, Province of Kaga.—Coffee and tea pots. 213

55 Sekitei, I., Kanazawa, Province of Kaga.—Teapots, lamp vases, etc. 213

56 Kaga Association for the Encouragement of Manufactures.—Bowls, coffee cups, vases, etc. 213

57 Shinoda, K., Province of Kaga.—Flower vases, cigar stands, etc. 213

58 Hiyochiyen-sha, Manufactory of Painted Porcelain, Tokio.—Flower pots and vases, coffee and tea sets, dishes, tables, and ornaments. 213

59 Shippo-Kuwaisha, Cloisonné Enamel Manufactory, Nagoya, Province of Owari.—Enamel on porcelain. 213

60 Makudzu Kozan, Ota.—Flower and lamp vases, coffee sets, etc. 213

61 Minoda, Ch., Tokio.—Old and new porcelain. 213

62 Kawamoto Masukichi, Nagoya, Province of Owari.—Tables, vases, and flower pots. 213

63 Kiriu-Kosho-Kuwaisha, First Japanese Manufacturing & Trading Co., Tokio.—Ancient pottery and porcelain. 213

63*a* Iida, T., Nagoya, Province of Owari.—Porcelain flower vases and pots, plates, fruit dishes, pitchers, ladles, bowls, tea services, tables, braziers, etc. 213

Furniture and Objects of General Use in Construction and in Dwellings.

64 Kuwangiyo-Riyo-Shi-ken-jo, Experimental Section of the Board of Agriculture, Industry, & Commerce, Tokio.—Cabinets and toilet table. 217

65 Arai, H., Tokio.—Lacquered furniture. 217

66 Kiriu-Kosho-Kuwaisha, First Japanese Manufacturing & Trading Co., Tokio.
- *a* Bureaus, tables, etc. 217
- *b* Silver tea sets, etc. 218
- *c* Blinds and screens. 227

67 Minoda, Ch., Tokio.
- *a* Bureau, toilet tables, etagères, etc. 217
- *b* Silver tea kettle. 218
- *c* Bath tub and accessories. 226

68 Yamamoto, Y., Shizuoka, Province of Suruga.—Lacquered furniture, screens etc. 217

69 Shikki-Shosha, Lacquered Ware Manufactory, Kiyoto.—Lacquered furniture, etc. 217

70 Kikuchi-Kuhei, Tokio.—Hat racks, chairs, etc. 217

71 Ota, M., Tokio.—Furniture and cabinet work. 217

72 Chaki-Shosha, Kiyoto.—Tea services, etc. 218

73 Iwahashi, K., Kuroimura, Province of Kii.—Lacquered ware for household use. 218

74 Awoumi, G., Hiromai, Province of Mutzu.—Lacquered utensils. 218

75 Fujisawa, H., Osaka.—Lacquered lunch boxes and trays. 218

76 Ishioka, S., Noshiro, Province of Ugo.—Trays, boxes, dishes, tables, etc. 218

77 Kimura, H., Kiyoto.—Table ware. 218

78 Hirai Ikkan, Kiyoto.—Coffee sets. 218

79 Asano, T., Kiyoto.—Lacquered vases. 218

80 Nakamura, H., Kiyoto.—Bowls, trays, etc. 218

81 Uyemura, S., Tsuruga, Province of Yechizen.—Lacquered ware. 218

82 Riukiu-han, the island of Loochoo.—Lacquered plates, bowls, etc. 218

83 Kuwangiyo-Riyo, Imperial Board of Agriculture, Industry, & Commerce, Tokio.
- *a* Lanterns. 223
- *b* Iron utensils, kettles, etc. 224

Yarns and Woven Goods of Vegetable or Mineral Materials.

86 Kuwangiyo-Riyo, Imperial Board of Agriculture, Industry, & Commerce, Tokio.—Mats. 229

87 Sakaiken, Local Government of.—Cotton cloths, yarns, etc. 230

88 Ono, G., Naniwamura, Province of Settsu.—Cotton cloths. 230

89 Riu-kiu-han, Loochoo Islands.
- *a* White cotton cloths. 230
- *b* Striped cotton cloths. 231
- *c* Ramie and fibre cloths. 233

90 Kawamura, Y., Province of Owari.—Cotton cloths dyed and spotted. 231

91 Osaka fu, Municipality of, Osaka.—Cotton rugs. 231

92 Miye-ken, Local Government of.—Cotton gauze. 231

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

93 Association for Women's Work, Kiyoto.—Cotton rugs. 231

94 Fuji-Kawa, G., Kiyoto.—Printed cotton cloth. 231

95 Watanabe, S., Shiro-ishi, Province of Iwaki.—Shifu cloth, paper yarn. 233

96 Ni-i-gata-ken, Local Government of.—Ramie cloth. 233

97 Nara-ken, Local Government of.—Hemp cloth. 233

Silks and Silk Fabrics.

98 Yoyan-jo, Silk-Worm Breeding Establishment, Kiyoto.—Raw silks. 242

99 Sci-shi-jo, Silk Reeling Establishment, Kiyoto.—Raw silks. 242

100 Association for Women's Work, Kiyoto.
a Raw silks. 242
b Dress silks. 245
c Cravats. 245

101 Kojima, T., Kiyoto.—Silk thread. 242

102 Suzuki, Yo, Yamura, Province of Kai.
a Dress silks. 245
b Handkerchiefs. 247

103 Tsurugaken, Local Government of.—White dress silk. 245

104 Yehara, T., Kiriu, Province of Kotsuke.—Dress silk. 245

105 Yamamoto Kinu, Ousakamura, Province of Shinano.—Bombyx sho-chin silk. 245

106 Nakagawa, Y., Kiyoto.—White silk. 245

107 Morita, B., Kiyoto.—Colored silks. 245

108 Nishimura, S., Kiyoto.
a Fancy dress silks. 245
b Plaid dress silks. 246
c Crapes dyed and figured. 247

109 Kuwangiyo-jo, Association for the Encouragement of Arts & Manufactures, Kiyoto.—White dress silk. 245

110 Shibata, Y., Hakata, Province of Chikuzen.—Striped and figured silks. 246

111 Shiromidzu, Ch., Hakata, Province of Chikuzen.—Striped dress silk. 246

12 Nawa, S., Akita, Province of Ugo.—Fancy silks. 246

113 Ito, T., Sendai, Province of Kikusen.—Checkered dress silk. 246

114 The Nishijin Weavers, Kiyoto.
a Silk goods; brocade and striped silk. 246
b Velvets and gauze. 247

115 The Shokkojo Weavers, Kiyoto.—Striped and figured dress silks. 246

116 Sumiyama, I., Kiyoto.—Checkered dress silk. 246

117 Kiriu-Kosho-Kuwaisha, Tokio.—
a Silk carpetings and brocades. 246
b Cravats. 247

118 Tsubaki Yoshi, Sendai, Province of Rikusen.—Striped shot dress silk. 246

119 Tomita, S., Kiyoto.—Gauze. 247

120 The Kanokoshosha, Kiyoto.—Dyed and spotted crapes. 247

121 Ichida, R., Kiyoto.—Dyed and spotted crapes. 247

122 Shii-no, S., Yokohama.—Handkerchiefs, cravats, etc., of crape. 247

123 Yoshida, S., Mineyami, Province of Tango.—Crapes. 247

124 Nabeshima, S., Mineyami, Province of Tango.—Crapes. 247

125 Ikebe, N., Mineyamo, Province of Tango.—Crapes. 247

126 Nishigori, K., Nagahama, Province of Omi.—White crapes. 247

127 Nakamura, M., Nagahama, Province of Omi.—White crapes. 247

128 Tsuboi, C., Nagahama, Province of Omi.—White crapes. 247

129 Kimura, G., Kiyoto.—Crapes. 247

130 Inagaki, T., Kiyoto.—White crape. 247

131 Koseki, I., Kiyoto.—Braids. 249

131*a* Nakatsu-ji, Kiyoto.—Braids. 24

132 Izu-kura, K., Kiyoto.—Watch guards. 249

Clothing, Jewelry, and Ornaments; Traveling Equipments.

133 Wakamatsu, R., Minakuchi, Province of Omi.—Hats. 250

134 Hosoda, Z., Kiyoto.—Silk embroidery. 252

135 Sakaguchi, S., Niyoto.—Embroideries. 252

136 Nishimura, S., Kiyoto.—Embroidered tablets, table cloths, screens, etc. 252

137 Cha-ki-shosha, Kiyoto.—Embroidered picture of Buddha; embroidered carpeting and cushions. 252

138 Teramura, S., Kiyoto.—Embroidered table cloths and shawls. 252

139 Sumiyama, I., Kiyoto.—Embroidered silks. 252

140 Kiriu-Kosha-Kuwaisha, Tokio.
a Embroidered table cloths and silks. 252
b Crystal necklaces and earrings. 253
c Cigar cases, buttons, toys, umbrellas, etc. 254
d Leather boxes. 255

141 Shii-no, S., Yokohoma.—Embroidered silks, coverlets, etc. 252

142 Association for Women's Work, Kiyoto.
a Embroidered table cloths and screens. 252
b Pin cushions; silk pictures in relief. 254
c Wallets and tobacco pouches. 255

143 Nuisho-sha (Embroiderer's Society), Kiyoto.—Embroidered cloths, curtains, and screens. 252

144 Tanaka, R., Kiyoto.—Embroidered screens, curtains, etc. 252

145 Asakura, M., Tokio.—Toys and fancy articles, small objects of adornment. 254

145*a* Arai, H., Tokio.—Lacquered jewel cases, needle boxes, card boxes, cigar stands, canes, etc. 254

146 Kuwangiyo-Riyo, Tokio.—Ornamental piece of rock crystal. 254

147 The Shikki-shosha, Kiyoto.—Toys. 254

148 Iwai, Z., Nara, Province of Yamato.—Fans. 254

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

149 Myagawa, C., Tokio.—Portfolios, cigar cases, fans, pipes, etc. 254

150 Fukuda, K., Kiyoto.—Silk pictures. 254

151 Katayama, G., Kiyoto.—Ornaments. 254

152 Wobanawa, M., Tokio.—Fans. 254

153 Shippo Kuwaisha, Nagoya, Province of Owari.—Fans. 254

154 Kimura, T., Kiyoto.—Fans. 254

155 Sumii, Z., Kiyoto.—Fans. 254

156 Kuwangiyo-jo (Association for the encouragement of art and manufactures), Kiyoto.—Fans, pouches, cages, etc. 254

157 Jiami Joyen, Kiyoto.—Fans. 254

158 Tei-Ami Tegiyo, Kiyoto.—Fans. 254

159 Jo-Ami Heishiro, Kiyoto.—Fans. 254

160 Rin-ami Hanzo, Kiyoto.—Fans. 254

161 Murakami, T., Kiyoto.—Walking-canes. 254

162 Terada, G., Kiyoto.—Pipes. 254

163 Namikawa, S., Kiyoto.—Birds and toys. 254

164 Funaki, S., Kiyoto.—Birds and toys. 254

165 Yamamoto, Y., Shidzu-oka, Province of Suruga.—Cages. 254

166 Suzuki, M., Kiyoto.—Buttons, etc. 254

167 Mitsui, Kiyoto.—Pictures on small pieces of silk. 254

167*a* Awoumi, G., Hiromai, Province of Mutzu.—Lacquered glove cases, jewel cases, letter holders, etc. 254

168 Kimura, H., Kiyoto.—Note tablets. 254

Paper, Blank Books, and Stationery.

169 Kiriu-Kosho-Kuwaisha (First Japanese Manufacturing & Trading Company), Tokio.—Writing-brushes. 258

170 Kochi-ken, Local Government of.—Paper. 259

171 Hamadaken, Local Government of.—Paper. 259

172 Kiyoto-Fu, Municipality of Kiyoto.—Paper. 259

173 Riu-Kiu-han, Loo Choo Island.—Paper, of plantain fibre and straw. 259

174 Gifu-ken, Local Government of.—Writing-paper. 259

175 Tsuruga-ken, Local Government of.—Paper. 259

176 Kuwangiyo-Riyo, Imperial Board of Agriculture, Industry, & Commerce, Tokio.—Paper. 259

177 Kiriu-Kosho-Kuwaisha, First Japanese Manufacturing & Trading Company, Tokio.
- *a* Paper. 259
- *b* Blank books. 261
- *c* Wall papers. 264

178 Yoshida, K., Kiyoto.—Colored and ornamented paper for writing poetry. 260

180 Minoda, Ch., Tokio.—Albums. 261

181 Ikibe, S., & Okuyama, K., Inakimura & Komatamura, Province of Ise.—Wall paper, etc. 264

182 Haibara, N., Tokio.—Wall papers. 264

183 Matsumoto, T., Tokio.—Wall paper. 264

Weapons, etc.

184 Kiriu-Kosho-Kuwaisha, First Japanese Manufacturing & Trading Company, Tokio.
- *a* Coat of mail. 265
- *b* Swords, spears, etc. 268
- *c* Bows and arrows. 269

185 Minoda, Ch., Tokio.—Swords. 268

186 Kumagai, K., Kiyoto.—Halberds. 268

187 Yamamoto, Y., Shidzu-oka, Province of Suruga.—Swords. 268

Medicine, Surgery, Prothesis.

188 Kuwangiyo-Riyo Imperial, Board of Agriculture, Industry & Commerce), Tokio.—Drugs and medicines. 272

189 Nara, Y., Kiyoto.
- *a* Surgical instruments. 276
- *b* Dental instruments. 277

190 Rikugunsho, Imperial War Department.—Vehicles and litters for the transportation of wounded soldiers. 278

Fabrics of Vegetable, Animal, or Mineral Materials.

191 Hiogo-ken, Local Government of.—Bamboo work. 289

192 Toyo-oka-ken, Local Government of.—Straw work. 289

193 Shiga-ken, Local Government of.—Basket ware, mats, cake boxes, etc. 289

194 Nagata, Y., Tokio.—Rattan work, trays. 289

195 Yamamoto, Y., Shidzu-oka, Province of Suruga.—Bamboo work. 289

196 Kiriu-Kosho-Kuwaisha First Japanese Manufacturing & Trading Company, Tokio.—Wooden ware, boxes, cases, etc. 289

197 Shimidzu, J., Kiyoto.—Bamboo ware. 289

198 Murakami, T., Kiyoto.—Bamboo ware. 289

199 Terada, G., Kiyoto.—Bamboo ware. 289

200 Iwada, H., Kiyoto.—Bamboo ware. 289

201 Hotta, Z., Kiyoto.—Bamboo ware. 289

202 Chikumaken, Local Government of.—Bamboo ware. 289

Educational Systems, Methods, and Libraries.

203 Mombusho, Department of Public Education, Tokio.
- *a* Educational systems and methods.
- *b* Constitution of the Japanese Educational Department, and maps showing the divisions.
- *c* Elementary school books and apparatus.
- *d* Chairs and tables, etc., for schoolrooms.
- *e* Infant training and toys.
- *f* Reading and writing implements, such as were used by children in former times.

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Education and Science, Arts.

g Maps, charts, globes, etc.
h Educational equipments, tables, pens, ink boxes, blank books, paper, and other stationery.
i Abacus, arithmetical board, slates, pencils, etc.
k Examination paper for students.
l Designs and photographs for schools.
m Sectional specimens of woods.
n Leaves of various plants.
o Books of botany.
p Tabular statements of botanical classification.
q Moku-zai-sho-ran (album showing samples of the various woods used for industrial purposes).
r Artificial fruits.
s Ancient and modern medical and surgical books, and modern surgical instruments made by K. Iwashiya.
t Medicines and drugs.
u I-in zas-si, miscellaneous reports of the hospital pertaining to the medical academy.
v Anatomical designs.
w Paintings and painting materials.
x Lacquer work, showing process of manufacture and implements used.
y Wood engravings and engraving-tools, blocks and types; printing materials.
z Photographs.
ab Outline of the history of education in Japan; history of the literature and short historical sketch of the educational department. (All accompanied by the English translation.)
bb Educational regulations, notifications, reports, miscellaneous information, and Riji-ko-tei (educational reports by F. Tanaka).
cb Statistical table, showing the number of public and private schools, with their scholars, tabular statement of the revenue and expenditure of the public schools and the public school property, and other statistical tables relating to education.
db Photographs, history, regulation, and catalogue of Tokio Library.
eb Almanacs, history, dictionaries, and illustrated works on natural history, etc.
fb Newspapers, journals, and magazines, etc. 300

204 Kuwangiyo-riyo Imperial Board of Agriculture, Industry, & Commerce. —Tabular statement showing number of national newspapers. 300

205 Hirano, T., Tokio.—Collection of type and paper matrices used in printing. 300

206 Tamai, C., Province of Mino.—Illustrated work on the flora of Japan. 300

207 Hababutskuwan Museum, Tokio. —Zoological collection. 310

Scientific and Philosophical Instruments and Methods.

208 Mombusho, Department of Public Education. — Geometrical instruments; apparatus for experiments in natural philosophy. 320

209 Kozan-riyo, Mining Department, Tokio.—Meteorological report. 320

210 Kuwangiyo-riyo, Imperial Board of Agriculture, Industry, & Commerce. —Counting machine. 321

211 Okurasho, Finance Department.— Graduated scales of bamboo and brass; measures of capacity, scales, and graduated beams for weighing. 322

212 Kiriu-kosho-kuwaisha, First Japanese Manufacturing & Trading Co., Tokio.—Musical instruments. 327

Engineering, Architecture, Maps, etc.

213 Kuwangiyo-riyo, Imperial Board of Agriculture, Industry, & Commerce. —Diagrams, showing the means of arresting and controlling the flow of water; plan of water supply at the city of Tokio. 330

214 Shiu-shi-kiyoku, National Archive Office, Tokio.—Map of the Empire of Japan. 335

215 Todai-riyo, Lighthouse Department, Tokio.—Photographs of lighthouses, and maps showing their location. 335

216 Yeki-tei-riyo, General Post-office, Tokio.—Map showing the mail routes. 335

217 Suiro-riyo, Hydrographic Department, Tokio.—Marine and coast line charts. 335

218 Denshin-riyo, Telegraph Department, Tokio.—Map, showing telegraphic lines and stations. 335

Physical, Social, and Moral Condition of Man.

219 Kuwangiyo-riyo, Tokio.—Games and manly sports. 340

220 Komura, S., Kanazawa, Province of Kaga.—Japanese model house on the exhibition grounds, built by I. Matsuo. 342

221 Matsuo, I., Tokio.—Bazar on the exhibition grounds. 343

222 Zohei-riyo, Imperial Mint, Tokio.— Collection of gold and silver coins. 344

223 Kiriu-Kosho-Kuwaisha, First Japanese Manufacturing & Trading Co., Tokio.—Collection of old copper coins. 344

224 Yeki-tei-riyo, General Post-office, Tokio.—Postal cards and stamps; annual reports. 345

225 Sozeiriyo, National Revenue Department.—Revenue stamps, blank papers and licenses, etc. 345

Sculpture.

226 Honma Takusai, Sado Island.— Bronze statuette, vases, etc. 403

227 Kiriu-kosho-kuwaisha, First Japanese Manufacturing & Trading Co., Tokio.
a Bronze fountains, vases, braziers, plates, censers, teacup stands, etc. 403
b Miniature palace of sandal wood. 405

228 Minodo, Ch., Tokio.—Bronze censers, vases, candlesticks, etc. 403

230 Minodo, Ch., Tokio.—Metal pipe, paper weight, and statue. 403

231 Arai, H., Tokio.—Silver vase and decorative objects. 403

232 The Chaki-sho-sha Co., Kiyoto.— Bronze vessel. 403

233 Yoshida, Ya, Kiyoto.—Bronze vases and censers. 403

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

234 Nakagawa Joyeki, Kiyoto.—Bronze kettle, vase, and sweetmeat boxes. 403

235 Kanaya Gorosaburo, Kiyoto.—Bronze kettle, vases, and sweetmeat boxes. 403

236 Shomi, Y., Kiyoto.—Bronze vases and trays. 403

237 Shinoyama, A. U., Kiyoto.—Bronze sweetmeat box. 403

238 Kawara-bayashi Hidekuni, Kiyoto.—Bronze jug. 403

239 Kawamura, Ya, Kiyoto.—Metal teapot, cup, and stand. 403

240 Saito, Z., Tokio.—Bronze censer, vases, tablet, and images. 403

241 Yamamoto, I., Wakamatsu, Province of Iwashiro.—Bronze vases. 403

242 Imai Rihei, Kiyoto.—Carved ivory images. 405

243 The Chakishosha Co., Kiyoto.—Ivory incense box. 405

244 Hotta, Z., Kiyoto.—Ivory paper weight and tray. 405

245 Shichijo Yasunori, Kiyoto.—Carved and colored wooden statuettes. 405

246 Ide, Z., Kiyoto.—Carved wooden statuettes. 405

247 Yamamoto, Y., Shizuoka, Province of Suruga.—Carved ivory images. 405

248 Suzuki, M., Tokio.—Ivory vase, boats, and other decorative objects. 405

249 Negishi Manzo, Tokio.—Carved wooden bedstead and bedroom furniture. 405

250 Makudsu Kozan, Yokohoma.—Porcelain mouldings. 405

251 Tsuji Katsuzo, Arita, Province of Hizen.—Porcelain mouldings. 405

Paintings.

252 Kikuchi Yosai, Tokio.—Water color picture. 411

253 Tanaka Honi, Tokio.—Water color picture. 411

254 Fukushima Riuho, Tokio.—Water color picture. 411

255 Kishi Seppo, Tokio.—Water color picture. 411

256 Kawanabe Giosai, Tokio.—Water color picture. 411

257 Hasegawa Settei, Tokio.—Water color picture. 411

258 Megata Kaian, Tokio.—Water color picture. 411

259 Yamazaki Tosen, Tokio.—Water color picture. 411

260 Nagasaka Suiho, Tokio.—Water color picture. 411

261 Numado Masa-u-ki, Tokio.—Water color picture. 411

262 Minoda, Ch., Tokio.—Pictures and album. 411

263 Suzuki Hiyakunen, Kiyoto.—Pictures. 411

264 Tanaka, R., Kiyoto.—Picture album. 411

265 Shi-o-kawa Bunrin, Kiyoto.—Picture. 411

266 Nishimura, S., Kiyoto.—Pictures. 411

267 Sakaguchi, S., Kiyoto.—Pictures. 411

268 Fukami, Suminosuke, Arita, Province of Hizen.—Painted porcelain. 413

Engraving and Lithography.

269 Kuwappankiyoku, Government Printing Office.—Copper plates for government bonds, revenue stamps, etc., and specimens of work. 421

Photography.

270 Sakai, T., Kiyoto.—Photographs. 430

271 Kuwangiyo-jo, Association for the Encouragement of Art & Manufactures, Kiyoto.—Photographs. 430

Industrial and Architectural Designs, etc.

272 Zoroku, H., Kiyoto.—Bronze statuettes, tripod kettles. 443

273 Kumagai, K., Kiyoto.—Bronze vases. 443

Ceramic Decorations, Mosaics, etc.

274 Nishimura, S. J., Mikuria, Province of Hoki.—Inlaid work in wood. 452

275 Yamamoto, Y., Shizuoka, Province of Suruka.—Inlaid work in wood. 452

276 Marunaka, M, Kanazawa, Province of Kaga.
a Vases, inlaid boxes, etc. 432
b Enameled silver goblets. 454

277 The Shippokuwasha, Province of Owari.—Tea caddy. 452

278 Kanaya Gorosaburo, Kiyoto.
a Bronze vases and pots. 452
b Water pot, goblets, and sweetmeat boxes. 454

279 Yomo Yasunosuke, Kiyoto.—Bronze plates. 452

280 Fukihara, S., Tokio.—Enameled plates and jar. 454

283 Ta-Ho-jo, Kiyoto.—Vase. 454

284 Namiwaka Yasu-u-ki, Kiyoto.—Vases, lunch boxes, cigar stands, etc. 454

285 Zoroku, H., Kiyoto.—Ornamental buckle in imitation of old bronze. 454

286 Kiriu-Kosho-Kuwaisha, First Japanese Manufacturing & Trading Co., Tokio.—Enameled basin, imitation of Chinese ware; porcelain statuettes, bronze bowl. 454

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

HAWAII.

(*South of South Avenue, Columns 10 to 14.*)

COLLECTIVE EXHIBIT.

Minerals, Manufactures, Education.

Minerals, Ores, Stone, Mining Products.

1 Gilman, J. H.—Lava specimens from Kilauea. 100

2 Hawaiian Museum.—Geological specimens, by W. L. Green. 100

3 Hitchcock, H. R.—Geological specimens from crater of Kilauea. 100

4 Boys' Boarding School.—Coal from the forests of Haleakala. 101

Chemical Manufactures.

5 Pinkham, G. S.—Blacking. 202

Furniture and Objects of General Use in Construction and in Dwellings.

6 Auld, William.—Cue. 217

7 Brown, G. W.—Table from a variety of woods. 217

8 Kamaipelekane, E. P.—Fac-simile of bed, etc., used by Kamehamha I. 217

9 Fischer & Co.
a Small and large tables, revolving book-rack. 217
b Picture frame. 220

10 Williams, C. E.—Revolving shell case. 217

11 Hopper, J. A.—Kou calabashes. 224

11*a* Emma, Queen.—Water gourds and figured calabashes. 224

Yarns and Woven Goods of Vegetable or Mineral Materials.

12 Gilman, J. H.—Bamboo of silky fibre for decorations. 229

12*a* Emma, Queen.—Figured kapas and niihau mats. 229

Clothing, Jewelry, and Ornaments; Traveling Equipments.

12*b* Peterson, James A.—Yellow and black feather cape. 250

12*c* Kawaiahao Female Seminary.
a Crotchet work by pupils. 252
b Mimosa seed necklaces by pupils. 254

13 Emma, Queen.
a Cane flower and fern stem hats. 251
b Yellow and green feather wreaths, feather fly brushes, ever-lasting and moss wreaths, strings of Niihau shells, and arrowroot plant fans. 254

14 Dickson, J. Bates.—Micronesian curiosities and corals. 254

15 Beckley, F. W.—Set of kapa. 254

16 Boyd, Miss E.—Spatter work of mottoes and island ferns. 254

16*a* Pratt, Mrs.—Feather fly brushes. 254

17 Kealoha.—Set of kapa. 254

18 Oahu College.—Land shells. 254

19 Rose, Katie.—Set of kapas. 254

20 Williams, C. E.—Canes. 254

21 Wilder, Helen.—Manahiki woman's hair. 254

22 Young, Mrs.—Wreath of mosses and shells. 254

Fabrics of Vegetable, Animal, or Mineral Materials.

23 Department of War.—Hawaiian flag, royal standard. 288

Carriages, Vehicles, and Accessories.

24 Lyman, F. S.—Saddle and bridle. 296

Educational Systems, Methods, and Libraries.

25 Department of Education.
a Photographs of school-houses and groups of Hawaiian teachers and pupils. 300
b Hawaiian school-books and legislative reports. 306

25*a* Brigham, W. T.—"Hawaiian Volcanoes" and various works on the Hawaiian Islands. 306

27 Damon, S. C.—"The Friend" and Bowditch's Navigator, in the Japanese language. 306

28 Whitney, H. M.—"Gazette" and "Kuokoa" for 1875. 306

29 Sheldon, H. L.—"Pacific Commercial Advertiser." 306

29*a* Thrum, T. G.—Volume of the "Islander." 306

Institutions and Organizations.

30 Clarke, F. L.—Hawaiian curiosities; cocoanut shell water calabash, lei palava tobacco pipe, stone lamp, stone adze, sling stone. 312

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

30*a* Emma, Queen.—Ancient implements of various kinds. 312

Engineering, Architecture, Charts, Maps, and Graphic Representations.

31 Honolulu Iron Works.—Drafts of machinery. 330

32 Alexander, W. D.—Map of the crater of Haleakala. 335

32*a* Department of Government Survey.—Map of the Hawaiian Islands. 335

32*b* Thrum, T. G.—Sets of Hawaiian postage stamps. 345

Physical, Social, and Moral Condition of Man.

33 Native of Hawaii.—Wooden idols. 348

Painting.

34 Spencer, O. B.—Oil painting "Hilo Bay," by J. H. Nawahi. 410

35 Bailey, E.—Oil paintings. 410
a Bird's eye view of the crater of Haleakala.
b View of Hilo Village and Cocoanut Island.
c Views in Hilo.
d Scenery in Iao Valley.

Photography.

36 Honolulu Iron Works.—Photographs of works. 430

36*a* Brigham, W. T.—Photographs of ancient idols. 430

37 Thrum, T. G.—Photograph of Honolulu. 430

38 Dickson, M.—Photographs of Island scenes. 430

Ceramic Decorations, Mosaics, etc.

39 Department of Interior.—Hawaiian coat of arms painted on glass. 453

Machines and Implements of Spinning, Weaving, Felting, and Paper Making.

39*a* Kapa beaters and dies for printing. 524

Arboriculture and Forest Products.

40 Boys' Boarding School.
a Woods from the forests of Haleakala. 600
b Silver swords, I ving ferns. 604

41 Andrews, C. B.—Mounted ferns. 604

42 Hitchcock, D. H. & E. G.—Specimens of the pulu ferns, silver swords. 604

43 Hitchcock, H. R.—Ferns and mosses. 604

44 Jones, G. W. C.—Large tree fern. 604

Agricultural Products.

44*a* Wong Go.—Rice. 620

44*b* Chulan & Co.—Rice and paddy. 620

44*c* Waimanalo Plantation.—Rice. 620

45 Hackfeld, H., & Co.—Coffee from H. N. Greenwell. 623

Land Animals.

46 Mills, J. D.—Hawaiian birds. 635

Animal and Vegetable Products.

47 Krull, E.—Tallow. 652

48 Lyman, F. S.—Leather. 652

49 Eldarts, T. E.—Arrowroot and tapioca. 658

49*a* Dreier & Heine.—Manioc root. 658

50 Spencer, T., Hilo.—Cane sugars. 659

51 Hitchcock Bros., Hilo.—Cane sugars. 659

52 Austin, S. L., Hilo.—Cane sugars. 659

53 Afong & Achuck, Hilo.—Cane sugars. 659

54 Campbell & Turton, Lahaina.—Cane sugars. 659

55 Bailey, W. H., Wailuku.—Cane sugars. 659

56 Makee, Capt. James, Ulupalakua.—Cane sugars. 659

57 Alexander, S. T., Haku.—Cane sugars. 659

58 Waihee Plantation, Mani.—Cane sugars. 659

59 Lihue Plantation, Kauai.—Cane sugars. 659

60 Kapena, J. M.—Samples of sugar cane. 659

61 McLean, G. C.—Castor, cocoanut, and kukui oils. 662

Textile Substances of Vegetable or Animal Origin.

62 Holstein, H.—Sea Island cotton. 665

63 Wilder, S. G.—Olona fibre. 666

64 Hyman Bros.—Ramie fibre. 666

65 Gilman, J. N.—Painiu fibre. 666

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

BRAZIL.

(*North of Nave, Columns 58 to 61.*)

Chemicals, Ceramics, Furniture.

Chemicals.

1 Lopez, F. J. de Almeida.—Saltpetre. 200
2 Muricy, J. C. da Silva.—Sulphur from quartz. 200
3 Leao, D. Agostinho, S. E.—Sulphuret of lead. 200
4 Lendenberg, L. B.—Salt. 200
5 Penna, A. G. d'Araujo.—Homœopathic vegetable tinctures and opodeldoc. 200
6 Chemical Laboratory.—Chemical and pharmaceutical preparations. 200
7 Maia, Ferreira, & Co.—Pharmaceutical preparations. 200
8 Perdigao, D. F. Z.—Pharmaceutical products. 200
9 Province of Maranhao.—Pharmaceutical preparations. 200
10 Province of San Paulo.—Medical preparations. 200
11 Yiotti, E.—Pharmaceutical preparations. 200
12 Province of Pará.—Medicinal oils. 200
13 Cardoso & Gonsalves.—Soap. 201
14 Alves, Pereira, & Co.—Soap and candles. 201
15 Guimaraes, A. J. A.—Soap and candles. 201
16 Oliveira & Bro.—Soaps. 201
17 Carvalho, Ferreira de, & Bro.—Soap and candles. 201
18 Stearic Light Co.—Soaps and candles. 201
19 Dias, Duarte.—Oils. 201
20 Province of Paraná.—Soaps and candles. 201
21 Safarana, J.—Wax candles. 201
22 Stechel.—Oils. 201
23 Silva, S. S. G. da.—Copying and writing ink. 202
24 Monteiro & Co.—Writing inks. 202
25 Guimaraes, J. A. da Sa.—Pigments and varnishes. 202
26 Province of San Paulo.—Writing inks. 202
27 Yillela.—Writing inks. 202
28 Henninger, Dan., & Co.—Toilet soaps. 203
29 Lang & Co.—Toilet soaps. 203
30 Leao & Alves.—Perfumery. 203
31 Freire, Otto.—Essences. 203
32 Lepage, F. J.—Essences and pomades. 203
33 Commission-General for the National Exhibitions.—Flavoring extracts, essences, and perfumery. 203
34 Lang, J.—Toilet soaps. 203
35 Province of Pernambuco.—Safety matches. 204

Ceramics—Pottery, Porcelain, Glass, etc.

36 Esberard, F. A. M.—Terra-cotta vases and pottery. 206
37 Colony of D. Francisca.—Bricks and tubes. 206
38 Commission-General for the National Exhibitions.—Bricks. 206
39 Leao, D. A. E.—Brick of gres (clay). 206
40 Province of San Pedro do Sul.—Stone bricks. 206
41 Province of Paraná.—Tiles and bricks. 206
42 Grillo, Amaro D.—Clay pots, cups, and vases. 207
43 Patury, J. J. S.—Clay pots. 207
44 Correa, J. S.—Slate tiles for pavements and roofing. 208
45 Muricy, J. C. da Silva.—Enameled tiles. 208

Furniture and Objects of General Use in Construction and in Dwellings.

46 Commission-General for the National Exhibitions.
a Parlor furniture. 217
b Tortoise-shell boxes and articles of straw. 218
47 Province of Paraná.—Furniture. 217
48 Army Arsenal of Porto-Alegre.—Secretary of cedar wood. 217
49 House of Correction of Bahia.—Furniture made by the inmates. 217
50 House of Correction of Rio de Janeiro.
a Secretary and cabinet suit of satinwood. 217
b Baskets, barrels, and stands for manioc flour. 224
51 Kern, Clara, & Lang, Tela.—Reclining chair. 217
52 Itabapoana, Baron of.—Reclining chair. 217
53 Gerth, R. J.—Willow furniture. 217
54 Kappel & Bro.—Wood works. 217

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

55 Aguair, J. C. da Costa.—Book-stand. 217

56 Supplicy, J. F.—Hanging shelves and cane-seated chairs. 217

57 Loesch, Zacharias.—Work-box. 217

58 Moreira, F. J., & Co.—Chairs. 217

59 Alipio, D. J.—Writing-desk of sole leather. 217

60 Rodriguez, A. A.—Writing-desk. 217

61 Province of San Paulo.—Suit of furniture made of straw. 217

62 Keppler & Bro.
a Wooden chairs. 217
b Mouldings. 227

63 Borddal, Jonas.—Tables and shelves. 217

64 Province of Sancta Catharina.—Furniture. 217

65 Rocha, Polybio da.—Multiform piece of furniture. 217

66 Martinelli & Bro.—Marble fixtures for wash-stands. 219

67 Pittanti, Adriano, & Co.—Marble wash-stand. 219

68 Pommerais, Leon.—Imitation marbles. 219

69 Baumgarten, J.—Box with looking-glass for examining eggs. 224

70 Malcher, A. J., Gama.—Straw satchels and sieves. 224

Yarns and Woven Goods of Vegetable or Mineral Materials.

72 Person, A.—Wire cloths. 228

73 Bardet, F.—Wire cloths and manufactures. 228

74 Commission-General for the National Exhibitions.
a Hammocks made of different coarse materials, and in different provinces. 229
b Cotton fabrics, quilts, and towels. 230
c Dyed cotton fabrics. 231

75 Arouca & Co.—Cotton fabrics. 230

76 Rebello & Co.—Cotton fabrics. 230

77 Brazil Industrial Cotton Mill Co.—Cotton fabrics. 230

78 Colony of Blumenau.—Cotton fabrics and quilts. 230

79 Mascarenhas & Bros.—Cotton goods. 230

80 Barros, Diogo A. de.—Cotton goods. 230

81 Anhaia & Angelo.—Cotton goods. 230

82 Union Mercantile Co.—Cotton goods. 230

83 College of the Immaculate Conception.—Cotton hammocks. 230

84 Yicara, C. P. Sa.—Cotton hammocks. 230

85 Province of Paraná.—Twisted yarns. 230

86 Petropolitan Co.—Cotton goods. 230

87 Chaná, Barthelemy.—Dyed cotton goods. 230

88 Reyner, F.—Dyed cotton goods. 231

89 Lemes, R. Z. Paes.—Cotton articles. 232

90 Keller, Felippe.—Linen goods. 233

91 Colony of St. Maria da Soledade.—Linen goods. 233

92 Colony of Nova Petropolis.—Linen goods. 233

93 Kalden, Baron of.—Linen goods. 233

Woven and Felted Goods of Wool and Mixtures of Wool.

94 Lopez, F. J., Almeida.—Cloth, quilts, and cassimeres. 235

95 Moura, J. C. de.—Cassimeres. 235

96 Rheingantz & Vater.—Woolen goods. 235

97 Maschado, M. A.—Articles made of horsehair. 240

Silk and Silk Fabrics.

98 Reyhner, Fernando.—Silk goods. 245

Clothing, Jewelry, and Ornaments.

99 Dol, Ad., & Co.—Linen underwear. 250

100 Lopez, F. J. A.—Pantaloons and other cotton wear. 250

101 Roballo, J. J.—Coat of fine cloth. 250

102 Grava, Frei L. da.—Knitted shirt. 250

103 Amaral & Co.—Complete suit for gents. 250

104 Fayett & Battcher.—Pantaloons. 250

105 Commission-General for the National Exhibitions.
a Wooden and leather shoes and cipó hats. 251
b Walking-canes and articles of tortoise-shell and straw. 254
c Leather suit worn by herdsmen. 257

106 Chastel & Co.—Hats. 251

107 Armada, J. Alvaro de.—Hats, caps, and bonnets. 251

108 Bierrenback & Bros.—Hats and caps. 251

109 Braga, Fernandes, & Co.—Hats, caps, and bonnets. 251

110 Bithencourt, J.—Lasts for shoes. 251

111 Viguier.—Boots and shoes. 251

112 Silva, J. B. Carvalho da.—Hats. 251

113 Camará, J. E. P.—Hats. 251

114 City Council of Cameta.—Hats. 251

115 Santos, P. C. dos.—Hats. 251

116 Bossel, H.—Felt hats. 251

117 House of Correction, Rio de Janeiro.—Boots and shoes. 251

118 Fischer, F.—Hats and caps. 251

119 Figueredo & Co.—Boots and shoes worn by the army and navy. 251

120 Cathiard, C. F.—Boots and shoes. 251

121 Berthon.—Ladies' shoes. 251

122 District of Paulo Alfonso.—Leather hats. 251

123 Silva, H. J. da.—Canvas shoes. 251

124 Requiao, F. P.—Hats. 251

125 Gomes, M. M. Rodriguez.—Boots and shoes. 251

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Fancy Goods, Medical Appliances, Harness, Leather.

126 Sertorio & Pinho.—Kid gloves. 251
127 Viguier, H.—Shoes. 251
128 Moraes, J. C. de.—Silk hats. 251
129 Fluminense Institute of Agriculture.
a Hats made of the Bombonacea fibre. 251
b Cigar cases made of the same. 254
130 Valentin, M. J.—Jewelry. 252
131 Resse, jr., Victor, & Bros.—Decorations. 252
132 Natté, Miss.—Fancy objects made of feathers, as fans, coiffures, etc. 254
133 Province of Amazonas.—Wreath of feathers. 254
134 Lima, C. A. de, & Calarana, J. M. de.—Artificial flowers. 254
135 Braga, A. J. F.—Feather articles. 254
136 Cavalcanti, J. S. H.—Umbrella, with secret spring. 254
137 Henke Bros.—Walking-canes. 254
138 Leme, D. R. Paes.—Leather walking-canes. 254
139 Rocha, J. P. da.—Buttons, earrings, and watch chain made of cocoa. 254
140 Ferreira, L. Gomes.—Walking-canes. 254
141 Barros, A. A.—Walking-canes. 254
142 Bastos, José Xavier.—Carved walking-cane. 254
143 Costa, J. F. da.—Pictures made of mosses and insects. 254
144 Reis, H. F. dos.—Walking-cane. 254
145 Province of Rio Grande do Norte.—Jewelry boxes of wood and tortoise-shell. 254
146 Province of Maranhao.—Drinking-cups of wood. 254
147 Silva, F. J. X. da.—Chalices and cups of sassafras. 254
148 Sabut, George.—Objects made from pine-tree knots. 254

Paper, Blank Books, Stationery.

149 Leusinger Sons.—Blank books and specimens of binding. 261
150 Seckler, J.—Specimens of ruling and binding. 261

Medicine, Surgery, and Prothesis.

151 Garrid, J. F. da Silva.—Druggist's scales. 274
152 Merino & Co.—Surgical instruments. 276
153 Costa, jr, M. F. da.—Artificial teeth. 277
154 Faria, J. Bento da.—Artificial teeth. 277
155 Diniz, J. Borges.—Artificial teeth. 277

Hardware, Edge Tools, Cutlery, etc.

156 Commission-General for the National Exhibitions.—Knives, daggers, and other implements. 281

Fabrics of Vegetable, Animal, or Mineral Materials.

157 Commission-General for the National Exhibitions.
a Brooms, brushes, etc. 286
b Cordage. 287
158 Almeida, A. R. de.—Cordage. 287
159 Andrade, J. Neves.—Baskets. 289
160 Mello, G. C. de.—Wooden urn. 289

Carriages, Vehicles, Harness, and Accessories.

161 Commission-General for the National Exhibitions.—Harness and saddle. 296
162 Gulmaraes, A. A. A.—Lady's saddle. 296
163 Maylasky, S.—Serigotis (a leather girth). 296
164 Lima, F. Gomes dos Santos.—Girths. 296
165 Cahy, Baron of.—Leather reins and bridles. 296
166 Cranz, Joao, & Pinto.—Harness and horse collar. 296
167 Schmitt, Nicolau, & Co.—Complete set of harness. 296
168 Guimaraes, T. T. A.—Saddles. 296
169 Coullant, Aimé.—Horse collars. 296
170 House of Correction of San Paulo.—Bridles, reins, and harness. 296
171 Almeida, A. L.—Leather reins. 296
172 Moraes, T. C.—Saddle. 296
173 Barros, J. de A.—Leather reins. 296
174 Bierrengard, Waldemar.—Harness. 296
175 Leao, A. E. de.—Whip. 296
176 Barros, A. A., & Gaveao, B. A.—Whips. 296
177 Freischlag, Frederico.—Harness. 296

Animal and Vegetable Products.

178 Klippel & Bro.—Hides and furs. 652
179 Freischlag, F.—Patent leather. 652
180 Costa, Eymael, & Co.—Tanned hides. 652
181 Lima, F. G. S.—Tanned and sole leather. 652
182 Richlin, Jacob.—Tanned and sole leather. 652

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

ARGENTINE REPUBLIC.

(*South of Nave, Columns 2 to 5.*)

Chemical Manufactures.

Chemical Manufactures.

1 Serravalle, Carlos, Province of Corrientes. — Chemical and pharmaceutical preparations. 200

1*a* Cabrera, Mauro, Province of Buenos Ayres.—Horse medicine. 200

1*b* Cardalda, Inocencio, Province of Buenos Ayres.
a Iodoform and pepsin. 200
b Glycerine. 201

2 Queirel, Joaquin, Province of Corrientes.—Depurative solution. 200

3 Táva, Carlos, Province of Corrientes. —Bitters, digestive pepsin wine, pectoral syrup. 200

4 Sub-Commission of Bella Vista, Province of Corrientes. — Salt extracted from clay; sample of clay. 200

5 Perez, A. G., Province of La Rioja. —Tonic. 200

6 Gelos, Martin, Province of La Rioja. —Mineral salt. 200

7 Provincial Commission, Province of La Rioja.—Salt and alum. 200

7*a* Lagos, Joseph M., Province of Buenos Ayres.—Sheep wash. 200

7*b* Torres, Ana Barton de, Province of Buenos Ayres.—Fumigating lozenges. 200

8 Provincial Commission, Province of Santiago del Estero.—Ashes for soap manufacturing. 200

9 Provincial Commission, Province of Salta.
a Salt. 200
b Soap. 201

10 Justice of the Peace of Bahia Blanca, Province of Buenos Ayres.— Salt. 200

11 Justice of the Peace of Patagones, Province of Buenos Ayres.—Salt. 200

11*a* Rosquellas, Julian, Province of Santa Fé.—Medicines for animals. 200

12 Murga, N., Patagones, Province of Buenos Ayres.—Coarse salt. 200

12*a* Mujica, Eleuterio, S., Province of Buenos Ayres.
a Artificial guano from dried and boiled blood. 200
b Soluble blood albumen for producing fast colors. 202

12*b* Fablet, Beltran. — Preserved and soluble blood. 200

13 Provincial Commission, Province of Tucuman.
a Sea salt. 200
b Soap. 201

14 Commission of Andalgala, Province of Catamarca. — Rock salt from Laguna Blanca. 200

15 Provincial Commission, Province of Catamarca.
a Rock salt from Fiambalá, and saltpetre. 200
b Soap. 201

16 Lafone-Queveda, Samuel A., Province of Catamarca.
a Ashes of Cachi Yuyo for the production of carbonate of soda; carbonate of soda. 200
b Soap. 201

17 Provincial Commission, Province of Jujui.—Salt. 200

18 Escobar, Juan D., Province of San Luis.—Salt. 200

19 Terramola, Delfin, Province of San Juan. — Salt from the mines of Leoncito. 200

20 Jones, Fabian, Province of San Juan. —Ashes for manufacturing soap. 200

21 Vidal, M. A., Province of San Juan. —Ashes for manufacturing soap. 200

22 Bruna, Estevan, Province of San Juan.—Ashes for manufacturing soap. 200

23 Puertas, Lorenzo, Province of San Luis.—Cholera medicine. 200

24 Escrich, Pedro, Province of Buenos Ayres.—Peanut oil. 201

26 Piñeiro, Aurelio, Province of Buenos Ayres.—Soap. 201

27 Lanieri, Miguel, Province of Entre-Rios.—Soap. 201

28 Iglesias, José, Province of Entre-Rios.—Soap. 201

32 Provincial Commission, Province of Córdoba.—Balsamic oil. 201

33 Carmen, T. Dávila, Province of La Rioja.—Olive oil. 201

34 Alric, Antonio, Province of San Luis. —Soap. 201

34*a* Bergaré, Dr, Province of Santa Fé. —Peanut oil. 200

35 Billar, Salvador, Province of Jujui.— Petroleum. 201

36 Julien & Son, Province of Buenos Ayres.—Dyed stuff fabrics. 202

37 Prat, Adrian, Province of Buenos Ayres.—Dyed wool. 202

38 Doucet, Emilio, Province of Buenos Ayres.—Writing fluids. 202

39*a* Muro, Antonio, Province of Buenos Ayres.—Inks. 202

40 Herrera, Melchora, Province of Catamarca.—Cochineal. 202

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp 27-45.

42 Nolte, Ernesto, Province of Buenos Ayres.—Tooth powder. 203

42*a* Corneja, Melchora T. de, Province of Salta.—Zarza water. 203

Ceramics—Pottery, Porcelain, Glass, etc.

43 Pedruncini, Juan, Province of Buenos Ayres.—Burnt bricks. 206

44 Valdes, Emiliano, & Cipriano, Province of Buenos Ayres.—Burnt brick from Balcarce; brick made of black clay. 206

45 Fauvety & De Ville Massot, Province of Buenos Ayres.—Bricks. 206

46 Sub-Commission of the Department of Victoria, Province of Entre-Rios.—Architectural pottery. 206

47 Tudicar, H., & Co., Province of Entre-Rios.—Bricks made in Gualeguaychú. 206

48 Commission of the Department of Paraná, Province of Entre-Rios.—Tiles and bricks made in Victoria. 206

49 Provincial Commission, Province of Córdoba.
- *a* Tiles of burnt clay, of San Vincente Factory. 206
- *b* Flower pots, jars, stew pans, and dishes. 207
- *c* Cup, jug, etc. 213

50 Grunes & Co., Chaco-Argentine Territory.—Bricks. 206

51 Cervera & Co., Province of Santa Fé.—Tiles and bricks. 206

51*a* Provincial Commission, Province of Tucuman.—Bricks and tiles. 206

53 Echevarria, Cecilio, Province of Santa Fé.—Pitchers made by Indians. 210

54 Provincial Commission, Province of Salta.—Pans and plates. 213

55 Provincial Commission, Province of San Luis.—Crockery. 213

56 Alegre, Juan, Province of Corrientes.—Italian earthenware. 213

57 Provincial Commission, Province of Corrientes.—Crockery. 213

58 Pini & Co., Province of Buenos Ayres.—Glass cruet stand. 216

Furniture, and Objects of General Use in Construction and in Dwellings.

60 Provincial Commission, Province of Córdoba.
- *a* Tables of cocoanut and carrob-tree wood. 217
- *b* Wooden cups, silver pitchers. 218

62 Gimenez, Luis, Province of Buenos Ayres.—Combined writing-desk, washstand, etc. 217

63 Galeano, Salvador, Province of Buenos Ayres.—Venetian blinds. 217

64 Molinari, Joaquin, Province of Buenos Ayres.—Carved arm chair. 217

65 Provincial Commission, Province of Catamarca.—Cups made of Retamo wood, silver drinking-tubes. 218

67 Ladies' Commission, Province of San Luis.—Plain and carved cups. 218

68 Provincial Commission, Province of Tucuman.—Cebil wood cups. 218

69 Güemes, Domingo, Province of Salta.—Cup of palo santo wood. 218

70 Provincial Commission, Province of Salta.—Goblets and cup of palo santo wood. 218

71 Azzimonte, Luis, Province of Buenos Ayres.—Silver drinking-cup and tube. 218

71*a* Martinez, Antonio Souza, Province of Salta.—Stone cup. 218

72 Escobar, Juan D., Province of San Luis.
- *a* Wooden dish and soup ladle. 224
- *b* Wooden washing-tub. 225

Yarns and Woven Goods of Vegetable or Mineral Materials.

74 Provincial Commission, Province of Mendoza.—Mat made by prisoners in the penitentiary. 229

75 Benevolent Society, Province of Buenos Ayres.—Hemp mat. 229

76 Provincial Commission, Province of Corrientes.—Cotton counterpanes; spun cotton. 230

77 Sotomayor, Pretrona, Province of Corrientes.—Cotton counterpane. 230

78 Mantilla, Concepcion, Province of Corrientes.—Cotton counterpane; spun cotton fabrics. 230

79 Sub-Commission of Bella Vista, Province of Corrientes.—Cotton thread. 230

80 Llanos, Jorge R. de, Province of Salta.—Poncho, a national garment. 230

81 Provincial Commission, Province of Salta.—Embroidered towel. 230

82 Zorilla, Benjamin, Province of Salta.—Hammock; poncho, a national garment. 230

83 Provincial Commission, Province of La Rioja.—Cotton shawl, table cloth, and carpet. 230

84 Provincial Commission, Province of Catamarca.—Cotton napkins and table cloth. 230

85 Ponce, Delfina, Province of Catamarca.—Table cloth. 230

86 Government of the Province of Catamarca.—Cotton table cloth, napkins, handkerchief, and counterpane. 230

86*a* Burgos, Josefa, Province of Catamarca.—Table cloth. 230

87 Echevarria, Cecilio, Province of Santa Fé.—White cotton from the Province of Corrientes. 230

88 Silva, Florentino, Province of Corrientes.—Cotton from Gayasta. 230

89 Commission of the Province of Santiago del Estero.—Cotton counterpane. 230

90 Provincial Commission, Province of Tucuman.—Poncho, a national garment. 230

91 Commission of the Province of Córdoba.—White counterpanes. 230

92 Roibon, Federico, Province of Corrientes.—Fabric made by Indians from a native plant. 233

93 Benevolent Society of the Paraná, Province of Entre-Rios.—Spun cotton and napkins. 233

94 Carreras, Rosaura C. de, Province of Mendoza.—Table mat. 233

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

95 Provincial Commission, Province of Salta.—Cuirass made of chaguar grass. 233

Woven and Felted Goods of Wool, etc.

96 Provincial Commission, Province of Salta.
a Woolen fabrics, saddle bags, cloth, etc. 235
b Vicuña cloak. 240

97 Provincial Commission, Province of Jujui.
a Woolen fabrics, ropes and slings, saddle bags. 235
b Blanket. 237

98 Palacios, Prudencio, Province of Salta.—Woolen fabrics. 235

99 Diaz, Julia, Province of Catamarca.—Dyed woolen counterpane. 235

100 Lafone Quevedo, Samuel A., Province of Catamarca.
a Dyed poncho. 235
b Vicuña cloak, without seam, handkerchief and garment. 240

101 Carranza, Adolfo E., Province of Catamarca.—Woolen counterpane. 235

102 Government of the Province of Catamarca.
a Woolen articles. 235
b Vicuña blankets. 237
c Vicuña scarf, cloak, handkerchief, and quilt. 240

103 Provincial Commission, Province of Tucuman.
a Manufactures of wool. 235
b Vicuña cloak. 240

104 Provincial Commission, Province of Corrientes.—Yarns and woolen goods. 235

104*a* Devotee, A., Province of Buenos Ayres.—Ponchos, saddle cloth, and garters. 235

104*b* Campos, Julio, Province of Buenos Ayres.—Pampa girdle. 235

105 Sub-Commission of Bella Vista, Province of Corrientes.—Dyed woolen yarns. 235

106 Commission of the Province of Córdoba.
a Woolen yarns and fabrics. 235
b Tulumba blankets. 237
c Carpets. 239
d Vicuña counterpane. 240

107 Industrial Society of Rio de la Plata, Province of Buenos Ayres.—Cloth. 235

108 Provincial Commission, Province of Buenos Ayres.—Fabrics made by the Pampas Indians. 235

109 Provincial Commission, Province of Santiago del Estero.—Woolen counterpanes. 237

110 Provincial Commission, Province of San Luis.—Woolen mattress, saddle bags, quilt, blanket. 237

111 Provincial Commission, Province of La Rioja.
a Quilt, boa, etc. 237
b Vicuña cloak and shawl. 240

112 Provincial Commission, Province of San Juan.
a Woolen cloaks, blankets. 237
b Vicuña cloak and shawl. 240

114 Bustamente, Abdon, Province of Córdoba.—Blanket. 237

120 Carreras, Rosaura C. de, Province of Mendoza.—Ladies' head-dress, collars, bracelets, and gloves made of bristles. 240

121 Franco, Luis A., Province of Catamarca.—Vicuña cloak. 240

123 Schikendantz, Maria, Province of Catamarca.—Vicuña quilt. 240

125 Ocampo, Vicente, Province of Catamarca.—Vicuña shawl and coverlet. 240

Clothing, Jewelry, and Ornaments; Traveling Equipments.

138 Muntaner & Bermudéz, Province of Buenos Ayres.—Shirts. 250

139 Donato, Fortunato, Province of Buenos Ayres.—Child's suit. 250

140 Videla, Juan, Province of Buenos Ayres.—Leggings worn by the Argentine army. 250

141 Madueño, Jova, Province of Catamarca.—Vicuña handkerchief, neckties gloves, etc. 251

142 Buasso, Lorenzo, Province of Buenos Ayres.—Boots and shoes made of domestic material. 251

142*a* Carneiro, Serafin A., Province of Buenos Ayres.—Vicuña hats. 251

143 Rodriguez & Sangronis, Province of Buenos Ayres.—Boots. 251

144 Buffeti & Maya, Province of Buenos Ayres.—Hats. 251

145 Heully, Marie, Province of Buenos Ayres.—Bonnets. 251

146 Valdes, Emiliano & Cipriano, Province of Buenos Ayres.—Boots. 251

146*a* Tramon, T., Province of Santa Fé.—Boots. 251

147 Provincial Commission, Province of Tucuman.
a Boots and shoes; hats. 251
b Towels, tuckers for chemises. 252

148 Provincial Commission, Province of Corrientes.
a Palm-leaf hats. 251
b Embroideries, laces, trimmings, etc. 252

149 Nicolas, Francisco, Province of Corrientes.—Boots made of snake skin. 251

150 Provincial Commission, Province of Córdoba.
a Shoes and kid boots. 251
b Embroidered saddle bags, tuckers, towels, pillow case, and insertions. 252
c Ostrich feather dusters, silver tinder box. 254

151 Machado, Ruben, Province of Catamarca.—Aibé straw hat. 251

152 Provincial Commission, Province of San Juan.—Wool hats. 251

153 Boullet, Lewis, & Isodoro Ibarre, Province of Santa Fé.—Fur hats. 251

154 Barelli, Francisco, & Son, Province of Santa Fé.—Boots. 251

155 Treolar, Guillermo A., Province of La Rioja.—Shoes worn by Argentine miners. 251

Clothing and Fancy Articles.

156 Provincial Commission, Province of Salta.
a Boots, gaiters, cloth for hats, and Vicuña wool hats. 251
b Embroidered North American flags. 252
c Ostrich feather dusters. 254
d Leather bags. 255

157 Provincial Commission, Province of Jujui.
a Wool hats. 251
b Leather traveling bag. 255

158 Provincial Commission, Province of San Luis.
a Straw hats. 251
b Laces, embroidered underwear, church carpet, and other needle work. 252

160 Cabral, Juana T., Province of Corrientes.—Embroidered tidies, doylies. 252

161 Silva, Mercedes, Province of Corrientes.—Embroidered cloth, napkins, handkerchiefs, and chemises. 252

162 Pampin, Carmen, Province of Corrientes.—Embroidered cloth. 252

163 Colodrero, M. Cabral de, Province of Corrientes.—Crochet tray cloth, table cloth. 252

164 Lagraña, Sinforosa, Province of Corrientes.—Embroidered shawls. 252

165 Torrent, Eloiza G. de, Province of Corrientes.—Embroidered chemise and handkerchief. 252

166 Anzotegui, Escolastica S. de, Province of Corrientes.—Embroidered towel. 252

167 Pujol, Leonor, Province of Corrientes.— Embroidered chemises and towels. 252

168 Parras, Angela E. de, Province of Corrientes.—Embroidered cloth. 252

169 Mantilla, Pilar, Province of Corrientes.—Embroidered shirts. 252

170 Mantilla, Francisca, Province of Corrientes.—Embroidered shirts. 252

171 Enriguez, Anastasia Gonzalez de, Province of Corrientes.—Embroidered quilt. 252

172 Perichon, Telesfora, Province of Corrientes.—Embroidered fabric. 252

173 Mantilla, Concepcion, Province of Corrientes.—Shawls, thread lace table covers. 252

174 General Ferré's Widow, Province of Corrientes.—Embroidered cotton shirts. 252

175 Arguello, Esequiel, Province of Córdoba.—Feather mats. 252

181 Provincial Commission, Province of Catamarca.
a Crotchet quilt and towels. 252
b Raw hide trunks. 255

182 Avellaneda, Nicomeden, Province of Catamarca.—Embroidered towel. 252

183 Caballi, Cristobal, Province of San Juan.—Chasuble embroidered in colors. 252

184 Klappenbach, Sofia de, Province of San Juan.— Embroidered handkerchief. 252

185 Tello, Juana, Province of San Juan.—Embroidered handkerchief. 252

186 Provincial Commission, Province of Santa Fé.—Embroidered towel. 252

188 Provincial Commission, Province of La Rioja.
a Crochet and lace work, ornamental watch cases, embroidered tuckers, pillow cases, and napkins. 252
b Hair watch chain, screen. 254

189*a* Lillo, Tomasa, Province of Tucuman.—Towels and tuckers, for chemises. 252

189*b* Santillan, J. C., Province of Tucuman.—Cuffs. 252

190 Commission of the Chaco Argentino Territory.—Embroidered cloth. 252

191 Provincial Commission, Province of Santiago del Estero. — Embroidered counterpanes, netted towels, linen towels, and tuckers. 252

191*a* Irygoyen, Carmen O. de, Province of Salta.—Worked mat. 252

193 Bustos, Mariano, Province of San Luis.—Religious pictures embroidered in silk. 252

194 Videla, Rosa, Province of San Luis.—Embroidered paper case. 252

195 Public School of "Las Conchas," Province of Buenos Ayres.—Embroidered pillow and child's shirt, made by the scholars. 252

196 Gimenez, José, Province of Buenos Ayres.—Silk sash, with the Argentine and American colors. 252

197 Balugera, Angela, Province of Entre-Rios.— Gold and silk embroidered writing-case. 252

197*a* Simon Bros., Province of Buenos Ayres.—Embroidered picture. 252

198 Balugera, Elena, Province of Entre-Rios.—Embroidered velvet pillow. 252

199 Benevolent Society of Paraná, Province of Entre-Rios.—Crochet counterpane; tucker; embroidered handkerchief. 252

200 Etcheveherre, G., Province of Entre-Rios. — Embroidered handkerchief, dedicated to the President of the United States. 252

202 Clarke, Roberto, Province of San Luis. — Silver rings made by the Indians. 253

203 Grande, Rosario, Province of Buenos Ayres.—Gold necklace and medallion, representing the fourteen Argentine Provinces. 253

204 Lopez, Feliciano.—Cocoanut rings made of Mabocaya palm, by the Indians. 253

205 Pujol, Leonor, Province of Corrientes.—Flower made of hair. 254

205*a* Alegree, John, Province of Corrientes.—Work box. 254

206 Gonzalez, Damiana, Province of Corrientes.—Artificial flower wreath. 254

206*a* Webster, Stephen, Province of Córdoba.—Tippet made of feathers. 254

207 Etchevehère, Irene, Province of Entre-Rios.—Artificial flowers. 254

207*a* Colodrero y Pedra, Maria del Transito, Province of Corrientes.—Jatay palm, made of hair. 254

207*b* Goyena, Juana Z. de, Province of Buenos Ayres.—Hair flowers. 254

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Fancy Goods, Stationery, Medicines, Harness.

207*c* Mullan, Ciriaca de la Elguera, Province of Buenos Ayres.—Hair flowers. 254

208 Bourgeois, N., Province of Buenos Ayres.—Hair picture. 254

210*a* Robion, Julian, Province of Buenos Ayres.—Hair flowers. 254

211 Ferrer, Eleucadia, Province of Córdoba.—Flowers made of seeds. 254

212 Sub-Commission of Andalgala, Province of Catamarca.—Artificial flowers. 254

213 Guntsche, J., & Schröeder, Province of Buenos Ayres.—Trunks. 255

214 Mattaldi, Eugenio, Province of Buenos Ayres.—Trunk which can be transformed into a sofa, with writing-desk, etc. 255

215 Grest, M., & Co., Province of Santa Fé.—Trunk. 255

Paper, Blank Books, and Stationery.

216 Benelische, Federico, Province of Buenos Ayres.—Blank books, diaries, and bindings. 261

217 Piqueras, Cuspinera, & Co., Province of Buenos Ayres.—Books bound by hand. 261

Medicine, Surgery, Prothesis.

232 Provincial Commission, Province of Catamarca.—Medicinal herbs. 272

233 Provincial Commission & D. Abraham Lemos, Province of Mendoza.—Herbarium of the officinal flora of the province. 272

234 Roman, Medardo, Province of Mendoza.—Wild fennel. 272

235 Provincial Commission, Province of San Luis.—Medicinal herbs. 272

236 Molina, Angela, Province of Catamarca.—Sudorific and digestive substances; cedron de puna, for affections of the lungs. 272

237 Iturbe, Fidel, Province of Catamarca.—Pharmaceutical preparations. 272

238 Castelo, Guadalupe, Province of Catamarca.—Medicinal herbs and plants. 272

239 Hurley, Tomas, Province of Catamarca.—Medicinal herbs. 272

240 Lafone Quevedo, Samuel A., Province of Catamarca.—Medicinal herbs. 272

241 Würffbain, Gustavo, & the Provincial Commission, Province of La Rioja.—Herbarium composed of herbs and medicinal plants. 272

241*a* Schickendantz, Frederick, Province of Catamarca.—Medicinal herbs. 272

242 Gonzalez, Joaquin, Province of La Rioja.—Medicinal plants and herbs. 272

243 Gelos, Martin, Province of La Rioja.—Spurge, from which castor oil is extracted. 272

245 Justice of the Peace of Ensenada, Province of Buenos Ayres.—Sarsaparilla, etc. 272

247 Valdez, E. & C., Province of Buenos Ayres.—Chamomile, borage, sponge, sarsaparilla, sage, etc. 272

248 Gonzales, Juan, Province of Buenos Ayres.—Medicinal herbs. 272

249 Iñiguez, Dalmira, Province of Buenos Ayres.—Medicinal herbs. 272

250 Provincial Commission, Province of Buenos Ayres.—Medicinal herbs. 272

250*a* Oliden, Tomas, Province of Buenos Ayres.—Medicinal herbs. 272

250*b* Gache, Manuel, Province of Buenos Ayres.—Té pampa. 272

251 Ferrer, Vicente, Province of Corrientes.—Medicinal herbs. 272

252 Roibon, Enrique, Province of Corrientes.—Herbarium. 272

253 Sub-Commission of Bella Vista, Province of Corrientes.—Tartago seed, chamico, etc. 272

255 Provincial Commission, & Sola, Juan, Province of Salta.—Medicinal herbs. 272

256 Provincial Commission, Province of Córdoba.—Medicinal herbs and plants. 272

257 Fontes, Vicente Martinez, Province of Entre-Rios.—Medicinal herbs. 272

259 Berdie, M., Province of Entre-Rios.—Medicinal water. 272

260 Commission of Paraná, Province of Entre-Rios.—Berros waters and medicinal herbs. 272

261 Rodriguez, Victor, Province of San Juan.—Saffron, flax seed. 272

263 Rodriguez, Severo, Province of San Juan.—Mustard. 272

266 Poblete, Tiburcio, Province of San Juan.—Medicinal seeds, herbs, and plants. 272

267 Provincial Commission, Province of Santiago del Estero.—Medicinal herbs. 272

268 Lacour, Guillermo, Province of Buenos Ayres.—Orthopedic apparatus. 276

269 Newbery, Rodolfo, Province of Buenos Ayres.—Artificial teeth. 277

Fabrics of Vegetable, Animal, or Mineral Materials.

271 Provincial Commission, Province of Salta.—Brooms from Totora. 286

Carriages, Vehicles, and Accessories.

272 Balvidares, Victorino, Province of Buenos Ayres.—Horse-hair whip. 296

273 Peñalva, Benito, Province of Buenos Ayres.—Horse belt. 296

274 Videla, Juan, Province of Buenos Ayres —Harness. 296

275 Provincial Commission, Province of Buenos Ayres.—Silver spurs. 296

276 Guntsche, J., & Schröeder, Province of Buenos Ayres.—Saddles. 296

276*a* Valdes, Honorio, Province of Buenos Ayres.—Plaited lasso. 296

277 Mattaldi, Eugenio, Province of Buenos Ayres.—Saddles and harness. 296

278 Provincial Commission, Province of San Juan.—Saddlery and harness. 296

For classes of exhibits, indicated by numbers at end of entries see Classification, pp. 27-45

279 Tirapegui, Ramon, Province of San Juan.—Mexican saddle, stirrups, bridles, etc. 296

280 Rodriguez, Victor, Province of San Juan.—Harness and stirrups. 296

281 Rodriguez, Severo, Province of San Juan.—Spurs and horse cloth. 296

282 Crest, M., & Co., Province of Santa Fé.—Pack saddle used by the army, leather girth, etc. 296

283 Provincial Commission, Province of Santa Fé.—Horse cloths, tapir leather reins and surcingle. 296

284 Provincial Commission, Province of Tucuman.—Leather caparisons, saddlery, lassoes, etc. 296

285 Provincial Commission, Province of Cordoba.—Harness, saddlery, horse cloth, etc. 296

286 Provincial Commission, Province of San Luis.—Bristle horse cloth, ostrich feather and other caparisons. 296

287 Escobar, Juan de D., Province of San Luis.—Stirrups, braided shackles, girth, and reins. 296

288 Sosa, Rafael, Province of San Luis.—Ostrich feather caparison. 296

289 Provincial Commission, Province of Salta.—Pack-saddle, girth, straps, head stall, tapir leather reins, caparisons, lassos, etc. 296

290 Provincial Commission, Province of Catamarca.—Vizcacha leather caparison, and braided lasso. 296

291 Andalgalá Commission, Province of Catamarca.—Horse cloth, harness, girths, reins, bridles, etc. 296

292 Gigena, Justiniano, Province of Catamarca.—Horse cloth. 296

293 Gonzalez, Daniel, Province of Mendoza.—Horse cloths. 296

295 Provincial Commission, Province of Jujui.—Tapir leather reins, bridle, etc. 296

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

CHILI.

(South of Nave, Columns 3 to 5.)

COLLECTIVE EXHIBIT.

Manufactures, Education and Science, Art.

Chemical Manufactures.

1 Salcedo, L., Bogota, Columbia.—Oil of wood, for medicinal purposes. 201

2 Campora Brothers, Department of Santiago, Province of Santiago.—Olive oil. 201

3 Celedonia, Diaz de la Vega, Valparaiso.—Perfumes, etc. 203

Ceramics—Pottery, Porcelain, Glass, etc.

4 Escudero, R., Santiago.—Samples of enameled tiles for flooring. 208

Furniture and Objects of General Use in Construction and in Dwellings.

5 Dell, Aquila A., Santiago.—Alabaster table tops. 217

Woven and Felted Goods of Wool, etc.

6 School for Poor Girls, Molina, Department of Lontue.—Assorted worsteds. 238

Clothing, Jewelry, Ornaments, and Traveling Equipments.

7 School for Poor Girls, Molina, Department of Lontue.

a Knitted spread and afghan. 250

b Sofa pillows of satin and lace; hand-made lace, crochet and lace tidies, bed covers, embroidered tapestry rug, and silk parasol embroidered with tatting. 252

8 Astudillo, J. M., Santiago.—Leather and silk boots and shoes. 251

9 Monastery, of the Good Shepherd, Santiago.—Embroidered handkerchief. 252

10 Cadiz, José, Gabriel, Santiago.—Gypsum ornaments. 254

11 Schrebler, Federico, Santiago.—Card baskets. 254

Paper, Blank Books, Stationery.

12 Shrebler, Federico, Santiago.—Blank books; samples of printing, lithography, and binding. 261

13 "Mercurio" Printing & Binding Office.—Specimens of printing and binding. 261

Medicine, Surgery, Prothesis.

14 Celedonia, Diaz de la Vega, Valparaiso.—"Wine of life," medicinal. 272

Fabrics of Vegetable, Animal, or Mineral Materials.

15 Waddington, Wm., Department of Limache, Province of Valparaiso.—Straw, brooms, and brushes. 286

16 Osthaus, Luis, Department of Limache, Province of Valparaiso.—Rope and cordage. 287

17 Reich, Federico, Santiago.—Rope and wire cordage. 287

Educational Systems, Methods, and Libraries.

18 Gonzalez, Ugalde, Carlas.—Educational reports. 304

19 Chili, Government of, Statistics Bureau, Valparaiso.—Statistics of Chili. 305

20 Sève, Edouard, Santiago.—Periodical publications of Chili, and "Chili as it is." 306

21 Chaigneau, Julie, Valparaiso.—Newspapers. 306

22 Lefèvre, R., Valparaiso.—Works on agriculture. 306

23 Hydrographic Office, Valparaiso.—Various publications. 306

24 Villaroel, A., Santiago.—Various publications. 306

25 Latrop, E., Valparaiso.—Various publications. 306

26 Lastarria, Victorine, Santiago.—Various publications. 306

27 "Mercurio" Printing Office, Valparaiso.—Various publications. 306

28 Tarnero, S., Valparaiso.—"Chili Illustrated." 306

Scientific and Philosophical Instruments and Methods.

29 Galapé, J. M. L., Andes.—Model of telegraph machine. 326

Engineering, Architecture, Maps, etc.

30 Chili, Government of.—Map of Chili; plans of bridges and public buildings. 335

Sculpture.

31 Plaza, Nicanor.—Gypsum bust, two bronze medallions, and one bronze statue. 400

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

32 Bravo, Simon, Santiago.—One crucifix, carved in wood. 405

Engraving and Lithography.

33 Balbé, Juan C., Santiago.—Pen drawing. 420

Ceramic Decorations, Mosaics, etc.

34 Deli, Aquila A., Santiago.—Black marble table tops, inlaid with mosaic. 450

35 Dee, José, Antonio, Valparaiso.—Wood mosaic. 452

Machines, Tools, etc., of Mining, Chemistry, etc.

36 Chili, Government of.—Working model of gold and silver amalgamating machine. 506

Machines and Implements of Spinning, Weaving, and Paper-making.

37 School for Poor Girls of Molina, Department of Lontue.—Weaving frame for cotton. 521

Arboriculture and Forest Products.

38 National Society of Agriculture, Santiago.
a Building woods of Chili. 600
b Ornamental woods of Chili. 601

39 Billerlich, Juan, Ancud.—Varnished woods. 601

40 Lontue, Department of.—Samples of wood. 600

Agricultural Products.

41 National Society of Agriculture Santiago.
a Medicinal herbs of Chili 621
b Seeds. 624

42 Enrique, Clasen, & Co.—Cigars, cigarettes, smoking and leaf tobacco. 623

43 Cox, W. O.—Cut tobacco. 623

44 Waterhouse, Thomas, Santiago.—Hops. 623

45 Pretta, Pedro, Santiago.—Seeds. separated by machinery. 624

Land Animals

46 Soto, O. & M., Canquenes.
a Stuffed heimuel. 633
b Stuffed condor 635
c Stuffed puma 637

Water Animals, Fish Culture and Apparatus.

47 Sciaccaluga & Co., Calbuco.
a Preserved fish. 641
b Preserved shell fish. 643

Animal and Vegetable Products.

48 Valenzuela, P. N., Rengo.—Leather, tanned and varnished. 652

49 Wolle, A., & C., Tome.—Glue. 652

50 Day, J. M., Colchagua.—Wax. 654

51 National Society of Agriculture, Santiago.—Wax. 654

52 Escheverría, J. R., Guillota.—Wax. 654

53 Gallo, A. M., Caupolican.—Wax. 654

54 Dupuch, B., Limache.
a Preserved fruits, marmalades, etc. 656
b Claret. 660

55 Pretta, Pedro, Santiago.—Extract of coffee. 656

56 Velazco, J. J., Mill Santiago.—Flour and bran. 657

57 Zapata, L., Department of Quillota, Province of Valparaiso.—Starch. 658

58 Donis, Félipe, Department & Province of Santiago.—Fruit syrup and lemonades. 659

59 Urmeneta, José Tomas de, Department of Limache, Province of Valparaiso.—Claret and sauterne wines. 660

60 Montane, R., Department of Limache, Province of Valparaiso.—Claret. 660

62 Campora Bros., Department of Santiago, Province of Santiago.—Wines and cider. 660

63 Ochagavia, Silvestre, Department of Santiago, Province of Santiago.—Claret and sauterne. 660

64 Infante, Manuel, Department of San Felipe, Province of Aconagua.—Whisky, cider, and wine. 660

65 Rusque, Juan, Department of Quillota, Province of Valparaiso.—Claret. 660

66 Salva, de Pelle, Margarita, Department of Quillota, Province of Valparaiso.—Claret. 660

67 Zapata, L., Department of Quillota, Province of Valparaiso.—Whisky and claret. 660

68 Meneses, N., Department of Quillota, Province of Valparaiso.—Claret. 660

69 Rogers, Salamanca F., & Co., Department of Victoria, Province of Santiago.—Claret and sauterne. 660

70 Ovalle, D. & E., Department of Victoria, Province of Santiago.—Claret and sauterne. 660

71 Vargas, Blas, Department of Victoria, Province of Santiago.—Claret and sauterne. 660

72 Paulsen, J., Department of Chillan, Province of Chillan.—Claret, white, and port wine. 660

73 Gallo, Department of Copiape, Province of Alacama.—Madeira wine. 660

74 Riquieri & Co., Department of Valparaiso, Province of Valparaiso.—Brandy, curaçoa, and fancy liquors. 660

75 Serrano, H., Department of Concepcion, Province of Concepcion.—Claret and red wine. 660

76 Perez, Juan José, Department of Casablanca, Province of Valparaiso.—Whisky and claret. 660

77 Plageman & Co., Valparaiso.—Beer, ale, and lager beer. 660

78 Codelia, Juan, Santiago.—Vermicelli. 661

Textile Substances of Vegetable or Animal Origin.

79 Barros, Lauro, Santiago.—Wool. 667

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

PERU.

(South of South Avenue, Columns 2 to 5.)

COLLECTIVE EXHIBIT.

Minerals, Manufactures, Education, Art, Agriculture.

Minerals, Ores, Stones, Mining Products.

1 Special Commissioner to the Exposition from Lima.—Minerals of Peru. 100

2 Helguero, Genaro S., Puira.
a Sulphur. 100
b Tar. 101

3 Davila é hyos, Maguegua. — Plans of Maguegua. 120

Chemical Manufactures.

4 Garces, Vicente, Puira.—Soap. 201

5 Smith, Estéban G., Puira.—Petroleum. 201

6 Prugue, E., Lima.—Oil, soap, candles. 201

Furniture and Objects of General Use in Construction and in Dwellings.

7 Penitentiary of Lima. — Wood work. 220

Yarns and Woven Goods of Vegetable or Mineral Materials.

8 Puira, Department of.—Ponchas, towels, etc. 233

Woven and Felted Goods of Wool, etc.

9 Torre, Manuel Espirito la, Lima.—Vicuña texture. 238

Silk and Silk Fabrics.

10 Amazon, Department of the.—Vegetable silk. 244

Clothing, Jewelry, and Ornaments; Traveling Equipments.

11 Brambilla, Fortunato, Lima.—Shirts, cuffs, and collars. 250

12 Ayacucho, Department of.
a Clothing. 250
b Silver filigree work, etc. 254

13 Torre, Manuel Espirito la, Lima.—Gloves. 251

14 Navarro, Pedro, Catasos. — Straw hats. 251

15 Pinó, Manual, Lima.—Gloves. 250

16 Penitentiary of Lima.
a Shoes. 251
b Canes. 254

17 Manzanares, Josefa, Lima. — Embroideries. 252

18 House of Santa Rosa, Lima.—Embroideries. 252

19 House of Santa Teresa, Lima.—Artificial flowers. 254

Paper, Blank Books, Stationery.

20 Perez, Manuel, Trinidad. — Typographical specimens. 261

Educational Systems, Methods, and Libraries.

21 Bureau of Education, Lima.—Map of Peru. 300

22 Raimondi, Antonio.—Map of Peru. 300

Institutions and Organizations.

23 Hevvera, Antonio M., Lima.—Antiquities. 312

24 Cohille, Guillermo B., Lima.—Antiquities. 312

Sculpture.

25 Manual de la Vega, Juana.—"General Grant" (wire bust). 400

26 Barrenechea, Paulino, Lima.—Coat of arms of Peru (wood carving). 405

Painting.

27 Muniz, Ramon, Lima.—"La Chilena," "The Peruvian Rabona" (oil paintings). 410

Photography.

28 Municipal School of Lima.—Photographs. 430

Arboriculture and Forest Products.

29 Ayacucho, Department of.—Woods from Huanta and La Mar. 600

30 Special Commission to the Exhibition.—Woods. 600

Pomology.

31 Ayacucho, Department of.—Nuts. 611

32 Valcarcel, Venancio, Moguega.—Olives. 611

33 Pisco, Province of.—Raisins. 611

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Agricultural, Animal, Vegetable Products.

34 Vico, Vicente, Moguega.—Olives. 611
35 Loreto, Department of.—Nuts. 611

Agricultural Products.

36 Society for the Increase of Peruvian Industry, Lima.—Grains. 620
37 La Libertad, Department of.—Grains from the Province of Ozuxco. 620
38 Loreto, Department of.
a Beans. 621
b Coffee. 623
40 Ayacucho, Department of.—Coffee and cocoa. 623
41 Amazon, Department of The.—Coffee and tobacco. 623
42 Goybura, J. B., San Pedro.—Coffee. 623
43 Pouehan, Antonio, & Co., Lima.—Cigars. 623
44 Special Commissioner to the Exposition from Lima.—Huanco coffee. 623
45 Puira, Department of.—Cigars. 623
46 Botanical Garden of Lima.—Seeds. 624

Animal and Vegetable Products.

47 Segovia, Carolina, Challuanca.—Hides. 652
48 Ayacucho, Department of.—Skins. 652
49 Goybura, J. B., San Pedro.—Rice. 657
50 Solf, Alfred, & Co., Chiclayo.
a Rice. 657
b Sugar. 659
c Alcohol. 660
51 Puira, Department of.—Starch. 658
52 Laos, Mariano.—Sugars. 659
53 Laos, Domingo, Lima.—Sugar. 659
54 Swain, Enrique, Lima.
a Sugar. 659
b Rum and brandies. 660
55 Ward, M. Adrian, Tacna.—Wines and brandies. 660
56 Boza, José, Pisco.—Liquors, wines, and brandies. 660
57 Davila é higos, Lima.—Brandies. 660
58 Torre, Mariano la, Lima.—Wines. 660
59 Palacios, Fernande, Lima.—Wines and brandies. 660
60 Pandoy, José Maria, Algosta.—Wines. 660
61 Society for the Improvement of Peruvian Industries, Lima.—Amazon bitters, liquors. 66c
62 Barrios, José P., Moquegua.—Brandy and liquors. 66c
63 Cabello, Gregorio, Lima.—Liquors, wines, and brandies. 660
64 Barrios, Domingo, Moquegua.—Wines. 660
65 Barrios, Samuel, Moquegua.—Wines. 660
66 Dios de la Quintana, Juan de, Ica.—Liquors, wines, and brandies. 660
67 Barrios, José Maria.—Liquors, wines, and brandies. 660
68 Torre, Manuel Espirito la.—Liquor from Conocancha. 660
69 Salas & Terry, Lima.—Rum. 660
70 Soldan, Luis Paz, Lima.—Olive oil. 662
71 Ylo, Province of.—Olive oil. 662
72 Lerra, Manuel J., Puira.—Castor oil. 662

Textile Substances of Vegetable or Mineral Origin.

73 Dios de la Quintana, Juan de, Ica.—Cotton. 665
74 Navvarez, José Maria Cardenas, Ayacucho.—Huantra cotton. 665
75 Elias, D. & C., Lima.—Cotton. 665
76 Torre, Manuel Espirito la.—Wool. 667
77 Ayacucho, Department of.
a Wool. 667
b Silk. 668
78 Special Commissioner to the Exhibition.—Cocoons and silk. 668

Agricultural Engineering and Administration.

79 Peru, Government of.—Guano deposits from Lobos, Pabellon de Pica, and Guamillas. 681

Ornamental Trees, Shrubs, and Flowers.

80 Botanical Garden of Lima.—Plants. 701
81 Special Commissioner to the Exhibition.—Plants for silk worms. 704

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45

MEXICO.

(*South of Nave, Columns 64 to 67.*)

COLLECTIVE EXHIBIT.

Chemicals, Ceramics, Furniture, Woven Goods, Clothing.

Chemicals.

1 Mier, Antonio, State of Jalisco.—Natural salts of sodium. 200

2 Hay, Guillermo, City of Mexico.—Salts of sodium, extracted from the lakes of the Valley of Mexico. 200

3 Rio de la Loza, Manuel, City of Mexico.—Salts of sodium. 200

4 State Government of Yucatan, Merida.—Salts of sodium. 200

5 State Government of Campeche.—Salts of sodium. 200

6 State Government of Mexico.—Salts of sodium. 200

7 Rio de la Loza, Maximino.—Chemical products. 200

8 Ligero, M., City of Puebla.—Stearine. 201

8*a* Hurtado, H.—White and red lead. 200

Ceramics—Pottery, Porcelain, Glass etc.

9 Casarir, Alezander, & Co., City of Mexico.
a Indian vases. 206
b Porcelain. 213

10 Guerrero, Ygnacia, Puebla City.—Bricks. 206

11 State Government of Morelos.—Indian vases. 206

Furniture and Objects of General Use in Construction and in Dwellings.

12 Garcia, Francisco, State of Oaxaca.—Chairs of Mexican reeds. 217

12*a* State Government of Hidalgo.—Mexican agave fibre manufactures. 229

12*b* State Government of Yucatan.—Hammocks, shawls, bags, and other objects, made of istle, or fibres, of the Mexican heneguen (agave of Yucatan). 229

13 Gomez, Poloma J., Guadalajara City.—Cotton yarns. 230

14 Rosario Hacienda, State of Coahuila.—Cotton goods. 230

15 Trapaga, Torriello, & Co., State of Oaxaca.—Yarns; cotton cloth. 230

16 Colima Workingmen's Club.—Cotton goods for vestings, etc. 230

17 Bermejillo, Pio, City of Mexico.—Cotton goods. 230

18 Davila, Hoyas, Saltillo City.—Cotton goods. 230

19 El. Labrador Factory, Saltillo City.—Cotton goods. 230

20 Aurora Factory, Saltillo City.—Cotton goods. 230

21 Comte, Manuel, City of Puebla.—Cotton goods. 230

22 Patriotismo Factory.—Cotton cloths. 230

23 Quijano, Alexandro.—Cotton goods. 230

24 La Beneficencia Factory.—Cotton goods. 230

25 Benites, D., City of Puebla.—Cotton goods. 230

Woven and Felted Goods of Wool, etc.

25*a* Zempoala Factory, State of Guanajuato.—Woolen goods. 235

26 Rosa, Manuel, City of Mexico.
a Cassimeres. 235
b Blankets. 237

Silk and Silk Fabrics.

27 City of Puebla.—Silks and silk fabrics. 244

Clothing, Jewelry, and Ornaments; Traveling Equipments.

28 State Government of Coahuila.—Zarapes. 250

29 Tailors' Society, City of Mexico.—Charro dress. 250

30 State Government of Yucatan.—Indian baby dress. 250

31 Polo, Miss Luz, City of Mexico.—Fancy shirt. 250

32 Hernandez, Mrs. Amalia, City of Mexico.—Fancy shirts. 250

33 Cusset, N., City of Mexico.—Gloves. 251

34 Fernandez, Gertrude.—Embroidery. 252

35 Robles, Miss Rita.—Embroidery. 252

36 Perry, Miss Concepcion.—Embroidery. 252

37 Castorena, Miss Merced.—Embroidery. 252

38 Fuentes, Miss Loreto.—Embroidery. 252

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-44

39 Montes de Oca, Miss Bernardo.—Embroideries. 252

40 Velasquez, Mrs. Luz, City of Mexico.—Embroidered handkerchief. 252

41 Loreto, Mrs., City of Mexico.—Embroidery. 251

42 Mata, Mrs. Josefina, City of Mexico.—Fancy towel. 252

43 Campo de Mata, Mrs. Josefa, City of Mexico.
a Cushion in filigree. 252
b Fancy box. 254

45 Pensado, Mrs., & Sisters.—Artificial flowers. 254

46 Carvajal, Antonio, City of Mexico.—Gold and silver galloon. 254

Paper, Blank Books, Stationery.

47 Benfield, City of Mexico.—Paper. 260

48 Palomar & Co., State of Jalisco.—Paper. 260

49 Dias, Leon Francisco de, City of Mexico.—Specimens of printing. 260

Medicine, Surgery, Prothesis.

50 Grissi, J.—Medicinal plaster. 272

51 Morril, A.—Extract of zarzaparrilla and other preparations. 272

52 Society of Natural History.—Medicinal plants. 272

53 Fink, Hugo, State of Vera Cruz.—Cinchona, from Cordova. 272

54 Rogul, Antonio, City of Mexico.—Artificial teeth. 273

55 Chacun, Mariano.—Artificial teeth. 273

Fabrics of Vegetable, Animal, or Mineral Materials.

56 Carvajal, Antonio, City of Mexico.—Indian manufactures from the State of Michoacan. 289

56*a* Escobedo, Mariano, City of Mexico.—Indian manufactures from the State of Yucatan. 289

Educational Systems, Methods, and Libraries.

57 Cerna, David, City of Mexico.—Musical compositions. 302

57*a* Peralta, Mrs. Angela.—Musical compositions. 302

58 Garfias, Miss Maria.—Musical works. 302

58*a* Rocha, Miss Amelia, City of Mexico.—Musical compositions. 302

59 Alcarar, Vicente.—Elementary arithmetic. 306

60 Almazan, Pascal.—Treatise on railroads. 306

61 Argandar, Alexandro.—Commercial arithmetic. 306

62 Bablot, Aranyo y.—Children's recreative books. 306

63 Castilla, Antonio y.—Lessons on religion and morality. 306

64 Manuel, Contreras.—Elements of mathematics; lessons on morality. 306

65 Chimalpopoca, Faustino, City of Mexico.—Nahuatl language. 306

66 Covarriebias, Francisco.—Astronomical and geographical works. 306

67 Domisguer, J.—Geography and statistics. 306

68 Garcia y Cubas, Antonio.—Geography and statistics. 306

69 Gama, Mucéo.—Geometry. 306

70 Gutierrez, Serapio.—School books. 306

71 Garcia, Vargas.—Elementary Spanish grammar. 306

72 Gabran, Rivera,—Arithmetic. 306

73 Hermosa, J.—Geography. 306

74 Moral, Fomas.—Geography. 306

75 Marrogui, J. M.—Democratic catechism and orthology. 306

76 Murguria.—School books. 306

77 Magalori, Horatio.—Italian grammar. 306

78 Orellana, Estevan.—Latin language. 306

79 Oviedo, Paulino.—School books. 306

80 Orozco, Antonio.—Book-keeping. 306

81 Payno, Manuel.—Compendium of geography. 306

82 Paniagua, Cenobio.—Lessons on harmony. 306

83 Rosas, Josè.—School books and other works. 306

84 Rivera, T. Rio.—Reading book. 306

85 Ruis, Davila.—Metrical system. 306

86 Remigio, Rodriguez.—Spanish grammar. 306

87 Tamborrel.—Equations. 306

88 Ferrazas, Josè Joaquim.—Elementary arithmetic. 306

89 Zambrano, Francisco.—Lessons on orthology, and other works. 306

90 Mexican Mining Society.—"El Propagador" (scientific paper). 306

91 Tapia, Mrs. Ester.—Works on literature and poetry. 306

92 Arriago, Joaquim.—Recreative science. 306

93 Aguilar, Bruno.—Treatise on artillery. 306

94 Arteaga, Juan.—Zöotechnic studies. 306

95 Aiye, Patricio.—Calculus. 306

96 Arroniz, Marcus.—Biography. 306

97 Barcena, Mariano.—Works on natural history. 306

98 Barcena, M. José Roa.—Treatise on history and geography. 306

99 Brito, Josè.—Works on jurisprudence. 306

100 Bernardy, Mrs. Louisa.—Geography of Mexico. 306

101 Castillo, Velasco.—Constitutional rights. 306

102 Chavero, Alfredo.—Archæological essays. 306

103 Dias, Barriero.—Mexican penal code. 306

104 Diaz, José Covarrubias.—Public instruction in Mexico. 306

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Education and Science, Art, Vessels, Woods.

105 Escandon, Pedro.—Instruction in fine arts. 306

106 Esptein, Isidoro.—Works on topography and thermometry. 306

107 Garcia, Antonio Cubas.—History. 306

108 Iglesias, Jose Maria.—Historical documents. 306

109 Iglesias, Angel. — Laryngoscopy. 306

110 Jirnenez, Julio.—On public administration. 306

111 Lobato, J. Guadalupe.—Cerebral softening. 306

112 Lozano, J. M.—Civil code. 306

113 Lescanor, Antenor.—Agriculture. 306

114 Mender.—Narrow gauge in operation. 306

115 Maravedo, Salazar.—Military maneuvering. 306

116 Montez, R. Oca.—Ornithological essays. 306

117 Martinez, Victor.—History of the Mexican Revolution. 306

118 Monteil, Duarte.—Personal and civil rights. 306

119 Martinez, Joaquim.—Modern and ancient history and mythology. 306

120 Martinez, Del Rio.—Cultivation of cotton. 306

121 Nunez, Angel.—Geography of Vera Cruz. 306

122 Orasco, Manuel Berra J.—Hydrographical chart of the valley of Mexico, and geography of language. 306

123 Perez, E. Juan.—Statistical almanacs. 306

124 Perez, Hernandez.—Geographical dictionary. 306

125 Prieto, Guillermo.—Political economy, and other works. 306

126 Pimental, Francisco.—Comparative and descriptive sketch of American physiology. 306

127 Peon, José Contreras.—Historical romances. 306

128 Rivas, José.—Code of urbanity. 306

129 Sierra, Justo.—Maritime law. 306

130 Povan, Parrtaleon.—Parliamentary history. 306

131 Zayas, Pablo.—Dictionary of Mexican legislation, civil code. 306

132 Federal Government.—Works upon the gubernatorial system, relating to the department of the interior, war, navy, public instruction, topography, and other scientific subjects. 306

133 Pharmaceutical Society of Mexico.—Pharmacopœia of the city of Mexico. 306

134 Larry Scientific Association.—Historical accounts and reports of the proceedings of the association. 306

135 Mexican Scientific Society.—Works on education and geography. 306

136 Society of Natural History.—"La Naturaleza"—scientific newspaper. 306

137 Humboldt Society.—"Humboldt's Annals." 306

138 Department of Public Works.—Drainage of the valley of Mexico, topography of the federal districts of the city of Mexico, of the mountains of Pacheco, and of the palace of the archbishop of Mexico. 306

Institutions and Organizations.

139 Romier, Cuatafraro T.—Pyrocnostical study of minerals from Guanajuato. 311

140 Camacho, J., City of Mexico.—Musical compositions. 313

141 Ytuarte, J., City of Mexico.—Musical compositions. 313

Scientific and Philosophic Instruments and Methods.

142 Loera, City of Mexico.—Frenometry. 320

143 Oropera, Guillermo.—Sensible scales. 320

144 Zenca, J. Estrada, City of Mexico.—Map. 335

145 Ramirez & Cuataparo, City of Mexico.—Maps. 335

146 Barcena, Mariano, City of Mexico.—Maps. 335

Oil Paintings.

148 Majira, Mrs. G.—Oil paintings. 410

149 Labisky, Mrs.—Water color painting, "coffee plant." 411

Engraving and Lithography.

150 Loreta, Pupils of Mrs.
a Engraving on wood. 422
b Lithographic work. 423

Photography.

151 Salazar, Miss.—Photographs. 430

Ceramic Decorations, Mosaics, etc.

152 Ramirez, Miss Soledad.—Cottage with clay figures. 454

153 Alcocer, Miss Antonia.—Fruits and flowers in wax. 454

Aerial, Pneumatic, and Water Transportation.

154 State Government of Campeche, Campeche City.—Model of a vessel. 594

154*a* Cesar, José Maria, City of Mexico.—Model of steam vessel. 595

Arboriculture and Forest Products.

155 State Government of Vera Cruz.—Woods. 600

156 State Government of Puebla.—Woods. 600

157 State Government of Yucatan.—Woods. 600

158 State Government of Campeche.—Woods. 600

159 State Government of Mexico.—Woods. 600

160 State Government of Hidalgo.—Woods. 600

161 State Government of Colima.—Woods. 600

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Agricultural, Animal, Vegetable Products.

163 State Government of Morelos.—Woods. 600
165 Jimenez, J., Cuernavaca City.—wood. 600
166 Vallarta, L. Y.—Aloes, aromatic Woods. 600
167 State Government of Oaxaca.—Indigo. 602
168 State Government of Colima.—Indigo. 602
169 Society of Natural History.—Gums and resins. 603
169*a* State Government of Oaxaca, Oaxaca City.—Resins. 603
196*a* State Government of Campeche, Campeche City.—Caoutchouc. 603

Agricultural Products.

170 Legarreta, A., Queretaro.—Cereals. 620
171 Cuevas Bros.—Wheat. 620
172 State Government of Puebla.—Cereals. 620
173 State Government of Hidalgo.
a Cereals. 620
b Coffee. 623
174 State Government of Morelos.—Cereals. 620
174*a* Coahuistla Hacienda, State of Mexico.—Wheat. 620
175 Society of Natural History.—Cereals. 620
176 Cirilo, Mingo.—Córdoba coffee. 623
177 Cuantecomatan Co., Colima City.—Coffee. 623
178 Canedo, Señor.—Cigars and cigarettes. 623
179 Martinez de la Forre, City of Mexico.—Cigars and tobacco-leaf. 623
180 Gardida, Thomas.—Tobacco and cigars. 623
181 State Government of Vera Cruz.—Coffee. 623
182 State Government of Mexico.—Coffee. 623
182*a* State Government of Yucatan.—Coffee. 623
182*b* Ortiz, Anastacio, City of Mexico.—Tobacco. 623
183 Balza Bros.—Cigars. 623
184 Lascurain & Co.—Cigars, cigarettes, etc. 623
185 Cainzo, Antonio.—Tobacco, etc. 623
186 Madrazos & Co.—Tobacco, etc. 623
187 Asylum for the Poor, State of Puebla.—Cigars, tobacco, etc. 623
188 Escobedo Gral, State of Michoacan.—Coffee. 623
189 Santiago Villa, Vera Cruz.—Córdoba coffee. 623

Animal and Vegetable Products.

190 Severino, Perez.—Pipitza-huina (a new vegetable base). 650
190*a* Garcia, Hilario, City of Mexico.—Skins. 652
191 State Government of Oaxaca.—Skins. 652
192 State of Colima.—Skins. 652
193 State of Puebla.—Skins. 652
194 State Government of Yucatan.—Skins. 652
195 State Government of Morelos.—Beeswax. 654
196 State Government of Hidalgo.—Beeswax. 654
196*a* State Government of Oaxaca, Oaxaca City.—Beeswax. 654
196*b* Preparatory School, Mexico City.—Beeswax. 654
196*c* State Government of Hidalgo.—Vegetable wax. 654
196*d* Society of Natural History, City of Mexico.—Vegetable wax. 654
197 State Government of Yucatan.—Oil of the insect niin, used for burnishing metallic instruments. 657
198 Torres, N., Puebla City.—Flour. 657
199 Society of Natural History.—Farina. 657
200 Ycazbalcata & Garcia.—Sugar. 659
201 State Government of Coahuila.—Preserved fruits. 659
202 State of Puebla.—Sugar. 659
203 Zerango Hacienda.—Sugar. 659
203*a* State Government of Yucatan, Morida City.—Sugar. 659
204 Oacalco Hacienda, State of Morelos.—Sugar. 659
205 Goribar, Faustino.—Sugar. 659
206 Clara Santa Hacienda.—Sugar. 659
207 Atlihuayan Hacienda.—Sugar. 659
207*a* Ferrer, Ignacio, City of Mexico.—Chocolate. 659
208 Campos, Fernande.—Feguila liquor. 660
208*a* State Government of Yucatan.—Sugar. 659
209 Paraiso Factory, Campeche Distillery.—Whisky. 660
210 Ylizalituvú, Rivera.—Pulque (agave liquor). 660
211 Cortez, Agapito.—Wines. 660
212 Royo, Remegio, State of Coahuila.—Grape wines from Parras. 660
213 Barreda, C.—Alcohol. 660
214 Martinez, J. M.—Jehuacan Puebla wines. 660
215 Boeza, Simon.—Wines. 660
216 Society of Natural History.—Vegetable oils. 662
217 Canas, Eduardo.—Olive oil. 662
218 Morril, A.—Vegetable oils. 662
219 Jaspeado, J.—Olive oil. 662
220 State Government of Yucatan.—Ricino oil. 662
221 Sayo, Vega de la, City of Mexico.—Vegetable oil. 662
221*a* Cordera, Manuel, City of Mexico.—Vegetable oil. 662

Textile Substances of Animal or Vegetable Origin.

222 State Government of Morelos, Cuernavaca City.—Cotton. 665

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Textile Fibres, Agricultural Engineering, Botanical Collections.

222*a* State of Coahuila, Saltillo City.—Cotton. 665

222*b* Pereda, Blas, San Luis Potosí City.—Cotton. 665

222*c* State Government of Campeche, Campeche City.—Cotton. 665

222*d* State Government of Hidalgo.—Cotton. 665

222*e* Herrera, Alfonso, Mexico City.—Products of chayote plant. 666

222*f* State Government of Oaxaca, Oaxaca City.—Vegetable fibres. 666

222*g* Juarez, T., Texcoco City.—Hemp. 666

223 State of Yucatan.—Fibres. 666

224 Cabo, J. de Villa.—Strings and cords. 666

225 State of Hidalgo.—Fibres of the Mexican maguey. 666

226 Lopez, Miguel.—Cords from the fibres of the agave. 666

227 Society of Natural History.—Wild silk. 668

Agricultural Engineering and Administration.

228 Gomez, Z., City of Colima.—Agrometre. 680

228*a* Rul, Miguel.—Photographic views of agricultural works and farms. 683

Horticulture.

229 Preparatory School of the City of Mexico.—Botanical collection of the Valley of Mexico. 709

230 Barcena, Marinana.—Botanical map of the State of Queretaro. 709

231 Ocampo, Miss J.—Botanical collections. 709

232 State Government of Mexico.—Botanical collections. 709

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

SPAIN.

(*South of Nave, Columns 16 to 18.*)

Chemical Manufactures.

Chemical Manufactures.

1 **Community of Heirs of Añana, Salinas de Añana**, Province of Alava.—Salt obtained by filtering and by evaporation. 200

2 **Salines of Torrevieja**, Province of Alicante.—Salt. 200

3 **Rosa Martinez, Joaquin de la, Berja**, Province of Almería.—Syrup of proto-iodide of iron and of ferruginous Peruvian bark. 200

4 **Zabala Iñiguez, Justo, Dalias**, Province of Almería.—Syrup of ferruginous Peruvian bark and concentrated essence of sarsaparilla. 200

5 **Padilla, Francisco, Almería.**—Carbonate of lead. 200

6 **Sureda & Villalonga, Juan, San José, Ibiza, Baleares.**—Chloride of sodium. 200

7 **Estruch & Co., Andrés, Barcelona.**—Manure. 200

8 **Tobella & Argila, Francisco, J., Hospital de Llobregat**, Province of Barcelona.—Manure. 200

9 **Medinaceli, Duchess, Cardona**, Province of Barcelona.—Sal gemma. 200

10 **Sanchez, Miguel, Barcelona.**—Mineral and sea salt. 200

11 **Pons, Bartolomé, Sans**, Province of Barcelona.—Cream of tartar and tartar crystal. 200

12 **Fortuny Bros., Barcelona.**
a Magnesia, mustard paper, etc. 200
b Almond oil. 201

13 **Vte Mondova, Juan, San Juan**, Porto Rico.—Cocoa butter, orange-flower water, citrate of lime, ricinus oil, almond oil, cocoanut oil, essential oil of orange-flower and lemon. 200

14 **Dominguez, Celestino, Guyana**, Porto Rico.—Cocoa butter, castor oil, and tobacco pepper essence. 200

15 **Tauriño, Juan, Toledo.**—Remedy for deafness. 200

16 **Formiguera, G., Barcelona.**—Pastilles, extracts, oil, syrups, liniments, etc. 200

17 **Ferrer & Batlle, Barcelona.**—Chemical and pharmaceutical preparations. 200

18 **Arola, A., & Domenech, Francisco, Barcelona.**—Chemical and pharmaceutical preparations. 200

19 **Boada, G., & Travessa, Gracia, Prov**ince of Barcelona.—Sulphate of copper, chloride of tin, sulphuric acid, nitric acid, etc. 200

20 **Provincial Commission, Búrgos.**—Calcined and black animal bone. 200

21 **Regis Cisneros, Francisco, Búrgos.**—Cream of tartar. 200

22 **Bensusan, Antonio J., Puerto-Real**, Province of Cádiz.—Sea salt. 200

23 **Calle, Bernardo, M. de la, Cadiz.**—Sea salt. 200

24 **Hidalgo y Berjano, Eduardo, Sanlúcar de Barrameda**, Province of Cádiz.—Sea salt. 200

25 **Forner Sales, Domingo, Burriana**, Province of Castellon.—Orange flower and orange-flower water. 200

26 **Corporation of Minglanilla**, Province of Cuenca.—Sal gemma. 200

27 **Gamboa y Calvo, José, Villalcayado**, Province of Guadalajara.—Salt. 200

28 **Muñoz, Marcelino, Imon**, Province of Guadalajara.—Salt. 200

28*a* **Marin, Manuel, Córdoba.**—Essence of sarsaparilla, extract and syrup of eucalyptus, cod-liver oil, balsam opodeldoc, etc. 200

29 **Leon Teruel, José, Huelva.**—Salt obtained by evaporation. 200

30 **Lopez de Codes, Tomás, Isle of Cristina**, Province of Huelva.—Chemical guano. 200

31 **Tapia y Pereira, Pedro, Isle Cristina**, Province of Huelva.—Artificial guano. 200

32 **Soriano, Aniceto, Jaen.**—Salt obtained by evaporation. 200

33 **Tiburcio Escabias, José, Jaen.**—Salt. 200

34 **Miguel Garcia, Manuel de, Jaen.**—Salt. 200

35 **Mas, Ramon, Lérida.**—Barilla (impure soda). 200

36 **Arteche, Angel María, Azofra**, Province of Logroño.—Inalterable carbonate of iron. 200

37 **Baanante, Juan, Chantada**, Province of Lugo.—Mustard and cantharides powder. 200

38 **Armesto Vinuesa, Francisco, Mondoñedo**, Province of Lugo.—Peat. 200

39 **Delf Factory of Sargadelos, Cerro**, Province of Lugo.—Peat. 200

40 **Jorge de la Peña, José, Lugo.**—Peat. 200

41 **Puerta, Gabriel de la, Madrid.**—Emetic tartar. 200

42 **Canales, Juan Bautista, Málaga.**—Essence of lemon, citric acid. 200

43 **Fuentes & Sons, Palencia.**—Blister. 200

44 **Escarpizo, Lorenzana, Augusto, Cangas**, Province of Pontevedra.—Antiscorbutic and odontalgic elixir. 200

45 **Gonzalez, Domingo Cecilio, Salamanca.**—Nitrate of ammonia. 200

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Chemical Manufactures.

46 Santiago Fuentes, Ignacio, Salamanca.—Chromic acid, arseniate of iron, etc. 200

47 Villar, José, Salamanca.—Pharmaceutical preparations. 200

48 Delgado, Joaquin, Seville.—Inalterable syrups. 200

49 Vinet, Troviño, & Co., Seville.—Citric acid, hyposulphate of soda, etc. 200

50 Monge & Sanz, Bonifacio, Soria.—Digital, extract of digital, digitaline, essence of sarsaparilla, etc. 200

51 Cuchi y Deixens, Tomás, Tarragona.—Arsenic, extract of tar, and meat in powder. 200

52 Eyries, Agustin, Valladolid.—Phosphate of lime and nitrate of soda. 200

53 Flor Carenou, & Tur, Zaragoza.—Extract of liquorice. 200

54 Diaz & Acebedo, Cleto, Havana, Cuba.—Preservative to prevent oxidizing of metals. 200

55 Quesada & Garcia, Almería.—Soap. 201

56 Fuster, Francisco, Palma de Mallorca, Balearic.—Oil of sweet almonds. 201

57 Corps of Mountain Engineers, Lerma, Province of Búrgos.—Juniper oil. 201

58 Vega Grande, Count of, Las Palmas, Canaries.—Walnut oil. 201

59 Carné & Moreno, Tarancon, Province of Cuenca.—Soaps. 201

60 Yaniz, Ambrosio, Villar del Humo, Province of Cuenca.—Juniper oil. 201

61 Coco & Bro., Celestino, Ubeda, Province of Jaen.—Soaps. 201

62 Gil de Muro, Isidoro, Andújar, Province of Jaen.—Common soaps. 201

63 Mon, Celestino, Rivadeo, Province of Lugo.—Soaps. 201

64 Perez Villamil, José, Rivadeo, Province of Lugo.—Soaps. 201

65 Juliá y Garcia Nuñez, Eusebio, Madrid.—Soaps. 201

66 Yarritu, Sons of, Carabanchel Baio, Madrid.—Soap. 201

67 Saenz Martinez, José Benito, Málaga.—Stearine and candles. 201

68 San Roman, Pedro, Oviedo.—Prepared wax for the manufacture of matches. 201

69 Moneo & Mirat, Salamanca.—Soap. 201

70 Renau, Angel, Béjar, Province of Salamanca.—Soap. 201

71 Falcon, Ruiz & Llorente, Coca, Province of Segovia.
a Resin oil. 201
b Turpentine, varnish, and essence of turpentine. 202

72 Falcon, Ruiz & Llorente, Córdoba.—Resin and colophonium. 201

74 Astolfi, Cárlos, Seville.—Soap. 201

75 Conradi Bros., Seville.—Soap. 201

76 Conradi, Sons of J. B., Seville.—Soap. 201

77 Gasau, José Antonio, Seville.—Soap. 201

78 Carol & Co., Antonio, Reus, Province of Tarragona.—Soap. 201

79 Marca, Salvador, Reus, Province of Tarragona.—Soap. 201

80 Oliva, Salvador, Reus, Province of Tarragona.—Olive oil soap. 201

81 Zamora, Francisco, Reus, Province of Tarragona.—Soap. 201

82 Ruedas y Pedraza, Lorenzo, Toledo.—Soap. 201

83 Agudo, Gonzalez, Leandro, Valladolid.—Soap. 201

84 Girart, Nicolás, Regla, Island of Cuba.—Purification of burning gas. 201

85 Planella Roure, Alejandro, Barcelona.—Colors, varnishes, cardboards, and canvas for painting. 202

86 Perez Romero, Diego, Huelva.—Collodion and photographers' varnish. 202

87 Acero, Antonio, Jaen.—Peroxide of aluminous iron. 202

88 Alcaraz Angulo, José, Madrid.—Ink. 202

90 Grau y Puig, José, Seville.—Bitumen. 202

91 Corporation of Belilla Medina, Province of Soria.—Ochre. 202

92 Serra, Juan, Reus, Province of Tarragona.—Ink. 202

93 Magallon, Francisco, Zaragoza.—Ink. 202

94 Miró & Corominola, José, Barcelona.—Spanish hair-dye. 203

96 Avilés y Merino, Francisco, Córdoba.—Alcohol, orange-peel syrup, etc. 203

97 Garcia Martinez, Francisco, Santiago de Compostela.—Ether. 202

98 Villalon, Eduardo, Madrid.—Toilet waters and cream. 203

99 Huelin & Son, Guillermo, Malaga.—Extract of liquorice. 203

100 MacAndrews & Co., Coria, Province of Sevilla.—Liquorice. 203

101 Llofriu, Manuel, Seville.—Rice flour. 203

102 Delgado, Joaquin, Seville.—Depurative and regenerative essence. 203

103 Padilla, José, Seville.—Tincture Bismarck. 203

104 Burguillo, Castro, Joaquin, Seville.—Vegetable balsam. 203

105 Estivill, Antonio, Reus, Province of Tarragona.—Orange-flower water. 203

106 Gisbert & Soler, Juan, Torredembarra, Province of Tarragona.—Dentifrice powder and elixirs. 203

107 Orive, Salustiano, Bilbao, Province of Vizcaya.—Chemical and pharmaceutical products. 203

108 Saliaz, Juan Vicente, Havana, Island of Cuba.—Cosmetic. 203

109 Lasa y Elizondo, Dionisio, Tarazona, Province of Zaragoza.—Phosphoric wax tapers. 204

110 Artiz Antonio, Maria, Havana, Island of Cuba.—Phosphorus. 203

111 Arteaga & Jáuregui, Havana, Cuba.—Phosphorus. 204

112 Military Pyrotechny, Seville.—Fusees, quick-matches, and cartridges 204

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

113 Muñoz Iñiguez, José, Seville.—Rockets. 204

Ceramics—Pottery, Porcelain, Glass, etc.

115 Romeu & Barella, Hospitalet, Province of Barcelona.—Bricks and tiles. 206

116 Provincial Commission, Búrgos.
a Tiles, bricks, and pipes. 206
b Pottery. 210

117 Escudero, Pascual, Búrgos.—Bricks. 206

118 Bueso Fabregad, Vicente, Castellon.—Glazed tiles. 206

119 Fabregad & Co., Francisco, Castellon.—Glazed tiles. 206

120 Provincial Commission, Lugo.—Pottery. 206

121 Fernandez Castañeda, Telesforo, Las Rozas y Arroyo.—Tiles. 206

122 Ochoa, José María de, Segovia.—Bricks, tiles, and flagstones. 206

123 Carral, Widow of Ignacio, Segovia, —Tiles, flagstones, and bricks. 206

124 Corporation of Moron, Province of Seville.—Bricks and pipes. 206

125 Casado, Melchor, Dèbanos, Province of Soria.—Tiles, flagstones, and bricks. 206

126 Cucurny, Pablo, Barcelona.—Refractory earthenware. 207

127 Molás & Co., Barcelona.—Refractory clay. 207

128 Gomez, Sebastian, Trujillo, Province of Cáceres.—Earthenware. 207

129 Fernandez, Tomás, Trujillo, Province of Cáceres.—Earthenware. 207

130 Bueno, Remigio, Trujillo, Province of Cáceres.—Earthenware. 207

131 Fernandez, José, Trujillo, Province of Cáceres.—Earthenware. 207

132 Olago, Manuel, Trujillo, Cáceres.—Earthenware. 207

133 Olago, Juan, Trujillo, Province of Cáceres.—Earthenware. 207

134 Pajares, Juan, Arroyo del Puerco, Province of Cáceres.—Earthenware. 207

135 Bisier, Benito, Cuenca.—Manufactures of clay. 207

136 Corporation of Chiclana, Province of Cádiz.—Pitchers and pottery. 207

137 National Factory of Trubia, Oviedo.—Refractory bricks. 207

138 Sagarminaga, Gerardo, Muelas del Pan, Province of Zamora.—Refractory clay and crucibles. 207

139 Santigós & Co., Macías, Barcelona.
a Tiles. 208
b Crockery. 210

140 Barella, Joaquin, Hospitalet de Llobregat, Province of Barcelona.—Ceramics, ornaments and paving tiles. 208

141 Llevát & Son, Antonio, Reus, Province of Tarragona.—Mosaic. 208

142 Soto y Tello, Manuel, Seville.—Mosaic tiles. 208

143 Gonzalez, R., Valencia.—Enameled tiles. 208

144 Vives & Aspiroz, Rafael, Villa de Oliva, Province of Valencia.—Flags. 208

145 Diez Cataluña, Salvador, Manises, Province of Valencia.—Enameled tiles. 208

146 Nolla & Son, Miguel, Meliana, Province of Valencia.—Mosaic flagstones. 208

149 Girona y Mató, Ramon, Alcora, Province of Castellon.—Delft. 210

150 Aljama Moreno, Miguel, La Rambla, Province of Córdoba.—Pitchers. 210

151 Jimenez de García, Antonio, La Rambla, Province of Córdoba.—Pitchers. 210

152 Leon y Raigon, Antonio, La Rambla, Province of Córdoba.—Pitchers. 210

153 Provincial Deputation of Múrcia.—Delft. 210

154 Fuentes y Ponte, Javier, Múrcia.—Antique vases. 210

155 Association of Potters of Andújar, Province of Jaen.—Pots. 211

156 His Majesty the King of Spain, Madrid.—China. 213

157 Garcia Montalvan, Francisco, Seville.—Delft of earthenware. 213

158 Pickman & Co., Seville.—Delft and china. 213

159 Vallés & Sons, José, Barcelona.—Crystal. 214

160 Fernandez Castañeda, Telesforo, Las Rozas, Province of Santander.
a Plate glass. 214
b Crystal lantern. 216

161 Casademunt, Modesto, Barcelona.—Fine glass bottles for chemicals. 214

162 Fernandez Castañeda, Telesforo, Reinoso, Province of Santander.—Glass bottles. 214

163 Farris, A., & Co., Badalona, Province of Barcelona.—Crystal ware. 216

Furniture and Objects of General Use in Construction and in Dwellings.

165 Isaura, Francisco de Paula, Barcelona.—Objects of bronze and white metal. 217

166 Roberst, Epifanio, Barcelona.
a Dressing-table, couch. 217
b Picture frame. 220

167 Forzano Bros., Madrid.—Sideboard for dining-room. 217

168 Pascual y Granés, Pedro, Barcelona.—Window. 219

169 Molins, José, Havana, Cuba.—Impermeable wood curtains. 220

170 Gallardo Bastant, Luis, Barcelona.—Gas apparatus. 222

171 Isaura, Francisco de Paula, Barcelona.—Gas apparatus. 222

172 Metallurgical Society of San Juan de Alcaráz, Province of Albacete.—Manufactures of brass. 224

173 Riera, L. A., & Co., Arenys de Mar, Province of Barcelona.—Corks. 224

174 Moragrega & Soldevila, Tomás, Castellon.—Cork vessel. 224

175 Brochi, Juan, Havana, Cuba.—Tin cans for preserving fruits. 224

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Woven Goods.

176 Oyarzabal, Jorgé, Philadelphia, Pa. —Apparatus for serving ice cream. 224

Yarns and Woven Goods of Vegetable or Mineral Materials.

177 Beltran y Lopez, José, Elche, Province of Alicante.—Twine and string. 229

178 Fuentes Agulló & Bros., Francisco, Elche, Province of Alicante.—Palm leaf and articles manufactured from the same. 229

179 Más & Son, Manuel, Crevillente, Province of Alicante. — Esparto, rush, and bass fabrics. 229

180 Rampál, Juan, Elda, Province of Alicante.—Esparto mats and carpets. 229

181 Sevilla & Perez Bros., Monforte, Province of Alicante.—Baskets and ropes of green esparto. 229

182 Lopez, José, Badajoz. — Esparto matting. 229

183 Mora, Manuel, Badajoz.—Esparto and rush matting. 229

184 Amat, Gervasio, Gracia, Province of Barcelona.—Fine matting. 229

185 Martinez la Llana, Tiburcio, Cuenca.—Work basket. 229

186 Garcia Brito, Manuel, Córdoba.—Cyprus cable. 229

187 Arzalaya, Ramon de, Jaen.—Osier basket. 229

188 Gonzalez Maceda, Pedro, Villalba, Province of Lugo.—Horse-hair webs. 229

189 Huelin & Son, Guillermo, Almogia, Province of Málaga.—Palm baskets. 229

190 Corps of Mountain Engineers, Madrid.—Fabrics and ropes of esparto. 229

191 Provincial Deputation of Múrcia. —Esparto work. 229

192 Fernandez Bros. & Co., Aguilas, Province of Múrcia.—Mats. 229

193 Mazarrasa, Gregorio, Santander.—Osier basket. 229

194 Però & Buxeda, Barcelona.—Cotton textiles. 230

195 Pagés & Co., Salvador, Mataró, Province of Barcelona.—Bleached linen. 230

196 Oliver, Fonrodona, Mataró, Province of Barcelona.—Cotton canvas. 230

197 Volart Bros. & Conill, Barcelona.—Cotton fabrics. 230

198 Puig & Co., José, Esparraguera, Province of Barcelona. — Madapolans, etc. 230

199 Conti, Juan, Barcelona.—Cotton fabrics. 230

200 Ribot & Bros., Estéban, Granada. —Thread. 230

201 Roiz de la Parra, Gerónimo, La Cavada, Province of Santander.—Twisted cotton. 230

202 Solé, Estéban, Reus, Province of Tarragona.—Cotton. 230

203 Regordosa & Co., Mariano, Sans, Province of Barcelona.—Dyed cotton. 231

204 Parellada, Flaquer & Co., Sans, Province of Barcelona. — Cotton velvet. 231

205 Clariano Ciuró, Angé, & Co., Granollers, Province of Barcelona.—Cotton tartan. 231

206 Batlló Bros., Barcelona.—Cotton thread and fabrics. 231

207 Cavelles y Ferré, José, Reus, Province of Tarragona.—Serges, nankin, etc. 231

208 Ferrer & Co., José, Villanueva y Geltrù, Province of Barcelona.—Cretons, percales, etc. 232

209 Ferrer y Vidal, José, Barcelona.—Cretons, percales, etc. 232

210 Casas & Jovér, Joaquin, San Martin de Provencalls, Province of Barcelona.—Cotton prints. 232

212 Saladrigas Bros., Barcelona.—Cotton prints. 232

213 Jaumandreu & Co., Barcelona.—Cotton prints. 232

214 Achon, J., Barcelona.—Cotton prints. 232

215 Tolrá & Co., José, Barcelona.—Cretons and madapolams. 232

216 "España Industrial," Barcelona. —Dyed and printed cotton fabrics. 232

217 Torrelló & Co., Mateo, Barcelona. —Cotton prints. 232

218 Borrás, Eduardo, Barcelona.—Printed cotton shawls. 232

219 Ricart & Co., Barcelona.—Cotton prints. 232

220 Rivas & Co., Francisco, Barcelona. —Cotton prints. 232

221 Beltran y Lopez, José, Elche, Province of Alicante.—Hempen bags. 233

221*a* Igualadina, Algodonera, Barcelona.—Bleached linens. 233

222 Sadó, Jaime, Barcelona.—Table linen and towels. 233

223 Conti, Juan, Barcelona.—Drilling fabrics, for ladies' dresses, and Turkish towels. 233

224 Mestra Pedro, Barcelona.—Linen drilling. 233

225 Provincial Commission of Búrgos. —Linen cloth and towels. 233

226 Society of Friends of the Country Las Palmas, Canary Islands.—Pita cloth for girths. 233

227 Salomó & Co., Francisco Antonio, Vinaróz, Province of Castellon.—Canvas. 233

228 Bas y Verdera, Juan Bautista, Vinaróz, Province of Castellon.—Canvas. 233

229 Ribot & Bros., Estéban, Granada.—Saddle bag, hemp fabric, bags and hemp soles for sandals. 233

230 Igualada, Francisco, Seville.—Andalusian saddle-bag. 233

231 García Valdeavellano, J., Seville.—Table linen, etc., made on hand-loom. 233

232 Landa, Sons of Salvador, Calatayud, Province of Zaragoza.—Linen cloth. 233

233 Vega & Co., Seville.—Oil cloth. 234

Woven and Felted Goods of Wool and Mixtures of Wool.

234 Abad Bros., Vicente, Alcoy, Province of Alicante. — Edredon and paten cloth. 235

Woven Goods.

235 Boronás Soler, Antonio, Alcoy, Province of Alicante.—Lanilla cloth. 235

236 Hernandez Osa, Juan, Alcoy, Province of Alicante.—Paten cloth. 235

237 Candela, Miguel, Alcoy, Province of Alicante.—Paten cloth. 235

238 Cantó, Tomás, & Sons, Alcoy, Province of Alicante.—Paten cloth. 235

239 Gisbert Pascual, Camilo, Alcoy, Province of Alicante.—Paten cloth. 235

240 Jordá & Sons, José, Alcoy, Province of Alicante.—Paten cloth. 235

241 Llacer, Agustin, Alcoy, Province of Alicante.—Paten cloth. 235

242 Llopis & Son, Widow of C., Alcoy, Province of Alicante.—Paten cloth. 235

243 Mataix, Cristobal, Alcoy, Province of Alicante.—Paten, tricot, and edredon cloth. 235

244 Miró, Sons of Gabriel, Alcoy, Province of Alicante.—Paten, castor, and edredon cloth. 235

245 Pastor, Moltó, & Co., Alcoy, Province of Alicante.—Paten cloth. 235

246 Moltó y Sanz, José, Alcoy, Province of Alicante.—Satin. 235

247 Moltó y Valor, Francisco, Alcoy, Province of Alicante.—Tricot and paten cloth. 235

248 Monllor & Sons, Miguel, Alcoy, Province of Alicante.—Paten cloth. 235

249 Pascual & Co., Fabian, Alcoy, Province of Alicante.—Paten and edredon cloth. 235

250 Pascual, Santiago, Alcoy, Province of Alicante.—Paten cloth. 235

251 Perez & Son, Benito, Alcoy, Province of Alicante.—Corduroy cloth. 235

252 Perez, Sons of J., Alcoy, Province of Alicante.—Velvet cloth. 235

253 Poblet, Antonio, Alcoy, Province of Alicante.—Paten cloth. 235

254 Reig, Rafael, Alcoy, Province of Alicante.—Paten and velvet cloth. 235

255 Sanz & Sons, Widow of Felipe, Alcoy, Province of Alicante.—Paten cloth. 235

256 Vicedo, José, Alcoy, Province of Alicante.—Tricot. 235

257 Amores, Miguel, Badajoz.—Mantas cloth. 235

258 Clariana, Ciuró, Angé, & Co., Province of Barcelona.
a Woolen fabrics and cloths. 235
b Shawls. 237
c Mixed fabrics. 238
d Paten cloth. 241

259 Provincial Commission, Búrgos.—Woolen articles. 235

260 Mendiola & Co., Casimiro, Munilla, Province of Logroño.—Cloth, melton, tweeds etc. 235

261 Provincial Commission of Lugo.—Woolen fabrics. 235

262 Rodriguez Arias, Cipriano, Béjar, Province of Salamanca.—Cloth. 235

263 Rodriguez Bros., Béjar, Province of Salamanca.—Cloths. 235

264 Gonzalez Sanz, Luis, Riaza, Province of Logroño.—Cloths. 235

265 Sanz, Manuel, Molinos de Razon, Province of Soria.—Cloths. 235

266 Torre, José, Almenar, Province of Soria.—Cloths and woolen fabrics. 235

267 Tarrat & Sociats, Teruel.—Cloths. 235

268 Garcia Aranda, Antonio & Co., Sonseca, Province of Toledo.—Cloths. 235

269 Bonel & Sons, Benito, Tarazona, Province of Zaragoza.—Cloths. 235

270 Provincial Commission of Pradoluengo, Province of Búrgos.—Flannels. 236

271 Delgado & Co., Faustino, Antequera, Province of Málaga.—Flannels. 236

272 Moreno, Widow of, Antequera, Province of Málaga.—Flannels. 236.

273 Alia y Lopez, Miguel, Escalonilla, Province of Toledo.—Serge. 236

274 Delgado & Co., Faustino, Seville.—Waistbands. 237

275 Murtró y Turelló, Widow of A., Reus, Province of Tarragona.—Matafrios (waistbands). 237

276 Conti, Juan, Barcelona.—Woolen fabrics. 238

277 Planas, Sons of M., Sabadell, Province of Barcelona.—Woolen fabrics. 238

278 Sallares & Son, Juan, Sabadell, Province of Barcelona.—Woolen fabrics. 238

279 Buxeda Bros., Sabadell, Province of Barcelona.—Woolen fabrics. 238

281 Dalinau, José M., Barcelona.—Flannels. 238

282 Sert Bros. & Solá, Barcelona.—Woolen goods. 238

283 Badia, José, Sabadell, Province of Barcelona.—Woolen yarns. 238

284 Arañó, Enrique, San Martin de Provençals, Province of Barcelona.—Woolen yarns. 238

285 Bresca & Co., Province of Barcelona.—Merinoes. 238

286 Serret & Turull, Sabadell, Province of Barcelona.—Woolen shawls, etc. 238

287 Viejo, Isidoro, Búrgos.—Woolen blanket. 238

288 Blanco, Bartolina, Valverde del Camino, Province of Huelva.—Saddlebag. 238

289 Murtró Turelló, Widow of A., Reus, Province of Tarragona.—Cloak, tartans, woolen yarns, etc. 238

290 Clariana, Ciuró, Angé, & Co., Santa Coloma de Querals, Province of Tarragona.—Mixed fabrics, shawls, etc. 238

292 Casaramona, Juan, Barcelona.—Blankets and mantas. 238

293 Baucells & Co., Narciso, Barcelona.—Moleskins and mantas. 238

294 Serret & Turull, Sabadell, Province of Barcelona.—Woolen webs and shawls. 238

295 Viejo, Isidoro, Búrgos.—Mantas. 238

296 Nuñez Ramos, Francisco, Torrejoncillo, Province of Cáceres—Coarse cloth. 238

297 Moreno y Sanchez, Francisco, Torrejoncillo, Province of Cáceres.—Coarse cloth. 238

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45

Woven Goods, Silk.

298 Llanos de Pedro, José, Torrejoncillo, Province of Cáceres. — Coarse cloth. 238

299 Llanos Nuñez, Pedro, Torrejoncillo, Province of Cáceres. — Coarse cloth. 238

300 Llanos Valle, Sebastian, Torrejoncillo, Province of Cáceres.—Coarse cloth. 238

301 Llanos Moreno, Saturnino, Torrejoncillo, Province of Cáceres.—Coarse cloth. 238

302 Bonilla, Ramon, Torrejoncillo, Province of Cáceres.—Coarse cloth. 238

303 Serrano, Benito, Torrejoncillo, Province of Cáceres.—Coarse cloth. 238

304 Society of Friends of the Country, Las Palmas, Canary Islands.—Cloth. 238

305 Guimera Bro., Giner, Morella, Province of Castellon.—Woolen textile. 238

306 Provincial Board of Agriculture, Morella, Province of Castellon.—Woolen mantas. 238

307 Aparicio, Jaime, Córdoba.—Ends of cloth, and cloak. 238

308 Alvarez Otin Bros., Córdoba.—Mountain cloaks and jergas. 238

309 Corporation of Pozoblanco, Province of Córdoba.—Mantas and flannels. 238

310 Corporation of Bujalance, Province of Córdoba.—Mantas and jergas. 238

311 Corporation of Villa del Rio, Province of Córdoba.—Mantas, jergas, and mountain cloaks. 238

312 Cabezas, Sarabia, José, Córdoba. —Mountain cloak. 238

313 Provincial Deputation of Murcia. —Manta. 238

315 Fuentes, Maria, Prádanos, Province of Palencia.—Coarse cloth. 238

316 Garcia, Mauricio, Prádanas, Province of Palencia.—Coarse cloth. 238

317 Val, Angel, Prádanos, Province of Palencia.—Coarse cloth. 238

318 Martin, Domingo, Prádanos, Province of Palencia.—Coarse cloth. 238

319 Gomez, Andrés, Astudillo, Province of Palencia.—Cloth. 238

320 Olmeda, Faustino, Astudillo, Province of Palencia.—Cloth. 238

321 Sanmillan, Manuel, Astudillo, Province of Palencia.—Cloth. 238

322 Rodriguez Mambilla, Manuel, Astudillo, Province of Palencia.—Cloth. 238

323 Hera, Vicente de la, Palencia.—Mantas. 238

324 Arroyo, Gerónimo, Palencia.—Mantas. 238

325 Aguilar Calvo, Antonio, Amusco, Province of Palencia.—Flannel. 238

327 Corporation of Vitigudino, Province of Salamanca.—National manta and sayal. 238

329 Alia & Lopez, Miguel, Escalonilla, Province of Toledo.—Counterpane. 238

330 Maiquez y Tomás, T., Valencia.—Mantas and fabrics for upholstering. 238

331 Fernandez Laza, & Sons, M., Valladolid.—Manta. 238

332 Perdiguero, Guillermo, Valladolid. —Mantas. 238

332*a* Castell de Pons, Antonio, Barcelona.—Tapestry. 239

332*b* His Majesty the King of Spain, Madrid.—Tapestry from the royal factory, Madrid. 239

333 Alsina, Juan, San Andrés de Palomar, Province of Barcelona.—Velvets. 241.

334 Casanovas & Sons, Joaquin, Sabadell, Province of Barcelona. — Woolen cloths 241

336 Carominas, Salas, & Co., Sabadell, Province of Barcelona.—Woolen fabrics. 241

337 Durán, J., & Son, Sabadell, Province of Barcelona.—Woolen fabrics. 241

338 Montllor Bros., Sabadell, Province of Barcelona.—Cloths and woolen goods. 241

339 Volta Vivé, José, Sabadell, Province of Barcelona.—Woolen fabrics and fine woolen yarns. 241

Silk and Silk Fabrics.

340 Carrillo, Blas, & Co., Santa Cruz de la Palma, Canary Islands.—Yellow and White Silk. 242

341 Diaz Varela, Celestino, Sober, Province of Lugo.—Raw Silk. 242

342 Victor, Navarro, Pedro, Espinardo, Province of Múrcia.—Silks. 242

343 Martinez, Faustino, Seville.
a Raw silk. 242
b Silk thread and twist. 243
c Ribbons. 248

344 Oñate, Sons of, Valencia.
a Raw silk. 242
b Twisted Silk. 243

345 Piedrola, Juan de Dios, Granada. —Twisted silk. 243

346 Económica of Múrcia.—Silks and cord made of the gut of silkworms. 243

347 Andrion, Heirs of, Múrcia.
a Silks, twist, and cord. 243
b Silk purses. 247

350 Farriols & Sons, Barcelona.—Silk textile. 244

351 Provincial Deputation of Múrcia.—Silk taja (national waistband) and shawls. 244

352 Ferrer & Co., Joaquin, Barcelona. —Silk goods. 245

353 Gué & Co., G., Barcelona.—Silk goods. 245

354 Diaz Varela, Celestino, Sober, Province of Lugo.—Silk fabrics. 245

355 Freixa, Sebastian, Reus, Province of Tarragona.—Gró (silk fabric). 245

356 Pascual & Co., Antonio, Reus, Province of Tarragona.—Gró, glasé, and other silk fabrics. 245

357 Ibañez Palenclano, Fernando, Valencia.—Gró, taffetas, damasks, and poplins. 245

357*a* Rodriguez, Arias, Cipriano, Bejar, Province of Salamanca.—Satin. 245

358 Malvehy, Benito, Barcelona.—Silk goods. 246

359 College of Superior Works of Art in Silk, Barcelona.—Portrait of H. M. the King of Spain. 246

360 Reig & Co., Barcelona.—Silk fabrics. 246

361 Masoliver Bros., Barcelona.—Silk hosiery, etc. 247

362 Pascual & Co., Antonio, Province of Tarragona.—Velvets. 248

363 Piédrola, Juan de Dios, Granada.—Woven silk. 248

365 Blanco, Emilio, Seville.—Trimmings. 249

366 Sanchez, Francisco, Seville.—Trimmings. 249

Clothing, Jewelry, and Ornaments.

367 Solanas, Antonia, Barcelona.—Shirts. 250

367*a* Tarriba Pablos, Clemente, Palencia.—Embroidered Manta. 250

368 Escaler, Benito, Barcelona.—System of cutting garments. 250

369 Provincial Commission of Salas de los Infantes, Province of Búrgos.—National dress and photographs. 250

370 Corporation of Bujalance, Province of Córdoba.—Jacket. 250

371 Salgado Rodriguez, Rafael, Santiago, Province of la Coruña.—Jacket, pants, and vest. 250

372 Direction of Cavalry, Madrid.—Military equipment. 250

373 Gonzalez, Benito, Vilaboa, Province of Pontevedra.—Country woman's cloak, made of rush. 250

374 Luna, Ramon, Havana, Cuba.—Figure dressed in the uniform of a captain of volunteers. 250

375 Marfá, Cayetano, Mataró, Province of Barcelona.—Cotton hosiery. 250

376 Sala Baladia & Coll, Barcelona.—Cotton hosiery. 250

377 Oliver & Co., Mataró, Province of Barcelona.—Cotton shirts, hose, and socks. 250

377*a* García, Aranda, & Co., Antonio, Sonseca, Province of Toledo.—Working men's cloaks. 250

378 Beltran & Lopez, José, Elche, Province of Alicante.—Sandals and slip-shods. 251

379 Ceva y Llorens, Enrique, Elche, Province of Alicante.—Sandals. 251

380 Diaz Corrales, Antonio, Madrid.—Boots, shoes, and slippers. 251

381 Cardona Baldrich, José, Barcelona.—Corsets and waistbands. 251

382 Freixa & Son, Barcelona.—Boots, shoes, and gaiters. 251

383 Conde Puerto & Co., Barcelona.—Shirts. 251

384 Says, José, Barcelona.—Boots and shoes. 251

385 Verderau, Luis, Barcelona.—Shirts. 251

386 Provincial Commission of Búrgos.—Shoes, gloves, and caps. 251

387 Zamorano & Bros., Nemesio, Búrgos.—Kid gloves. 251

388 Bueso Herrando, José, Castellon.—Sandals. 251

389 Carpi, Vicente, jr., Castellon.—Sandals. 251

390 Provincial Board of Agriculture, Castellon.—Sandals. 251

391 Ruiz Vicent, Francisco, Castellon.—Sandals. 251

392 Verchili y Marqués, Francisco, Castellon.—Sandals for women. 251

393 Pintado y Morales, Luis, Ciudad-Real.—Hat. 251

394 Devesa Dominguez, José, Santiago, Province of Coruña.—Boots and shoes. 251

395 Rodriguez, Rafael, Coruña.—Boots and shoes. 251

396 Ribot & Bros., Estéban, Granada. Sandals and slip-shods. 251

397 Fernandez & Toscano, José Huelva.—Shoes and boot patterns. 251

398 Mantero & Asuero, Manuel, Valverde, Province of Huelva.—Riding-boots. 251

399 Montiel, José, Huelva.—Boots. 251

400 Acero & Son, José, Jaen.—Hats. 251

401 Ares, Rosendo, Villalba, Province of Lugo.—Clogs. 251

402 Fraga, José, Corpeito, Province of Lugo.—Clogs. 251

403 Pallares, Count of, Villalba, Province of Lugo.—Sabots. 251

404 Robledo, Luis Paulino, Fonsagrada, Province of Lugo.—Clogs. 251

405 Villasante, Francisco, Madrid.—Hats. 251

406 Huelin & Son, Guillermo, Málaga.—Palm-leaf hats. 251

407 Provincial Deputation of Múrcia.—Sandals. 251

408 Crespo, Melchor, Peñaranda, Province of Salamanca.—Hats. 251

409 Galindo, Rafael, Peñaranda, Province of Salamanca.—Hats. 251

410 Gonzalez, Fermin, Peñaranda, Province of Salamanca.—Hats. 251

411 Ralero, Epifanio, Segovia.—Shoes. 251

412 Chia & Ganga, Francisco, Seville.—Boots and shoes. 251

413 Gely Bros. & Co., Seville.—Kid gloves. 251

414 Sarton, Gregorio, Seville.—Hats. 251

415 Villen, José, Valencia.—Shoes. 251

416 Ronchetti Denti, B., Valladolid.—Gloves. 251

417 Stampa Bula, Felipe, Valladolid.—Gloves. 251

418 Iborna, Mateo, Zamora.—Hats. 251

419 Melendez Carvajal & Co., Havana, Cuba.—Hats. 251

420 Central Commission, Havana, Cuba.—Hats. 251

421 Garcia & Garcia, Juliana, Avila.—Lithographed embroidery. 252

422 Martinez, Rosamunda, Avila.—Silk embroidery. 252

423 Provincial Convent, Superior of, Avila.—Embroidered altar cloth. 252

424 Nin & Mañé, Benito & Luisa, Barcelona.—Embroidery. 252

425 Martí de Detrell, Dolores, Barcelona.—Embroidered sofa cushion. 252

426 Pi & Solanes, José, Barcelona.—Laces. 252

427 Tejada, Antolina, Cáceres.—Openwork. 252

428 Vidal, Rosa, Plasencia, Province of Cáceres.—Embroidered handkerchief. 252

429 Delgado, Rita, Alcalá de los Gazules, Province of Cádiz.—Counterpane. 252

430 Bianchi & Mellado, Pedro, Almagro, Province of Ciudad-Real.—Guipure and other laces. 252

431 Barinaga de Oteiza, Amalia, Madrid.—Embroidered tapestry. 252

432 Agudo, Asuncion, Madrid.—Embroidered handkerchief. 252

433 Guibelalde, Caledonia, Madrid.—Embroidered picture. 252

434 His Majesty the King of Spain, Madrid.—Embroideries for the lay brothers of San Lorenzo. 252

435 President of the Women's Catholic Association, Madrid.—Church ornaments. 252

436 Asylum of San Manuel, Málaga.—Handkerchief bag. 252

437 Asylum of Mendicity, Seville.—Embroidered shirt and handkerchief. 252

438 Eguiazu, Leon, San Sebastian, Province of Guipúzcoa.—Objects of damaskeened iron. 252

439 Ibarzabal de Eibar, Teodoro, San Sebastian, Province of Guipúzcoa.—Objects of damaskeened iron. 252

440 Feu, P. & Sons, Madrid.—Crosses and ornaments. 252

441 Hernandez, Demétrio, Salamanca.—Toothpick case, of filigree silver. 252

442 Morán, Ramon S., Salamanca.—Cross and earrings. 252

443 Fernandez de Sola, Dolores, Madrid.—Embroidered shawls and other embroideries. 252

444 Martinez, Rosmunda, Avila.—Basket of wax grapes. 254

445 Garcia & García, Julia, Avila.—Branch of flowers. 254

446 Garcia, Cristina, Badajoz.—Embroidered picture. 254

447 Lucenqui de Pimentel, Walda, Badajoz.—Paper pictures and album of design. 254

448 Oriol, Son of J., Barcelona.—Fans, umbrellas, and sunshades. 254

449 Riba Bros., Barcelona.—Hooks and eyes, and buttons. 254

450 Provincial Commission, Vivero, Province of Lugo.—Basket and needle-case of straw. 254

451 Feu, P., & Sons, Madrid.—Buttons. 254

452 Gutierrez, Juan Enrique, Madrid.—Fan. 254

453 Mozoncillo, Concepcion, Madrid.—Paper fan. 254

454 Gonzalez, Maria Cruz, Madrid.—Sunshade of embroidered satin. 254

455 Villalón, Eduardo, Madrid.—Human hair work. 254

456 Peña, Pantaleon, Madrid.—Wigs, human hair, album, etc. 254

457 Rey Gomez, Andrés, Presidio de Santoña, Province of Santander.—Lady's work-box, covered with straw. 254

458 Gimenez, Justo, Presidio de Santoña, Province of Santander.—Glove-box, covered with straw. 254

459 Fraola, José, Santoña, Province of Santander.—Bottles, covered with straw. 254

460 Bernbal, Manuel, Santoña, Province of Santander.—Straw hampers. 254

461 Urbina, Meliton, Santoña, Province of Santander.—Hampers and match-box, of straw. 254

462 Plaza, Salvador de la, Riaza, Province of Segovia.—Pins. 254

463 Soto & Barrera, Matilde, Toledo.—Flower basket. 252

464 Sans de Mardevall, Alejandro, Valencia.—Fans. 254

465 Massaguer & Lledó, Valencia.—Fans. 254

466 Noailles, Antonio, Zaragoza.—Canes and cane-heads. 254

467 Salvi y Don Antonio, Barcelona.—Combs of horn and tortoise shell. 254

468 Sabato Bros., Barcelona.—Leather belting. 254

469 Ribot & Bros., Estéban, Granada.—Portmanteau. 254

470 Martinez, Benito, Seville.—Leather trunks. 254

471 Yavas, Francisco, Barcelona.—Toys. 254

472 Casas, José, Havana, Cuba.—Hair work. 254

473 Fuentes & Ponte, Javier, Múrcia.—Embroidered belt, cap, sandals, and photographs of national costumes. 257

474 Becerra & Gomez, Braulio, Vidriales, Province of Zamora.—Dress worn in the valley of Vidriales. 257

475 Perez, Miguel, Carvajales, Province of Zamora.—Cloak. 257

476 Heras, Elena de las, Almeida, Province of Zamora.—Complete woman's dress. 257

Paper, Blank Books, and Stationery.

477 Quintana, Juan de, Las Palmas, Canary Islands.—Blotting sand. 258

478 Ferrer & Son, Widow of, Alcoy, Province of Alicante.—Cigarette paper. 259

479 Blanes Bros., Alcoy, Province of Alicante.—Cigarette paper. 259

480 Payá & Gisbert, Facundo, Cocentaina, Province of Alicante.—Cigarette paper. 259

481 Romani & Puigdengolas, Juan, Capellades, Province of Barcelona.—Paper. 259

482 Vila & Son, Cristóbal, Capellades, Province of Barcelona.—Paper. 259

483 Valadia, Conradó, Barcelona.—Cigarette paper. 259

484 Capdevila & Co., Barcelona.—Paper. 259

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Stationery, Weapons, Medical and Surgical Appliances.

485 Villaseca & Pniggene, José, Barcelona.—Paper. 259

486 Ruis & Co., Pedro, Barcelona.—Cigarette paper. 259

487 Guarro, Wenceslao, Gélida, Province of Barcelona.—Paper. 259

488 Ferrer & Roca, Widow of F., Capellades, Province of Barcelona.—White and colored paper. 259

489 Romani & Tarres, Sons of, Capellades, Province of Barcelona.—Paper. 259

490 Prats, Widow & Sons of José, Capellades, Province of Barcelona.—Card-board for the manufacture of playing-cards. 259

491 Provincial Commission, Búrgos.—Writing-paper. 259

492 Torras Bros., San Juan las Fonts, Province of Gerona.—Writing-paper. 259

493 Riber & Co., Widow & Sons of José, Segovia.—Cigarette paper. 259

494 Garcia Martin, Modesto, Segovia.—Cigarette paper. 259

495 Gavarra & Son, Jaime, Reus, Province of Tarragona.—Cigarette paper. 259

496 Gavaarro, Mora, José, Bocayrente, Province of Valencia.—Cigarette paper. 259

497 Comas Delgado, Rafael, Onteniente, Province of Valencia.—Cigarette paper. 259

498 Pesquera, Alonzo, Miguel, Sardon del Duero, Province of Valencia.—Cigarette paper. 259

499 La Peña, Partners of, Bilbao, Province of Vizcaya.—Cigarette paper. 259

500 Provincial Commission, Búrgos.—Printing paper. 260

501 Coromina & Antiga, San Juan las Fonts, Province of Gerona.—Straw paper. 260

502 Martinez Lopez, Francisco, Caravaca, Province of Múrcia.—Brown paper. 260

503 Fulladosa & Co., Barcelona.—Playing-cards. 262

504 Inclán, Ramon, Yoca de Juarros, Province of Búrgos.—Card-boards. 262

505 Olea, Segundo of, Cádiz.—Complete pack of cards. 262

506 Maffei, Patrocinio, Cádiz.—Complete pack of cards. 262

507 Loix, Francisco, Rivadeo, Province of Lugo.—Papier-maché. 262

Military and Naval Armaments, Ordnance, Firearms, and Hunting Apparatus.

508 Metallurgical Company of San Juan de Alcaráz, Province of Albacete.—Cartridges for the Remington system. 265

508*a* Bronze Foundry, Seville.—Shells and canister shot. 265

509 Soldevilla, Estanislao, Madrid.—Double-barreled pistols. 265

510 National Manufactory of Firearms, Oviedo.—Rifle parts. 265

511 Manufactory of Arms, Toledo.—Remington cartridges. 265

512 Museum of Artillery, Madrid.—Bronze gun and accessories. 266

513 Artillery Corps, Seville.—Plasencia gun and accessories. 266

514 National Manufactory of Trubia, Province of Oviedo.—Carriage for eight centimeter mountain gun. 266

515 Manufactory of Side-arms, Toledo.—Side-arms. 268

516 Nieulant, Count of, Valencia.—Bayonet. 268

517 Manufactory of Arms, Toledo.—Hunting knife, Arabian sword blade, gumia (dagger) blade, and dagger. 268

518 Harzabel, Teodoro, San Sebastian, Province of Guipiuzcoa.—Sword, dagger, and shield. 268

519 Osorio, Fernando. Madrid.—Pistols. 269

520 Fabra, Camilo, San Martin de Provençals, Province de Barcelona.—Mechanical fishing-rods. 270

521 Alien, Pedro, Gracia, Province of Barcelona.—Mechanical and hand fishing rods. 270

522 Roca Bros., Múrcia.—Wormgut fishing line. 270

Medicine, Surgery, Prothesis.

523 Arnaus, Melchor, Sabadell, Province of Barcelona.—Odontalgic elixir. 272

524 Gener, Pompeyo, Barcelona.—Medicinal syrups. 272

525 Terrades & Vallmana, Jaime, San Feliu de Guixol, Province of Gerona.—Liquid vulcanized sulphur. 272

526 Rubio Perez, Juan, Granada.—Essences, pastilles, syrups, and extracts. 272

527 Martinez, Cárlos, Madrid.—Cicatrisant preparation. 272

528 Zaragoza, Manuel, Málaga.—Balsams, unguent, and Zaragoza waters. 272

529 Orduña, Calixto, Cascante, Province of Navarra.—Poppy capsules. 272

530 Gibert & Soler, Juan, Torredembarra, Province of Tarragona.—Lemon essence. 272

531 Corporation of Vinuesa, Province of Soria.—Chamomile. 272

532 Pelaez, Raphael, Havana, Cuba.—Balsam. 272

533 Serra & Font, José, Sabadell, Province of Barcelona.—Stomach liquor. 273

534 Casademont, Modesto, Barcelona.—Apparatus for the finishing of pills. 274

535 Revuelta Carrillo & Montes, Doctor, Jerez de la Frontera, Province of Cadiz.—Uteroscope. 276

536 Gastaldo, Doctor José, Madrid.—Blepharotome. 276

537 Pozuelo & Canto, Francisco, Madrid.—Gynecological apparatus. 276

538 Losada, Leocadio, Palacios de Goda, Province of Avila.—Set of teeth, atmospheric pressure. 277

539 Garcia, Martinez Francisco, Santiago de Compostela, Province of Coruña.—Superior set of teeth, atmospheric pressure. 277

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Surgical Appliances, Hardware, Harness, Art.

540 Centeno, Luis, Seville.—Anatomical piece, and set of artificial teeth. 277

541 Valenzuela, Manuel, Seville.—Set of artificial teeth. 277

542 Military Park of Health, Madrid.—Sanitary material. 278

Hardware, Edge Tools, Cutlery, and Metallic Products.

543 Corporation of Bujalance, Province of Córdoba.—Gimlets for hard woods. 280

544 Cabeza, Angel, Husillos, Province of Palencia.—Hammers. 280

545 National Factory of Trubia, Province of Oviedo.—Files. 280

546 Rosa & Carin, Jaime, Torres-Torres, Province of Valencia.—Watchmaker's tool. 280

547 Metallurgical Co. of San Juan de Alcaráz, Province of Albacete.—Knockers, door knobs, latches, bolts, etc. 284

548 His Majesty the King of Spain, Madrid.—Locks and ornamental ironwork for dwellings. 284

549 Corcho, Domingo, Santander.—Bronze nails. 284

550 Flechoso, Gregorio, Santander.—Key and latch. 284

551 Benito, Santiago de, Escorial, Province of Madrid.—Lock and padlock. 284

552 Metallurgical Co. of San Juan de Alcaráz, Province of Albacete.—Collection of objects of metal. 284

Carriages, Vehicles, and Accessories.

553 Feuntes & Ponte, Javier, Múrcia.—Piece from the body of an antique coach. 292

Machines and Implements of Spinning, Weaving, Felting, and Paper-making.

569 Alberiel, José Carreras.—Harness and reeds for looms. 521

Machines, Apparatus, and Implements used in Sewing and Making Clothing and Ornamental Objects.

570 Escuder y Castella, Miguel.—Sewing machines. 531

Motors and Apparatus for the Generation and Transmission of Power.

571 Bentaból y Ureta, Horatio, Madrid.—Apparatus for the rectilinear transmission of power.

554 Saiz, Juan, Búrgos.—Saddle armor. 296

555 Direction General of Cavalry, Madrid.—Complete mounting. 296

556 Rodriguez Zurdo, José, Madrid.—Ladies' saddles, with bridles, bits, etc. 296

557 Diaz, Antonio, Málaga.—Andalusian harness. 296

558 Fuentes & Ponte, Javier, Múrcia.—Soft skin put on the forehead of working oxen to prevent their being hurt by the yoke; halter, breast-leather, crupper. 296

559 Rio, Rafael del, Peñaranda de Bracamonte, Province of Salamanca.—Hemp bridles. 296

560 Muñoz, Bruno, Penaranda de Bracamonte, Province of Salamanca.—Horse cover. 296

561 Martin & Bros., Demétrio, Peñaranda de Bracamonte, Province of Salamanca.—Horse cover. 296

562 Aranda & Co., Garcia, Antonio, Sonseca, Province of Toledo.—Horse covers. 296

Miscellaneous Art Objects.

563 Feu, P., é hijos, Madrid.—Collection of medals. 454

564 Gelabert, R. y hermano, Barcelona.—Ornamental models in frames. 454

565 Latles, Marcos, Madrid.—Four shields; coat of arms; six frames, with subjects in bronze. 454

566 Pando, Acha y Garcia, Seville.—An ornamented iron frame. 454

567 Metallic Co. of San Juan de Alcaraz, Province of Albacete.—Collection of metallic objects. 454

568 Harzahal, Teodoro, St. Sebastian, Province of Guipuzcoa.—Sword, knife, and shield. 454

Railway Plant, Rolling Stock, and Apparatus.

572 Campos, Manuel Maria, Habana, Cuba.
- *a.* Models of wagons. 571
- *b.* System of movable rails. 574

Aerial, Pneumatic, and Water Transportation.

573 Ballesteros, Elias Aurelio, Madrid—Apparatus for ærial navigation. 592

576 Arozena, Sebastian, Santa Cruz de Palma, Canary Islands.—Designs and models of boats and vessels. 594

For classes of exhibits indicated by numbers at end of entries, see Classification, pp. 27-45.

PHILIPPINE ISLANDS.

(*South of Nave, Columns 16 to 18.*)

COLLECTIVE EXHIBIT.

Chemical Manufactures, Woven Goods.

Chemical Manufactures.

1 Inspection-General of Woods & Forests.—Ashes. 200

2 Rodriguez, Lucia, Province of Pampanga.—Tintarron. 202

3 Buison, Nicasio, Province of Bataan.—Tantarron. 202

4 Gonzalez, Mariano, Province of Santa Cruz, Province of Manila.—Japan varnish. 202

5 Rodriguez, José, Province of Ilocos Sur.—Indigo. 202

6 Rodoreda, Francisco, Province of Manila.—Indigo. 202

7 Llamas, Gabriel de, Province of Manila.—Balsam Dugtungajas. 203

8 Gruppe, Gustavo, Province of Manila.—Philippine drugs. 203

9 Reymann, Oscar, Province of Manila.—Philippine essences. 203

0 Westernhagen, Agustin, Province of Manila.—Philippine essences. 203

11 Provincial Board, Province of Batangas.—Balsam maria, and Pacayaus. 203

Yarns and Woven Goods, of Vegetable or Mineral Materials.

12 Alibalas, Crisanto, Province of Bulican.—Buri mats. 229

13 Gil, Rafael, Province of Pampanga. —Buri brooms. 229

14 Villamarzo, Tiburcio, Province of Tayabas.—Buri mats. 229

15 Oliveros, Miguel, Province of Pampanga.—Buri mats and bags. 229

16 Buison, Julian, Province of Pampanga.—Buri mats. 229

17 Rojas, Juan M., Province of Pangasinan.—Buri mats and Saguran matting. 229

18 Vera Bauton, Maria, Province of Albay.—Work baskets. 229

19 Ramos, José, Province of Bohol.— Saguran mats. 229

20 Provincial Board, Province of Masbate.—Nito baskets. 229

21 Provincial Board, Province of Mindoro.—Basket of cane and nito. 229

22 Provincial Board, Province of Bohol.
- *a* Sagurang, Sabatan mats and buri bags. 229
- *b* Buri and sinamay fabrics. 233

23 Provincial Board, Province of Batangas.
- *a* Buri mats. 220
- *b* Cotton fabrics. 230
- *c* Sinamay, Guinaras, and Jusi fabrics. 233

24 Provincial Board, Province of Antigua.
- *a* Cocoa basket. 229
- *b* Cotton fabrics and counterpanes. 230
- *c* Abacá, sinamay, piña and jusi fabrics. 233

25 Villamen, Clemencia, Province of Batangas.—Cotton bagging. 230

26 Bravo, Fr. Antonio, Province of Pampanga.—Cotton tapestry. 230

27 Gomez, Nepomuceno, Province of Pampanga.—Cotton towels and napkins. 230

28 Martinez, Margarita, Province of Ilocos Sur.—Cotton fabrics. 230

29 Batlle y Hernandez, José Paoay, Province of Ilocos N.—Cotton blanket. 230

30 Prado, Margarito, Province of Antigua.—Cotton towel. 230

31 Simson, Alexandra, Province of Ilocos Sur.—Cotton fabric. 230

32 Mendez, Bartolomé A., Province of Batangas.—Cotton fabric. 230

33 García, Cipriana, Province of Pampanga.
- *a* Cotton napkins and fabric. 230
- *b* Fabrics of pineapple leaf fibres. 233

34 Dumayuga, Procesa, Province of Batangas.
- *a* Cotton handkerchief and saya (native garment). 230
- *b* Abacá fabrics, and shirt of sinamay. 233

35 Provincial Board, Province of Mindanao.
- *a* Cotton fabrics. 230
- *b* Dyed cotton fabrics. 230
- *c* Guinaras fabric. 233

36 Governor and Municipality of San Pedro, Province of Antigua.
- *a* Cotton counterpanes. 231
- *b* Fabrics of sinamay and pineapple leaf fibres. 233

37 Reyes, Juana, Province of Batangas. —Abacá shirting. 233

38 Agregado, Angel, Province of Batangas.—Abacá shirting. 233

39 Sangalan, Maria, Province of Batangas.—Towels. 233

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Woven Goods, Silk, Clothing, Fancy Articles.

40 Governor and Municipality of Libalon, Province of Antigua.—Sinamay fabric. 233

41 Quiamson, Lázaro, San José, Province of Cavite.—Sinamay fabric. 233

42 Governor and Municipality of Sibalon, Province of Antigua.—Sinamay fabric. 233

43 Rania, Tio de la, Province of Iloilo. —Sinamay fabric and piña and jusi handkerchiefs. 233

44 Calacao, Apolinario, Province of Iloilo.—Sinamay fabric. 233

45 Provincial Board, Province of Samar.—Jusi fabric. 233

46 Feced, José, Province of Manila.—Piña and abacá fabrics. 233

47 Flores, Segunda, Manila, Province of Manila.—Sinamay fabric, and jusi shirt and handkerchief. 233

48 Temprado, Ramon F., Province of Camarines Sur.—Handkerchiefs of pineapple leaf fibres and sinamay. 233

49 Prieto, Federico, Province of Albay. —Abacá fabric. 233

50 Gallegos, Tomás, Province of Albay. —Sinamay fabric. 233

51 Roca, Joaquim E. de, Province of Albay.—Guinaras fabric. 233

52 Prieto, Federico, Province of Albay. —Jusi fabric. 233

53 Yuson, Plácido, Province of Iloilo. —Jusi fabric. 233

54 Riosa, Juana, Province of Albay.—Jusi fabric. 233

55 Hernandez, Telesforo, San José, Province of Batangas.—Jusi fabric. 233

56 Guevara, Saturnino, Province of Ilocos Sur.—Fabric of pineapple leaf. 233

57 Provincial Board, Province of Leyte. —Sinamay and guinaras fabrics. 233

58 Provincial Board, Province of Tayabas.—Fabric of pineapple leaf and sinamay. 233

59 Gonzalez J., Dolores, Province of Batangas.—Jusi handkerchiefs. 233

60 Provincial Board, Province of Albay. —Sinamay fabric. 253

Silk and Silk Fabrics.

61 Provincial Board, Province of Pampanga.—Silk tapestry. 246

62 Bravo, Antonio, Macabebe, Province of Pampanga.—Silk handkerchief. 247

63 Provincial Board, Province of Batangas.—Silk handkerchiefs. 247

64 Flores, Segunda, Manila, Province of Manila.—Silk saya. 247

65 Gomez, Nepomuceno, Province of Pampanga.—Silk handkerchiefs. 247

66 Feced, José, Province of Manila.—Silk handkerchief. 247

Clothing, Jewelry, and Ornaments; Traveling Equipments.

67 Reyes, Juana de los, Province of Batangas.—Cotton pantaloons. 250

68 Saludares, Wenceslao, Province of Tayabas.—Nito and panday hats. 251

69 Esteves, Fr., Province of Albay.—Nito hat. 251

70 Rosales, Gregoria, Province of Tayabas.—Buri hats. 251

71 Arguin, Eustaquio, Province of Tayabas.—Nito webs. 251

72 Gallego, Tomás, Province of Albay. —Nito hat. 251

73 Provincial Board, Province of Manila.
- *a* Nito hats, sandals, and clogs. 251
- *b* Nito cigarette cases. 254

74 College of St. Isabel, Province of Manila.
- *a* Sandals for women. 251
- *b* Embroidered velvet watch-stand. 252
- *c* Pictures of artificial flowers and hair-work. 254

75 Prieto, Federico, Tabaco, Province of Albay.
- *a* Nito and Buri hats. 251
- *b* Nito cigarette cases. 254

76 Rojas, Juan M. de, Province of Pangasinan.
- *a* Buri and Nito hats. 251
- *b* Buri, Nito, and Uay cases. 254

77 Martinez, Dorotea, Province of Batangas.—Embroidered silk bag. 252

78 Mendoza, Perfecta, Province of Manila.—Picture and embroidered pin-cushion. 252

79 Morales, Lucina, Santa Cruz, Province of Manila.—Embroidery. 252

80 Dávila, Teodora, Navotas, Province of Manila.—Embroidered shawl. 252

81 Trinidad, Maria, Province of Batangas.—Silk bag embroidered with gold. 252

82 Badon, Bartolomé, Province of Camarines Sur.—Embroidered sleeves made of pineapple leaf fibres. 252

83 Batlle y Hernandez, José, Hermita, Province of Manila.—Embroidered handkerchiefs made of pineapple leaf fibres. 252

84 Provincial Board, Lucban, Province of Tayabas.—Buri cases. 254

85 Cadeliñio, Pedro, Province of Tayabas. — Salacot (natural head-dress) of horn. 254

86 Feced, José, Province of Manila.—Tobacco and cigarette cases. 254

87 Vidal, Balinag, Province of Bulacan.—Nito cases. 254

88 Garcia, Cipriano, Province of Pampanga.—Silk purses with silver rings. 254

89 Reyes, Laureana; Huerto, Josefa; Martinez, Arcadia; Bello, Toribia, Province of Batangas. — Ornaments of fish scales. 254

90 Provincial Board, Province of Batangas.— Picture of artificial branches. 254

91 Ilustre, Gregoria, Taal, Province of Batangas.—Ornament of glass beads. 254

92 Uson, Antonio, Province of Ilocos Sur.—Pipes, buttons of buffalo horn, gold-headed coral cane. 254

93 Provincial Board, Province of Manila. — Tortoise-shell combs and horn drinking-cups. 254

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Clothing, Fancy Goods, Weapons, Harness.

94 Leonardo, Quintin, Province of Laguna.—Salacot (national head-dress) of horn and silver. 254

95 Ilagan, Gregoria; Ilagan, Leoncia; Cabrera, Eulalia; Garcia, Leoncia; Montenegro, Eulalia; Montenegro, Maria, Province of Batangas. — Feathers with gold. 254

96 Ilustre, Timotea, Province of Batangas.—Flowers of glass beads. 254

97 Máximo, Isabel & Evarista, Province of Batangas.—Artificial flowers. 254

98 Jordana & Morera, Manila, Province of Manila.—National wearing apparel. 257

99 Provincial Board, Province of Batangas.— Pantaloons and saya, the national garment. 257

Weapons, etc.

100 Economical Society, Province of Manila.—Collection of national arms and photographs of same. 265

101 Provincial Board, Province of Mindanao.—Collection of national arms and photographs. 265

102 Provincial Board, Province of Bulacan.—Hunting-knives and sheaths. 268

Carriages, Vehicles, and Accessories.

103 Osmeña, Rita, & Co., Province of Cebú.—Harness made of abacá. 296

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

PORTUGAL.

(*South of South Avenue, Columns 13 to 17.*)

Chemical Manufactures, Ceramics.

Chemical Manufactures.

1 Direction of the Works at Mondego river & Figueira bar, Figueira da Foz.—Salt. 200

2 Samora Correa, Baroness, Lisbon.—Salt. 200

3 Companhia das Lezirias do Tejo e Sado, Lisbon.—Salt. 200

4 Vinva, A. J. Judice, Masilhaeira.—Salt. 200

5 Bandeira, A.S.B.M., Setubal.—Salt. 200

6 Branca, Anna Delphina, Alcacer do Sal.—Salt. 200

7 Bivar, Jeronymo, d'A. C. de, Algarve.—Salt. 200

8 Cooke & Co., Figueira da Foz.—Salt. 200

9 Drack, Jr., José R. G., Lisbon.—Pharmaceutical preparations. 200

10 Cresswell & Co., Lisbon.—Salt. 200

11 Castello Branco, Joaó da S. F., Villa Franca de Xira.—Salt. 200

12 Delegny Bros., Lisbon.—Chemicals. 200

13 Franco, Pedro Augusto, Belem.—Pharmaceutical preparations. 200

14 Figueiredo, Joaquim, Aviz.—Pharmaceutical preparations. 200

15 Ferraz, José Libertador Magalhaes, Coimbra.—Pharmaceutical preparations. 200

16 Galiano, Manuel d'Asfes, d'Oliveira, Oporto.—Pharmaceutical preparations. 220

17 Gragera, Antonio Maria Mendes, Villa Nova de Reguengos.—Pharmaceutical preparations. 200

18 Judice, V. A. J., Mexilhoeira.—Salt. 200

19 Jesus, Manuel Vicente de, Lisbon.—Pharmaceutical preparations. 200

20 Lezirias Co., Lisbon.—Salt. 200

21 Leite, Francisco de Paula, Alcacer do Sal.—Salt. 200

22 Lima, Guilherme A. E., Lisbon.—Pharmaceutical preparations. 200

23 Meirelles, Antonio Moreira de Souza, Faro.—Salt. 200

24 Miranda & Sons, Lisbon.—Salt. 200

25 Pires, Joao Luiz, Lisbon.—Salt. 200

26 Pedroza, Dellaria José Lopes, Figueira.—Salt. 200

27 Pires, Joao de Jesus, Lisbon.—Patent medicines. 200

28 Rei, Jose Joaquim, Lisbon.—Pharmacentical preparations. 200

29 Salgueiro, Nuno Freire Dias, Oporto.—Pharmaceutical preparations. 200

30 Serzedello & Co., Lisbon.—Chemicals. 200

31 Silva, Silverio Augusto Percira da, & Francisco Antonio, Marques de Moura, Aveiro.—Salt. 200

32 Schurmann, Adolpho, Lisbon.—Patent medicines 200

33 Torlades, O'Neill, Setubal.—Salt. 200

35 Alcacer do Sal, Viscount d', Alcacer-do Sal.—Salt. 200

36 Peres, Joaquim Manuel de Mattos, Evora.—Soaps 201

37 Gueiroz, José Sequeira Pinto de, Vianna.—Orange-peel oil. 201

38 Navarro & Co., Beja.—Soap. 201

39 Tenorio, Francisco Domingues.—Soap. 201

40 Vieira, Agostinho José, Villa Nova de Gaia.—Soap. 201

41 Mello, Antonio José Teixeira, Lisbon.—Wax candles. 201

42 Esmoriz, Manuel Ferreira, Oporto.—Soaps. 201

43 Department of Public Works, Lisbon.
a Wax candles. 201
b Blacking. 202

44 Costa, Joaquim Soares da, Oporto.—Oils. 201

45 Burnay, Viuva de J. B. B., Lisbon.—Oils. 201

46 Administrative Board of Works for the artificial port of Ponta Delgada.—Building materials. 102

47 Ferreira da Silva, Agostinho, & Co.—Common and fancy soaps. 201

48 Board of Public Forests, Lisbon.—Turpentine, oil, and spirits 202

49 Costa, Rodrigo de Campos, Soure.—Writing-ink. 202

50 Moedas, José, Moura.—Building materials. 102

50*a* Torres, Feliciano Luiz, Lisbon.—Paints and varnishes. 202

51 Mendona, Thomaz Antunes de, Lisbon.—Blue. 202

52 Souza Braga, Joar José, Oporto.—Writing-ink. 202

53 Domingo, Juan, Lisbon.—Wax matches. 204

Porcelain, Ceramics—Pottery, Glass, etc.

54 Silva, Miguel da, Evora.—Pottery. 206

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Ceramics, Glass, Furniture, Woven Goods.

55 Paparanhos, Balthasar José, Beja.—Bricks, tiles, and bricks dried in the sun, etc. 206

56 Pimentao, Antonio Ayres.—Pottery. 206

57 Marcal, Joao Lopes, Evora.—Bricks, tiles, etc. 206

58 Oliveira Soares, M. de, Evora.—Bricks and tiles. 206

59 Mira, José Paulo de, Evora.—Tiles, bricks, etc. 206

60 Neuville, Luis, Lisbon.—Ceramics. 206

61 Joao, Antonio, Evora.—Ceramics. 206

62 Martins, Alberto Cypriano, Lisbon.—Pottery. 206

63 Coelho, Francisco, Torres Novas.
a Bricks. 206
b Tiles. 208

64 Alves Cunha, José, & Mendonça, Henriquetta S., Caldas da Rainha.—Ceramics. 206

65 Lamego, Antonio da Costa, Lisbon.
a Architectural pottery. 206
b Tiles. 208
c Earthenware and faience. 210

66 Almeida da Costa, Antonio d', & Co., Oporto.
a Architectural pottery. 206
b Tiles. 208
c Earthenware and stoneware. 210

67 Boim & Co., Ponta Delgada.
a Architectural pottery. 206
b Dutch tiles, plain and ornamented. 208
c Stone china. 210

68 Rio Junior, J. do, Oporto.—Dutch tiles. 208

69 Victoria, José Goncalves, Aveiro.—Earthenware. 210

70 Scholfield, John Howarth, Lisbon.—Stoneware, faience, etc. 210

71 Marques, Pedro Antonio, Aviero.—Glazed earthenware. 210

72 Marques, Joao da Rosa, Entremoz.—Earthenware. 210

73 Manuel Leita Pereira & Bro., Ponta Delgada.—Glazed pottery. 210

74 Mafra, Manuel Cypriano Gomes, Caldas.—Ceramics (Caldas ware). 210

75 Conquis, Manuel, Ponta Delgada.—Earthenware. 210

76 Department of Public Works, Lisbon.—Earthenware. 210

77 Campolini, Miguel, Oporto.—Earthenware. 210

78 Coimbra, Candido.—Black earthenware. 210

79 Fanfarrao, Joao, Villa Verde.—Earthenware. 210

80 Cavaquinha, Joaquim Antonio, Beja.—Earthen water-vessel. 210

81 Borges, Joaquim Antonio, Vianna do Alemtejo.—Earthenware. 210

82 Vista Alegre Porcelain Manufactory, Vista Alegre.—Table, toilet, and decorative porcelain. 213

83 Montes, Manuel Alvares, Oporto.—Cylindrical glass, plate and window glass. 214

84 Marinha Grande Royal Glass Manufactory.—Marinha Grande.
a Glass. 214
b Glassware. 216

85 Margarido, Manuel d'Oliveira, Oporto.—Bottle and flask. 215

86 Cabo Mondego Mining Industrial Co., Figueira.—Specimens of glass work. 216

Furniture and Objects of General Use in Construction and in Dwellings.

87 Barboza & Costa, Lisbon.—Praying desk of pock wood. 217

88 Chaves, Augusto P. dos S., Lisbon.—Iron furniture. 217

89 Vallongo Slate & Marble Quarries Co., Oporto.
a Billiard and other tables. 217
b Stoves. 222

91 Gaspar, Manuel Rodrigues, Funchal.—Table. 217

92 Industrial Institute of Oporto, Oporto.—Silver cup and trays. 218

93 Gold Working Co., Oporto.—Plate. 218

94 Santos & Bro., Oporto.—Mirrors. 219

96 Corta, Basto, & Co., Oporto.—Drawing-room stoves. 222

97 Maralha, Pedro, Beja.—Brass pitcher. 224

98 Department of Public Works, Lisbon.—Kitchen utensils. 224

99 Alcobia, Joao Thomé, Lisbon.—Tinware and apparatus used in cooking. 224

100 Moreira, Antonio B., & Bro.—Cast iron pots. 224

101 Santos, Joaquim Autunes dos, Lisbon.—Marble bath. 226

Yarns and Woven Goods of Vegetable or Mineral Materials.

102 Ferreira, Manuel Simoes, Aveiro.—Sieves. 228

103 Panada, Joar Luiz, Lisbon.—Woven goods of mineral origin. 228

104 Lopez do Campo, Amaro, Beja.—Sieves. 228

105 Carvalho, D. Maria da C., Ponta Delgada.—Articles of Guinea aloes fibre. 229

106 Borges, Manuel da Cunha, Ponta Delgada.—Grass mats. 229

107 Dabney, R. L., Fayal, Azores.—Straw mat. 229

108 House of Correction, Lisbon.—Mats, coarse fabrics of rushes. 229

109 Lisbon Central Jail, Lisbon.—Mats. 229

110 Machado, Manuel, Ponta Delgada.—Marsh reed matting and straw fabrics. 229

111 Lima, Carvalho, Fayal.—Plaited straw. 229

112 Melindre, Joaquin d'Oliveira, Oporto.—Matting. 229

113 Margarido, Manuel d'Oliveira, Oporto.—Matting. 229

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45

Woven Goods.

114 Santos, José Marques, Ovar.—Coarse matting. 229

115 Silvas, Manuel Dias da, Oporto.—Drawing-room matting. 229

116 Silva, José Pinto, Aveiro.—Mats. 229

117 Silva, Bruno da, Lisbon.—Straw mats. 229

118 Santos, Antonio Marques dos, Braga.—Rush mats. 229

119 Thomar Royal Weaving Co., Thomar.—Cotton yarns and fabrics. 230

120 Xabregas Cotton Manufactory, Lisbon.—Cotton yarns and fabrics. 230

121 Torres Novas National Spinning & Weaving Co., Torres Novas.—Cotton fabrics, bleached and unbleached. 230

122 Souza & Silva, Antonio José, Vallonga.—Cotton yarns. 230

123 Rezendes, Barbara, Ponta Delegada.—Counterpane. 230

124 Rio Vizella Weaving Co., Oporto.—Cotton yarns. 230

125 Oporto Weaving Co., Oporto.—Cotton yarns. 230

126 Neves, Casuniro de Castro, Oporto.—Cotton yarns. 230

127 Nogueira, Manuel Augusto, Ponta Delgada.—Cotton canvas. 230

128 Deut, José Rodriguez de, & Co., Torres Novas.—Unbleached cotton canvas. 230

129 Leite, Tito José, Oporto.—Cotton yarns. 230

130 Lisbon Spinning & Weaving Co., Lisbon.—Cotton yarns and fabrics, bleached and unbleached. 230

131 Fraternal Association of Weavers & Correlative Trades, Braçal.—Cotton fabrics. 230

132 Ferriera, Joao José, Oporto.—Toweling. 230

133 Department of Public Works, Lisbon.
a Cotton fabrics. 230
b Linen fabrics. 233

134 Crestuma Weaving Co., Oporto.—Cotton yarns. 230

135 Carneiro, Annâ, Ponto Delgada.—Counterpane. 230

136 Camara, Manuel da, Ponta Delgada.—Embroidered table cloth. 230

137 Barraya, Maria, Safara, Alemtijo.—Counterpane. 230

138 Albuquerque, Caetano de A., Ponta Delgada.—Cotton rags. 230

139 Diaz, Rodrigo A. F., Oporto.
a Cotton fabrics. 230
b Linen fabrics. 233

140 Nabinho, José da Fonseca, Oporto.
a Cotton twine. 230
b Linen twine. 233

141 Bahia & Genro, Oporto.
a Cotton fabrics. 230
b Linen fabrics. 233

142 Michon, André, Oporto.
a Cotton fabrics. 230
b Linen fabrics. 233

143 Moreira, Manuel José, Ponta Delgada.
a Counterpane of colored linen and cotton. 230
b Unbleached linen fabrics. 233

144 Mello, José Carneiro de, Oporto.
a Cotton fabrics. 230
b Linen fabrics. 233

145 Gueiroz, Antonio Gonçalves, Oporto.—Cotton prints. 232

146 Lisbon Dyeing & Cotton Printing Co., Lisbon.—Cotton prints. 232

147 Etur, Augusto Frederico, Sacavem.—Cotton prints. 232

148 Anjos & Co., Lisbon.
a Cotton prints. 232
b Handkerchiefs. 233

149 Guimaraes, Joaquim A. da S., Son, & Genro, Oporto.—Cotton prints. 232

149*a* Anjos, Cunha, Ferreira, & Co., Lisbon.
a Cotton prints. 232
b Handkerchiefs. 233

150 Guimaraes, Antonio da Costa, Guimaraes.—Linen fabrics, towels, napkins, thread, vases made of thread. 233

151 Guimaraes, Balthasar J. P., Penafiel.—Linen woof. 233

152 Guimaraes, Manuel M. R., Guimaraes.—Linen table cloths and napkins. 233

153 Guerra, Joaquim Baptista da Silva, Oporto.—Linen stuffs, nets. 233

155 Castro, Joao Vaz Pacheco, Ponta Delgada.—Packing thread. 233

156 Carvalho, Isabel Candida Alves, Mondein de Basto.—Linen fabrics. 233

157 Baptista, Joao Guerreiro, Almodovar.—Linen yarns and fabrics. 233

158 Brum, Caetano de, Ponta Delgada.—Linen duck. 233

159 Collaço, Manuel Matheus, Castro Verde.—Linen fabrics. 233

160 Camara, D. H. Gago da, Ponta Delgada.—Linen fabrics and threads. 233

161 Canto, Anna Adelaide, Ponta Delgada.—Linen yarns. 233

162 Almeida, Jacintho Pacheco, Ponta Delgada.—Linen fabrics. 233

163 Teixeira, Maria Amalia, Ponta Delgada.—Reeled linen thread, bleached and unbleached. 233

164 Silva, José Pinto, Averio.—Linen stuffs. 233

165 Santos, Ascencio José dos, Valença—Linen counterpanes, napkins, etc. 233

166 Pacheco, J. V., Ponta Delgada.—Striped linen counterpanes. 233

167 Pacheco, Antonio Vaz, Ponto Delgada.—Linen stuffs. 233

168 Pacheco, Francisco Jeronymo, Ponta Delgada.—Uncolored linen fabrics and linen threads. 233

169 Rosa, Izable, Castro Verde.—Napkins. 233

170 Peres, Joaquim Manuel de Mattos, Evora.—Linen fabrics. 233

171 Mesquita, Pedro José de, Taboa.—Linen fabric. 233

172 Nobre, J. R. Furtado, Odemira.—Linen yarns and fabrics. 233

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Woven and Felted Goods, Silks.

173 Magalhaès, Francisco Thiago, Taboa.—Linen fabric. 233

174 Lança, Francisco Parreira de, Castro Verde.—Linen fabrics. 233

175 Barboza Marinho, Veuva, Lisbon.—Oil cloths. 234

Woolen and Felted Goods of Wool, etc.

176 Silva, José Francisco, Redondo.—Brown woolen cloth (Saragossa). 235

177 Rosa, Vicencia, Ithavo.—Woolen fabrics. 235

178 Portalegre National Wool Manufacturing Co., Portalegre.
a Cloths. 235
b Cassimeres. 238

179 Perdigao, Miguel Salvado, San Miguel de Machede.—Brown woolen cloth. 235

180 Peres, Joaquim Manuel de Mattos, Evora.—Woolen fabrics. 235

181 Neves, Balbina das, Serpa.—Coarse woolen fabrics. 235

182 Andrade, Antonio Pequito Sieras de Gavias, Portalegre.—Wool. 235

183 Padronello Woolen Manufacturing Co., Amarante.—Card-wool fabrics. 235

184 Ponte, Jose Caetano da, Almodovar.—Woolen fabrics. 235

185 Mello, Gil Tavares, Ponta Delgada.—Yarn. 235

186 Netto, Antonio Eugenio Bello, Macao.—Woolen fabrics. 235

187 National Rope Yard, Belem.—Yarn. 235

188 Mirrada, Josè Pedro Meudas, Macao.—Card-wool fabrics. 235

189 Leandro, Manuel, Beja.—Woolen fabrics. 235

190 Lança, Francisco Parreira de, Castro Verde.—Woolen fabrics. 235

191 Lordello Woolen Manufacturing Co., Oporto.—Cloths, cassimeres. 235

192 Department of Public Works, Lisbon.—Woolen fabrics, yarns. 235

193 Campo Grande, Company of Woolen Manufacturers of, Lisbon.—Card-wool fabrics, kerseymeres, etc. 235

194 Custodio & Silva, Covilha.—Woolen fabrics. 235

195 Burnay, Constant, Lisbon.
a Woolen fabrics, kerseymeres, plaids. 235
b Blankets. 237

196 Costas & Carvalho, Oliveira, d'Azemeis.
a Woolen cloths. 235
b Shawls. 237

197 Collaço, Manuel Matheus, Castroverde.
a Woolen fabrics. 235
b Combined wool fabrics. 238

198 Bibianno, Antonio Alves, Lisbon.—Broadcloth. 235

199 Bernardo, Daupias, & Co., Lisbon.—Woolen fabrics. 235

200 Nabinho, José da Fonseca, Oporto.—Woolen twine. 235

201 Pacheco, Francisco Jeronymo, Ponta Delgada.—Plain flannel. 236

202 Guilherme, Maria, Castro Verde.—Coarse blankets. 237

203 Simaes, Rosa Clara, Aveiro.—Blanket. 237

204 Pignatelli, José da Cunha, Guarda.—Blanket. 237

205 Piteira, Filipe, Serpa.—Blankets and mantilla. 237

206 Department of Public Works, Lisbon.—Blankets. 237

207 Guerra, Joaquim Baptista da Silva, Oporto.—Poplins. 238

208 Campos, Mello, & Co., Covilha.—Kerseymeres. 238

209 Costa, Clemente Joaquim da, Ponta Delgada.—Mixed fabrics of linen and wool. 238

210 Albuquerque, Caetano de A., Ponta Delgada.—Counterpane of linen and wool. 238

211 Abren e Lima, Joao A., Ponta Delgada.—Table cloth of linen and wool. 238

212 Santos, Ascencio Josè dos, Valença.—Combined woolen fabrics. 238

213 Pacheco, J. V., Ponta Delgada.—Combined wool fabrics, for blankets and wearing apparel. 238

214 Almeida & Silva, José Soares d', Oporto.—Mats. 239

215 Fernandes, Manuel, Coimbra.—Goat's hair cloth. 240

Silks and Silk Fabrics.

216 Sonto, Antonio Manuel Granzo, Nova Visen.—Silk cocoons. 242

217 Vasconcellas, Jacintha P., Villa Nova de Leacira, Oporto.—Raw silk. 242

218 Silva, Antonio Josè de Lansa e Vallongo, Oporto.—Silk cocoons. 242

219 Patricio, Francisco Antonio, Guarda.—Silk cocoons. 242

220 Queiroz, Josè de Sequeira Pinto, S. Sebastiao do Duque, Vianna do Castello.—Raw silk. 242

221 Reis, Josè Antonio, Moncorvo, Bragança.—Raw silk. 242

222 Pereira, Antonio de la Velha, Bragança.
a Raw silk, silk cocoons. 242
b Thrown silk. 243

223 Vasconcellas, Joas da Camara Seure Hornema, Funchal, Madeira.
a Raw silk. 242
b Spun silk and weft. 244

224 National Silk Spinning & Weaving Manufactory, Lisbon.
a Cocoons, raw silk. 242
b Twisted silk. 243
c Woven silks. 245

224*a* Pereira, Antonio de la'Velha, Bragança.
a Raw silk. 242
b Thrown silk. 243
c Silk cocoons. 244

225 Brandao, Josè Marçal, Oporto.—Twisted sewing-silk. 243

226 Silva, Antonio J. P. da, & Alves.—Twisted sewing-silks. 243

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Woven Goods, Silks, Clothing.

227 Egyptian Silk Growing Co., Oporto.—Spun silk yarns. 244

228 Cavalho, José Baptista Valhe, Passos, Vilha Real.—Spun silk. 244

229 Azevedo, Miguelina Julia de J. Garvea Roris, Oporto.—Spun silk. 244

230 Ribas, Limas, Guarda.—Silk wefts. 244

231 Silva, David Jose da, & Sons, Oporto.
a Satin and gold damasks. 245
b Figured silk. 246
c Gold tissue. 249

232 Ramires & Ramires, Lisbon.—Woven silks. 245

233 Pimentel & Queiroz, Oporto.
a Plain silks, serges, tailles, glaces, and satins. 245
b Figured silks. 246
c Velvets. 247

234 Moreira, Verdeiras de Manuel Custodia, Oporto.
a Plain damask. 245
b Figured damask. 246
c Satin handkerchiefs. 247

235 Fouseca, Manuel da Motta, Oporto.
a Serges. 245
b Figured satin handkerchiefs. 247

236 Avaujo, Antonio J. B. de., Braga.—Damasked silk. 246

237 Guerra, Joaquim Baptista da Silva, Oporto.
a Brocatelles. 246
b Satin handkerchiefs. 247

238 Vasconcellos, José da Silva Pereira, Braga.
a Damask. 246
b Black velvet. 247

239 Manuel, Joaquim de Luna & F., Oporto.—Black velvet. 247

240 Silva, Manuel José Francisco da, Braga.
a Gold lustring upholstery silk. 247
b Silk braids, galloons. 249

240*a* Motta, Augusto Antonio da, Oporto.—Silk and cotton ribbon. 248

240*b* Nogueira, Francisco José, Oporto.
a Ribbons. 248
b Velvets, fringes, etc. 249

240*c* Silva Guimaraes, Custodio José, Oporto.—Samples of galloons. 249

240*d* Machado, Julio Rodrigues, Oporto.—Bindings, braids, cords, etc. 249

240*e* Coelho, José de Soura, Penafiel.—Galloons. 249

241 Braga, Manuel J. V., Coimbra.—Silk trimmings. 249

241*a* Autunes, Jeronimo J., Braga.—Elastic braids. 249

Clothing, Jewelry, and Ornaments; Traveling Equipments.

241*b* Dabney, S. W., Fayal, Azores.—Aloe shawl, knitted hose, jacket, sash, etc. 250

241*c* Serrana, Florencia, Aveiro.—Waistcoat. 250

241*d* Rezendes, Francisco de, Ponta Delgada.—Colored petticoat. 250

242 Rego, A. P., Lisbon.—Clothing. 250

243 Paixao, Antonio Augusto da, jr., Coimbra.—Clothing. 250

244 Gonçalves, Manuel Joao, Castro Verde.—Woolen girdle. 250

245 Brites, Rose e M. G. do S., Ovar.
a Articles of dress. 250
b Lace, crochet. 252
c Artificial flowers, representation of Calvary, in pasteboard. 254

246 Ferreira, Joanna E., Fayal.
a Lace skirt, jacket, and sash. 250
b Hats. 251
c Lace, mats. 252
d Artificial flowers. 254

247 Vianna, Antonio Martius, Oporto.—Plated shoes. 251

248 Valença, Domingo Fernandes, Oliveira d'Azemeis.—Hats. 251

249 Trindade, Joaquim Antonio, Beja.—Peasant gaiters. 251

250 Silva, Antonio Moreira, Oliveira d'Azemeis.—Hats. 251

251 Silva, Miguel Manuelda, Vianna do Castello.—Military boots. 251

252 Santo Thirso, Antonio dos Reis, Aveiro.—Embroidered wooden-soled shoes. 251

253 Scheehan, Diogo Jorge, Lisbon.—Kid gloves. 251

254 Soares, José Nogueira, Penafiel.—Wooden shoes. 251

255 Silva, Julio Pereira, Penafiel.—Peasant's shoes. 251

256 Souza, José da Cunha Alves, Braga.—Boots and ladies' kid boots. 251

257 Salga, Maria da, Ponta Delgada.—March-reed hat. 251

258 Serra, Felippe José, Lisbon.—Boots and shoes. 251

259 Silva, Bernardino Antunes, Lisbon.—Kid gloves. 251

260 Ramalho, José da Cunha, Ponta Delgada.—Straw hats. 251

261 Gonçalves, Joao, Almodovar.—Card worked by the hand. 251

262 Sonto, Rodrigo Alves Martius de, Oporto.—Boots and shoes. 251

263 Sequeira, Francisco Pinto, Oporto.—Boots and shoes. 251

264 Silva Guimaraes, Custodio José, Oporto.—Braided shoes. 251

265 Paiva, Manuel J. de, Braga.—Boots and shoes. 251

266 Pereira, Luiz Maria, Oporto.—Boots and shoes. 251

267 Roxo, Viuva de A., Roxo, Lisbon.—Hats. 251

268 Pereira Bros., Ponta Delgada.—Straw hat. 251

269 Paula, Antonio José, Barcellos.—Cork hats. 251

270 Oporto Glove Manufacturing Co., Oporto.—Gloves. 251

271 Lima, Carvalho, Fayal.—Straw hats. 251

272 Maria & Silvia, F., & Gonçalves, Oporto.—Hats. 251

273 Gomez & Sons, Lisbon.—Boots and shoes. 251

274 House of Correction, Lisbon.—Boots and shoes. 251

275 Ferreira, José Bento.—Boots and shoes. 251

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Clothing, Fancy Goods, Jewelry.

276 Delaye, Hypolite, Lisbon.—Kid gloves. 251

277 Dias, Antonio, Oporto.—Wooden shoes. 251

278 Dabney, R. L., Fayal Azores.—Hat made of wood shavings. 251

279 Corta, Braga, & Son, Oporto.—Hats. 251

280 Ponta Delgada, Committee of, San Miguel.—Straw hats. 251

282 Coutinho, José M. da C., Ponta Delgada.—Linen and woolen caps. 251

283 Carvalho, Joaquim José, Guimaraes.—Wooden shoes, slippers. 251

284 Barreiros, Francisco I., Beja.—Boots and shoes. 251

285 Bahia, Antonio José R., Braga.—Hats. 251

286 Bahia, Custodio J. R., Braga.—Hats. 251

287 Almeida, Germano, Lisbon.—Boots and shoes. 251

288 Aren, Manuel J. da S., Braga.—Boots and shoes. 251

289 Santos & Bro., St. Vincente de Pereira.—Hats. 251

290 Calheta, Maria Pereira da, Ponta Delgada.
- *a* Woolen caps. 251
- *b* Linen embroidery. 252

291 Department of Public Works, Lisbon.
- *a* Wooden shoes, hats. 251
- *b* Laces, bindings, and braids. 252
- *c* Costumes. 257

292 Infant School, Barcellos.
- *a* Knit stockings. 251
- *b* Needlework embroideries. 252

293 Oliveira, J. F. de, Funchal.
- *a* Caps. 251
- *b* Embroideries. 252

293*a* Camara, Manuel da, Ponta Delgada.—Cotton lace. 252

294 Tavares, Rita de J., Aveiro.—Lace. 252

295 Theresa de Jesus, Ponta Delgada.—Needlework. 252

296 Teixeira, Carlota Matilde, Funchal.—Embroideries. 252

297 Themudo, Maria Eduarda, Castro Verde.—Lace. 252

298 Vuiva Ferreira Campos & Co., Oporto.—Materials for gold and silver embroidery, gold lustring, galloons, and lace. 252

299 Magalhaès, Anna Maria Barboza de, Aveiro.—Lace. 252

300 Gois, Francisca, Emilia de, Aljustrel.—Lace. 252

301 Davies, John, Fayal.—Pin-cushion covers, crivo work. 252

303 Carvalho, Anna C. L. da C., Ovar.—Embroideries. 252

304 Coral, Joanna Maria Dias, Ovar.—Embroideries. 252

305 Bivar, Manuel d' A. C. de, Algarve.—Lace. 252

307 Abren e Lima, Joaó, B., Ponta Delgada.
- *a* Embroideries. 252
- *b* Frame with pricked paper work. 254

308 Carneiro, Francisco dos Santos, Oporto.—Gilt tissue. 252

309 Teixeira, José Rodriguez, Oporto.—Silver jewelry. 253

310 Seabra, José dos Santos, Oporto.—Gold and silver jewelry. 253

311 Montinho Souza, F. de, Oporto.—Gold and silver jewelry. 253

312 Nogueira, Antonio Marques, Oporto.—Gold jewelry. 253

313 Montinho, Luiz Pinto, Oporto.—Silver jewelry. 253

314 Marques, Manuel Martius, jr., Oporto.—Silver jewelry. 253

315 Lobao & Ferreira, Oporto.—Gold and silver jewelry. 253

316 Leitao & Irinao, Oporto.—Gold and silversmith's work, jewelry. 253

317 Gold Working Co., Oporto.—Goldsmith's work, jewelry. 253

318 Cerquinho, Francisco Augusto V., Oporto.—Gold and silver jewelry. 253

319 Conto, Antonio Guilherme, San Pedro da Cova.—Silver jewelry. 253

320 Coutinho, A., & Titho, Oporto.—Gold and silver jewelry. 253

321 Augusta, Maria da P., Coimbra.—Toothpicks. 254

322 Martins, Jeronymo, & Son, Lisbon.—Toothpicks. 254

323 Martins Jeronymo & Bro., Lisbon.—Toothpicks. 254

324 Avellar & Miranda, Lisbon.—Toothpicks. 254

325 Cunha, Augusto Mendes da, Guimaraes.—Horn combs. 254

326 Dabney, S. W., Fayal, Azores.—Eagle made of fig-tree pith. 254

327 Gonçalves, Ribas, & Co., Oporto.—Buttons and materials of manufacture. 254

328 Maria, Joaquim, Coimbra.—Tree composed of toothpicks. 254

329 Margues, José Antonio, Braga.—Umbrellas. 254

330 Diogo, Antonio Manuel, Oporto.—Umbrellas. 254

331 Gandencio, José, Coimbra.—Toothpicks. 254

332 Maria, José, Coimbra.—Toothpicks. 254

333 Lauriano & Tavores, Ponta Delgada.—Pincushion of silk and aloes-thread. 254

334 Pinho, Guithermina d'Oliveira, Ponta Delgada.—Flowers made of feathers and rags. 254

335 Passos, Augusto Fructuoso, Guimaraes.—Horn combs. 254

336 Mello, Antonio Machado de Souza, Ponta Delgada.—Bead work, flowers, and lace. 254

337 Schalck, H., Lisbon.—Buttons, hooks and eyes, etc. 254

338 Silva, José Gonçalves, Oporto.—Bird cages. 254

339 Souza, Maria Magdalena, Ponta Delgada.—Artificial flowers of stearine and Guinea aloe fibres. 254

340 Silva, Joaquim da, Coimbra.—Toothpicks. 254

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Traveling Equipments, Stationery, Weapons, Hardware, etc.

341 David, José de A., Oporto.—Portmanteau and hat-boxes. 255

342 Conceiçao, Umbelina da, Castro Verde.—Saddlebags. 255

343 Ramos, Joaquim Antonio, Beja.—Leather bottles. 255

344 Neves, Balbina dos, Serpa.—Saddlebags. 255

345 Rocha, Francisco José da Silva, Oporto.—Leather portmanteaus, traveling bags, valises, belts, and game pouches. 255

Paper, Blank Books, Stationery.

346 Manilha, Francisco dos Santos Lopes, Valongo.—Slates. 258

347 Lemos, J. Gonçalves de, Louzan.—Paper. 259

348 Galiano, Manuel d'A., d'O., Oporto.—Cigarette paper. 259

349 Mesnier, Raul, Coimbra.—Cigarette paper. 259

350 Freitas, Feliciano Gabriel de, Lisbon.—Writing-paper. 259

351 Prado Paper Manufacturing Co., Thomar.—Paper. 259

352 National Printing Office, Lisbon.
a Printing materials, etc. 260
b Playing cards, etc. 262

353 Reis & Monteiro, Oporto.
a Typographical proofs. 260
b Lithographic proofs. 261

Military and Naval Armaments, Ordnance, Firearms, and Hunting Apparatus.

355 Cardozo, José Pereira, Oporto.—Lead shot. 265

355*a* National Printing Office, Lisbon.—Weapons, etc. 265

356 Manuel, Antonio da Silva, & Sons, Lisbon.—Lead shot. 265

357 Carvalho e Mello, Adrianno José, Bragança.—Convertible fowling-piece and cane. 269

Medicine, Surgery, Prothesis.

358 Nobreza, Francisco Augusto da Silva, Figueira.—Vermifuge lozenges. 272

359 Rodriques, José Pereira, Lisbon.—Pharmaceutical preparations. 272

360 Andradi, Albano Abilio de, Oporto.—Surgical instruments. 276

Hardware, Edge Tools, Cutlery, and Metallic Products.

361 Direction of the Works at Mondego river & Figueira bar, Figueira da Foz.—Tools employed in the salt pits. 280

362 Santos, Manuel Moreira, Oporto.—Carpenters' tools and calking irons. 280

363 Industrial Institute of Oporto, Oporto.—Stone-cutters' tools. 280

364 Cardozo, Joao Thomaz, Villa Nova de Gaia.
a Coopers' tools. 280
b Locks and nails. 284

365 Cunha, August Mendes da, Guimaraes.—Knives, scissors. 281

365*a* Guimaraes, Joaquim M. da S., Guimaraes.—Scissors. 281

366 Alves, Antonio, jr., Villa Real.—Pruning knives. 281

367 Cruz, Luiz F. de S., Oporto.—Cast iron escutcheons. 283

368 Souza, Luiz Augusto de, Evora.—Small bells. 283

369 Santos Rocha & Morena, Oporto.—Leaden tubes. 283

370 Corta, Basto, & Co., Oporto.
a Cast iron cross, lead pipes. 283
b Tinned hardware. 284

371 Cruz, Luiz F. de S., Oporto.—Ranges and bushes for axles. 284

372 Santos, Joaquim Antunes dos, Lisbon.—Card of wire and wire nails. 284

373 Schalck, H., Lisbon.—Nails, etc. 284

374 Peixoto, Rodrigo José, Penafiel.—Brass nails. 284

375 Pacheco, Francisco Gomez, Braga.—Nails. 284

376 Ferreira, M. J., & da Silva, Jos., Braga.—Hardware. 284

377 Guerra, Antonio José de Soura, Oporto.—Brass cocks, hinges, etc. 284

378 Department of Public Works, Lisbon.—Hardware. 284

379 Camara, Antonio da, Ponta Delgada.—Nails, lock. 284

380 Ponta Delgada, Committee of, San Miguel.—Lock. 284

381 Ben Saude, Jacob, Ponta Delgada.—Copper nails. 284

Fabrics of Vegetable, Animal, or Mineral Materials.

382 Heuriques, Antonio Alexandre, Oporto.—Elastic webs for boots and shoes. 285

383 Cardozo, Manuel Joaquim, Oporto.—Elastic webs for boots and shoes. 285

384 Costa, José Antonio, Oporto.—Elastic webs for boots and shoes. 285

385 Lisbon Central Jail, Lisbon.—Scouring brushes. 286

386 Carvalho, Antonio Raymundo, Lisbon.—Brushes. 286

387 Oliveira, Balthasar, Pinto.—Ropes. 287

388 National Rope Yard, Belem.—Ropes. 287

389 Lauriano & Tavores, Ponta Delgada.—Osier baskets. 287

390 Castro, Joaõ Vaz Pacheco, Ponta Delgada.—Rope. 287

391 Barboza, Antonio José, Oporto.—Flax and hempen ropes and twines. 287

392 Cruz, Joaõ Maria.—Hemp and esparto ropes. 287

393 Department of Public Works, Lisbon.—Statistical monograms. 288

394 Braga, Antonio P. da S., Braga.—Portuguese armorial bearings. 288

395 Tavares, José, Oporto.—Willow baskets. 289

396 Matlos, Antonio José de, Barcellos.—Basket work. 289

397 Department of Public Works, Lisbon.
a Basket ware. 289
b Wooden spoons. 289

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Woodenware, Harness, Art.

399 Baptista, Joaó Guerreiro, Almodovar.—Wooden spoons. 289

400 Mattos, F. C. Pereira de, Faro.—Palm-leaf flails. 289

401 Araiyo, José Antonio, Barcellos.—Basket work. 289

402 Mendonca, Manuel Fernandes de, Lisbon.—Spools. 289

404 Direction of the Works at Mondego river & Figueira bar, Figueira da Foz.—Baskets and mats, tatch. 289

405 Lemos & Antunes, Figueira da Foz.—Pulley blocks. 289

Carriages, Vehicles, and Accessories.

406 Cunha, Augusto Mendes da, Guimaraés.—Horse bits, snaffles, spurs. 296

407 Carvalho, Manuel, Guimaraes.—Horse bits, stirrups, spurs. 296

408 Guimaraes, Joaó Carvalho, Guimaraés.—Horse bits, spurs. 296

409 Sonto José Sebastiao, Oeiras.—Horse-shoe. 296

410 Silva, Joaó d'Oliveira, Braga.—Horse furniture. 296

411 Silva, J. Baptista da, Guimaraes.—Horse bits. 296

Sculpture.

412 Gonçalves, A. D.—Christ Crucified (in marble). 400

Oil Paintings.

413 Segueira, D. A.—Distribution of Soup in Lisbon to the Refugees during the French Invasion of 1810. 410

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

TURKEY.

(*South of Nave, Columns 14 to 17.*)

Chemical Manufactures.

Chemical Manufactures.

1 Ali Effendi, Angora.—Salt. 200
2 Allah, Tozula, Bosnia.—Salt. 200
3 Djorbaji, Chio, Dardanelles.—Sulphate of antimony. 200
4 Ayvadjik, Government of, Dardanelles.—Sea salt. 200
5 Adana, Government of, Adana.—Salt. 200
6 Bigdé, Government of, Koniah.—Mineral salt. 200
7 Canea, Government of, Crete.—Sea salt. 200
8 Djidé, Government of, Hidjaz.—Salt. 200
9 Kara-Hissar, Government of, Sivas.—Alum. 200
10 Tous-Hissar, Government of, Sivas.—Sea salt and white salt. 200
11 Toutous, Government of, Sivas.—Nitre. 200
12 Syria, Government of.—Dead Sea salt. 200
13 Van, Government of, Erzeroum.—Nitre. 200
14 Beker, Hadji, Aleppo.—Sâlt. 200
15 Seit, Hadji, Koniah.—Crude potash. 200
16 Ligory, Effendi, Stankens, Dardanelles.—Sulphate of iron. 200
17 Maktis, Diarbekir.—Balsam flower. 200
18 Mehemed, Aleppo.—Salt. 200
19 Memla Memour, Kangre, Castamouni.—Salt. 200
20 Moustapha, Diarbekir.—White and red salt. 200
21 Pano Mamatti, Prévézé, Yanina.—Salt. 200
22 Suleiman, Prévézé, Yanani.—Salt. 200
23 Saldne, Erzeroum.—Salt. 200
24 Saline de Coniah, Koniah.—Salt. 200
25 Zanni, Constantinople.—Pharmaceutical preparations. 200
26 Smyrna, Government of, Aydin.
a Sea salt. 200
b Olive oil. 201
27 Erzeroum, Government of.
a Mineral salt. 200
b Soap. 201
28 Tchelder, Government of, Erzeroum.
a Borax. 200
b Orpiment (a pigment). 202
29 Riza, Effendi, Constantinople.—Candles. 201
30 Anaghrosti Dascalo Paolo, Sfakia, Crete.—Wild mint, apple, and daphne oils. 201
31 Vaskapoli, Arnasnoti, Canea, Crete.—Sumac, rosemary, and red oils. 201
32 Chakir Agha, Ayvadjik, Dardanelles.—Olive oil. 201
33 Chakir Elké, Aleppo.—Soap. 201
34 Chaul Kepka, Bérat, Yanina.—Olive oil. 201
35 Chamlotte, Malatia, Diarbekir.—Opium oil. 201
36 Costa, Prévézé, Yanina.—Soap. 201
37 Mazalaki, Dimitri, Canea, Crete.—Oil of sweet and bitter almonds. 201
38 Eflimitaki, Giorgui, Canea, Crete.—Essential oil. 201
39 Salonica, Government of.—Olive oil. 201
40 Samos, Government of.—Soap and olive oil. 201
41 Volania, Government of, Yanina.—Olive and other oils. 201
42 Haranlar, Boyorki, Mytilene, Dardanelles.—Soap. 201
43 Koudour, Hadji, Aleppo.—Olive and sesame oils. 201
44 Yehrapalaki, Hadji, Nicolas, Lachite, Crete.—Oil of myrtle. 201
45 Schidebalaki, Hadji Nicolas, Lachite, Crete.—Oil of juniper. 201
46 Fezli Ogli Samy, Bey, Hadji.—Soaps. 201
47 Hussein, Saret, Diarbekir.—Soap. 201
48 Foliatis, Joseph, Smyrna, Aydin, Soap. 201
49 Mehemed, Piseren, Monastir.—Soap. 201
50 Pedros, Diarbekir.—Olive oils. 201
51 Pla Oghli, Smyrna, Aydin.—Soap. 201
52 Tanassi, Aydonat, Yanina.—Olive oil. 201
53 Tassia Didé, Prévézé, Yanina.—Olive oil. 201
54 Yani Paoli, Narda, Yanina.—Olive oil. 201
55 Salomon, Salonica.—Soap. 201
56 Panayote, Petron, Chio, Dardanelles.—Oil of flowers. 201
57 Nicoforaki, Théophane, Canea, Crete.
a Olive oil. 201
b Orange flower and rose waters. 203

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Chemicals, Ceramics, Furniture.

58 Anastassiades, George, Constantinople.
a Fancy soaps. 201
b Perfumery, tooth powder, cosmetics, etc. 202

59 Garatoéla, Aleppo.
a Scented soap. 201
b Perfumed argil for baths. 203

60 Kisin, Government of, Salonica.—Chrome. 202

61 Massoudjou, Diarbekir.—Ochre. 202

62 Moury, Bey, Fokat, Sivas.—Madder. 202

64 Roussio, Tchihlahi, Sfakia, Crete.—Red ochre. 202

65 Salé, Zubei, Ziemen.—Indigo. 202

65*a* Feizoulah, Constantinople.—Perfumery, essences, cosmetics, soap, etc. 203

66 Aleppo, Governor of.—Rose and orange blossom waters. 203

67 Menteché, Government of, Aydin.—Incense. 203

68 Aydin, Government of, Aydin.—Liquorice juice. 203

69 Selim Agha, Prévézé, Yanina.—Cedar and orange blossom waters. 203

70 Medina, Government of, Hidjaz.—Kena, for coloring the nails. 203

71 Maktis, Diarbekir.—Violet, marshmallow, virgin maria, and rose flowers. 203

72 Papaz, Oglou Bros., Philippopolis, Adrianople.—Rose oil. 203

73 Abdoullah, Tahil, Hidjat.—Essence of roses; mint and rose waters. 203

74 Ali Agha Bachkin, Tripoli, Tripoli.—Essences of geranium and orange flowers. 203

75 Ali Mehemed, Effendi, Koniah, Koniah.—Essence of mint and wild thyme oil. 203

76 Christo, Philippopolis, Adrianople.—Rose oil and rose water. 203

Ceramics—Pottery, Porcelain, Glass, etc.

77 Ali, Agha, Roostchook, Danube.—Flower pots. 206

78 Djebar Oglou Mustapha, Vardar, Bosnia.—Pottery. 206

79 Kirkor, Aintab.—Terra-cotta pot. 206

80 Ousta, Tahir, Dardanelles.—Flower pots. 206

81 Ousta, Hussein, Dardanelles.—Terra-cotta vases, flower pots. 206

82 Kirkor, Terssus, Adana.
a Water pots. 206
b Earthenware cup. 210

83 Nicoforaki, Théophani, Canea, Crete.—Yellowware. 210

84 Mehemed, Hadji, Constantinople.—Earthenware coffee pot, boxes, cups and saucers, plates, spoons, pipe bowls, vases, etc. 210

Furniture and Objects in General Use in Construction and in Dwellings.

85 Vester, Jerusalem, Syria.
a Olive wood table. 217
b Olive wood sugar bowls, napkin rings, cups. 218
c Olive wood shelves, wall pockets, frames, etc. 220
d Olive wood candlesticks. 223

86 Seid Alip, Damascus.
a Inlaid mother-of-pearl tables. 217
b Plate. 218
c Looking glass. 219

87 Ludovic & Vallauri, Constantinople.
a Curtains. 217
b Plates, coffee cup and saucer, spoons, tumblers. 218
c Mirrors. 219
d Copper braziers, bellows. 222
e Bronze and paper lanterns. 223
f Bronze coffee pots, coffee mill, preserve jars, etc. 224

88 Isaac Agha, Brousse.—Curtain. 217

89 Ibrahim, Constantinople.—Table inlaid with mother-of-pearl. 217

90 Murtazi, Hadji, Trebizond.—Secretary. 217

91 Abdi Agha, Hadji, Bosnia.
a Gilt copper censer. 217
b Copper plates, dishes, etc. 224

92 Ebou Raguel Ana, Damascus.
a Table. 217
b Plate. 218

93 Ahmed Ana, Damascus.—Chair. 217

94 Yanaki, Widin, Danube.—Zarf saucer, silver candy-basket. 218

95 Tahir, Ousta, Dardanelles.—Water pitcher and decanters. 218

96 Tahir, Ousta, Piseren, Monastir.—Gilt spoon, knife, and fork. 218

97 Parabet, Tokat, Sivas.—Basket. 218

98 Seid Ragui, Damascus.—Plate. 218

99 Papaz Avediz, Trebizond.—Copper dinner set. 218

100 Nicolas, Oglou, Trebizond.—Silver filigree cupholder. 218

101 Abil, Aleppo.—Silver filigree saucers. 218

102 Ferrad, Ousta, Keuprula, Salonica.—Earthen cup and tumblers, inlaid with silver. 218

103 Nazar Kezork, Aintab, Aleppo.—Silver filigree saucers and silver saucer. 218

104 Manouk, Aleppo.—Silver plate. 218

105 Mehemed, Ousta, Castamouni, Castamouni.
a Dinner sets and copper dishes. 218
b Copper plate and wash basin. 224

106 Ismail Ousta, Koniah, Koniah.—Earthen goblets and drinking cup. 218

107 Ith, Jerusalem.—Cups and saucer. 218

108 Hussein Ousta, Dardanelles.—Terra-cotta plates, cups, sugar bowl, decanters, tumblers, soup tureen, pots, and dinner set; water pitchers. 218

109 Hussein Ousta, Bollo, Castamouni.—Copper decanter and drinking cups. 218

110 Mehemed Ousta Hadji, Castamouni, Castamouni.—Copper cup. 218

111 Hussein, Ousta, Castamouni.
a Copper decanter cup, and dinner set. 218
b Water pitcher. 224

112 Bagdad, Government of.—Silver goblet and saucer, brass cup. 218

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Household Utensils, Woven Goods.

113 Jerusalem, Government of, Syria.—Earthen cup. 218

114 Zaframbolo, Government of, Castamouni.—Marble drinking cups. 218

115 Vissoka, Government of, Bosnia.—Coffee cup and saucer. 218

116 Giorki, Bérat, Yanina.—Pitchers and dishes. 218

117 Boch Kirkor, Aintab.—Forks and spoons. 218

118 Avedis Papazogla, Trebizond.—Copper pitcher, water pots, decanter, etc. 218

119 Assi Agha, Trebizond.
a Plate. 218
b Chandelier. 223

120 Ali Agha, Roostchook, Danube.—Coffee and tea set, decanter and plate, glasses, jam pots, spoon holder, tumbler, and brandy service. 218

121 Abdourahman, Mehemed Ousta, Castamouni, Castamouni.—Dinner sets. 218

122 Miran Moumdjia, Constantinople.—Picture frame. 220

123 Rizzo Giorki, Yanina, Yanina.—Looking-glass frames. 220

124 Moustapha, Effendi, Constantinople.—Brass brazier. 222

125 Brahim Agha, Hadji, Aintab.—Bellows. 222

126 Ovakim, Constantinople.—Lantern. 223

127 Tanasse, Yanina, Yanina.
a Brass chandelier, candlesticks, censer. 223
b Hand bell, scales, steelyards, pestle and mortar, liquor flask. 224

128 Usine Hassan, Retimo, Crete.—Chandeliers. 223

129 Abdoulah, Hadji, Bosnia.
a Gilt copper lantern. 223
b Copper water pots. 224

130 Suleiman, Bosnia.—Coffee-grinders. 224

132 Raz Oglou Hussein, Bello, Castamouni.—Copper tea pot, coffee pot. 224

133 Moustapha, Constantinople.
a Mortar and pestle. 224
b Wash basin. 225

134 Keur Ali, Koniah, Koniah.—Earthen pitcher. 224

135 Jacob Ousta, Bollo, Castamouni.—Copper vase, refrigerator, water pitcher, and tea pots. 224

136 Prévézè, Government of, Yanina.—Dishes. 224

137 Kara-Hissar, Government of, Sivas.—Wooden spoons. 224

138 Medina, Government of, Hidjaz.—Coffee pot and roaster. 224

139 Espahi, Tripoli, Tripoli.—Pestle and mortar. 224

140 Ali Ousta, Koniah.—Earthen pitchers. 224

141 Abdourahman, Castamouni, Castamouni.—Copper plate. 224

Yarns and Woven Goods of Vegetable or Mineral Materials.

142 Aintab, Government of.—Reed mat. 229

143 Basra, Government of, Bagdad.—Palm leaf mats. 229

144 Bagdad, Government of.
a Palm mats. 229
b Cotton fabrics. 230
c Linen fabrics, coverlet. 233

145 Cherif Effendi, Aintab.—Mat. 229

146 Tiraki Selim Agha, Retimo, Crete.—Cotton fabric. 230

147 Salih, Tripoli.—Cotton tissue. 230

148 Tanach, Yanina.—Cotton fabric. 230

149 Tchoula Cheyfi, Aintab, Aleppo.—Cotton cloth. 230

150 Seid Cherif, Aleppo.—Cotton tissues. 230

151 Razakoula, Aleppo.—Embroidered cotton fabric. 230

152 Pirik Oglou, Pedros, Aleppo.—Cotton tissue. 230

153 Ounedji, Osman, Castamouni.—Duck. 230

154 Bolad, Nicolas, Damascus.—Cotton fabric. 230

155 Nerssez, Marach, Aleppo.
a Sheeting, etc. 230
b Printed calicoes. 232

156 Moustapha Bey, Castamouni.—Sheeting. 230

157 Maktès Bagdo, Ourpha, Aleppo.
a Sheeting. 230
b Printed calicoes. 232

158 Mehemeda, Nabachir du Tidjan, Canea, Crete.—Cotton fabric. 230

159 Mehamed Bin Adoura, Tripoli, Tripoli.—Cotton tissue. 230

160 Mahmoud, Effendi, Damascus.—Cotton fabric. 230

161 Mahmoud Cozzi, Tripoli, Tripoli.—Cotton tissue. 230

162 Mitchez, Yanina.—Cotton foulards. 230

163 Kesban, Madame, Koniah.—Cotton yarn. 230

164 Kaisparexeko & Co., Aleppo.—Cotton fabrics. 230

165 Koussou Kirkor, Aintab, Aleppo.
a Sheeting. 230
b Printed calicoes. 232

166 Ibrahim, Miss, Dardanelles.—Cotton fabric. 230

167 Ibrahim Agha, Canea, Crete.—Cotton shirting. 230

168 Ilias Hatti, Aleppo.—Silk and cotton tissue. 230

169 Ibrahima, Cyprus.
a Cotton fabrics. 230
b Handkerchief and napkin stuff, counterpane, sheet, and table cloth. 233

170 Iskilidjan, Canea, Crete.
a Cotton fabrics and thread. 230
b Linen napkins. 233

171 Mansour, Hadji, Tripoli, Tripoli.—Cotton coverlet. 230

172 Aghop, Hodja, Adrianople.—Cotton cord. 230

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Woven Goods.

173 Ilias, Hodja, Aleppo.
a Embroidered cotton fabrics. 230
b Colored cotton fabric. 231

174 Mehemed Agha, Hadji, Bartia, Castamouni.—Cotton fabric. 230

175 Hassan, Ousta, Angora.—Cotton thread. 230

176 Hassan Ali, Houdehida, Yiemen.—Cotton fabrics; curtains. 230

177 Hassan Chaban, Houdehida, Yiemen.—Cotton fabrics. 230

178 Hakim, Hadji, Bros., Aleppo.
a Embroidered cotton fabric, tissues. 230
b Silver-embroidered table cloth. 233

179 Constantinople, Government of.—Cotton cloths. 230

180 Aintab, Government of, Aleppo.—Tent curtains. 230

181 Beyroot, Government of, Syria.—Cotton fabrics. 230

182 Aleppo, Government of.—Cotton tissues. 230

183 Karraissalo, Government of, Adana.—Cotton thread. 230

184 Kerbella, Government of, Bagdad.—Cotton yarn. 230

185 Kara-Hissar, Government of, Sivas.
a Cotton threads and fabrics. 230
b Calicoes. 232
c Linen cloths and duck, towels, etc. 233

186 Erzeroum, Government of.
a Cotton cloth. 230
b Unbleached linen. 233

187 Nich, Government of, Danube.
a Cotton tissues. 230
b Linen, coverlets, etc. 233

188 Gasko, Gaspard, Aleppo.—Cotton fabric. 230

189 Eminé, Koniah.—Shirting. 230

190 Esmé, Ani, Koniah.
a Sheeting. 230
b Linen textile. 233

191 Edilé Factory, Damascus.—Cotton yarn. 230

192 David Ilias, Yanina.—Cotton thread, twist, and cord. 230

193 Chicho Zeko, Makrincha, Yanina.—Quilts. 230

194 Bassardji Maktès, Ourpha, Aleppo.—Cotton cloths. 230

196 Bruffel, Kricca, & Co., Smyrna.—Spun cotton. 230

197 Ahmed Agha, Aleppo.—Cotton thread. 230

198 Abir Tarip, Aleppo.—Cotton fabric. 230

199 Abadji Molagha, Aintab, Aleppo.—Divan stuff. 230

200 Antoli, Miss Maidos, Dardanelles.—Spun cotton. 230

201 Aiché, Konaih.—Shirting. 230

202 Ayaza Oglon Ahmed, Kangre, Castamouni.—Cotton cloths. 230

203 Allahjadji Alop, Aleppo.—Cotton tissue. 230

204 Atidgé, Madame, Koniah.—Cotton cloth. 230

205 Astardji Narssès, Aintab, Aleppo.—Cotton fabrics. 230

206 Ahmed, Agha, Sivas, Sivas.
a Cotton thread. 230
b Linen. 233

207 Papazaki, Manoli, Candia, Crete.—Counterpane. 231

208 Iskilechina, Crete, Crete.—Striped ticking. 231

209 Abdul Hahat, Mosul, Bagdad.
a Cottonade. 231
b Towels, bathing linen, and handkerchiefs. 233

210 Mehemed Ali, Zoubid, Yiemen.—Printed calicoes. 232

211 Kachpi, Zoubid, Yiemen.—Printed calicoes. 232

212 Hana Meti, Mosul, Bagdad.—Printed calico. 232

213 Hartin, Adana, Adana.—Printed calico. 232

214 Ali Hadji, Koniah.—Printed calico. 232

215 Mahmoud Hadji, Aleppo.—Printed calicoes. 232

216 Chaban Hussein, Zoubid, Yiemen.
a Calico. 232
b Bathing linen. 233

217 Van, Government of, Erzeroum.
a Calicoes. 232
b Linen cloths. 233

218 Garabet, Tokat, Sivas.—Printed calico. 232

219 Caba Oglou Mehemed, Gueugnek. Castamouni.—Printed calico. 232

220 Ahmed Ousta, Castamouni.—Printed calico. 232

221 Aghop, Sivas, Sivas.—Printed calicoes. 232

222 Ezinchan, Government of, Erzeroum.
a Printed calicoes. 232
b Bathing linen and napkins. 233

223 Abdoulah Keiré, Zoubid, Yiemen.
a Calico. 232
b Handkerchief. 233

224 Youssuf, Mosul, Bagdad.—Bathing linen. 233

225 Youssouf Gunki, Diarbekir.—Linen cloth. 233

226 Yasmadji, Mehemed, Tefrik, Constantinople.—Fabric for counterpanes and pillows. 233

227 Wasikili, Yanina.—Linen cloth. 233

228 Vidal, J. M., Constantinople.—Linens. 233

229 Thomas, Diarbekir.—Bathing linen. 233

230 Ohannès, Agha, Angora.—Pillow case. 233

231 Ohan, Diarbekir.—Thread. 223

232 Musulmé, Madame, Koniah.—Table cloth. 233

233 Marquar, Trebizond.—Napkins and bathing apron. 233

234 Mourouk, Oglou Ohanès, Brousse.—Towels, napkins, bathing linen, etc. 233

235 Mehemed Effendl, Denizli, Aydin.—Linen, etc. 233

236 Mehemed Effendi, Smyrna.—Linen, napkins, divan cover, towels, burnous, sheeting, etc. 233

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Woven Goods.

237 Mehemed, Merzifoun, Sivas.—Bed curtains, sheet, and towels. 233

238 Mehemed Effendi, Kara-Sou, Aydin.—Bathing linen. 233

239 Mehemed Agha, Castamouni.—Linen sheeting. 233

240 Ousta Mehemed, Koniah, Koniah.—Spun hemp and flax. 233

241 Kodan, Smyrna.—Bed covers. 233

242 Kamile, Madame, Tripoli, Syria.—Towels. 233

243 Kicho Dimitri, Yanina.—Linen. 233

244 Karasch Oglou, Tokat, Sivas.—Linen thread. 233

245 Karabet, Malatia, Diarbekir.—Thread textile. 233

246 Ibrahim Agha, Brousse.—Bathing towels, counterpane, etc. 233

247 Iskiladjan, Dellalé, Canea, Crete.—Towels. 233

248 Harline, Merzifoun, Sivas.—Towels. 233

249 Hatna Gros, Mosul, Bagdad.—Handkerchiefs. 233

250 Mehemed, Hadji, Tripoli, Tripoli.—Linen coverlet. 233

251 Mohammed, Hadji, Malatia, Diarbekir.—Thread. 233

252 Cherisor, Government of, Bagdad.—Linen fabric. 233

253 Bigdé, Government of, Koniah.—Spun hemp. 233

254 Damascus, Government of, Syria.—Linen. 233

255 Smyrna, Government of.—Towels and bed covers. 233

256 Volonia, Government of, Yanina.—Linen. 233

257 Yanina, Government of.—Spun hemp. 233

258 Gabriel, Sivas, Sivas.—Towels. 233

259 Faladj Imssi, Malatia, Diarbekir.—Thread textile. 233

260 Dimitri, Yanina.—Shirting, pillow cases, and divan cover. 233

261 Fatma, Madame. Koniah.—Linen. 233

262 Duran Effendi, Constantinople.—Table cloth, cushion cover, etc. 233

263 Salé Agha, Madame, Koniah.—Linen pillow case. 233

264 Dervich Oglou, Kokas, Brousse.—Bathing linen, etc. 233

265 Cadir, Suleimaneeyah, Bagdad.—Sheets. 233

266 Cazas, Thomas, Diarbekir.—Twisted thread. 233

267 Buftam, Mosul, Bagdad.—Counterpane. 233

268 Ahmed Effendi, Madame, Canea, Crete.—Towels. 233

269 Ana, Madame, Mosul, Bagdad.—Pillow case. 233

270 Aicha, Madame, Koniah.—Linen. 233

271 Azar Ogli, Tokat, Sivas.—Linen cloth. 233

272 Abdul Kader, Koniah.—Table cloth. 233

273 Ali Imi, Madame, Koniah.—Towels. 233

Woven and Felted Goods of Wool, etc.

274 Zokopolani, Maria, Canea, Crete.—Wool fabric. 235

275 Zaferembolo Orphan School, Zaferembolo, Castamouni.—Cloth for garments. 235

276 Vassil Postak, Salonica.—Cloth. 235

277 Youssoul Blouna, Aleppo.—Woolen yarn. 234

279 Tasse Kochman, Berat, Yanina.—Cloth. 235

280 Tathma, Trebizond.—Woolen fabrics. 235

281 Trentefil, Miss, Otoulouk, Adrianople.—Pants stuff. 235

282 Sahak Ousta, Angora.—Woolen fabric. 235

283 Kamps, Oglou, Angora.—Woolen fabric. 235

284 Ohannès Agha, Angora.
a Woolen fabrics. 235
b Carpet, tapestry. 239

285 Maripa Golopo, Canea, Crete.—Striped yellow cloth. 235

286 Mollat Ahmed, Salonica.—Wool fabric. 235

287 Moussé Kapsal, Yanina.—Woolen fringe. 235

288 Moustapha, Tripoli, Tripoli.—Wool yarn. 235

289 Mehemed Effendi, Boldan, Aydin.—Cloth for garments. 235

290 Mehemed Effendi, Saroukhan, Aydin.—Cloth for garments. 235

291 Mehemed Ousta, Biledjekli, Brousse.—Furniture cloth. 235

292 Marie, Madame, Koniah.
a Woolen ribbon. 235
b Cushion carpet. 239

293 Mehemed. Hadji, Mousra, Castamouni.—Woolen fabric. 235

294 Mehemed Agha, Hadji, Bartia, Castamouni.—Woolen fabric. 235

295 Mahmouda, Hadji, Sivas, Sivas.—Felts. 235

296 Erzeroum, Government of.—Woolen fabrics. 235

297 Kendi Oglou Trantchi, Islimia, Adrianople.—Woolen fabrics. 235

298 Usni, Hadji, Brousse.
a Felts. 235
b Felt blanket. 237

299 Constantinople, Government of.
a Cloths. 235
b Flannels. 236
c Woolen counterpanes. 237
d Carpet. 239

300 Nich, Government of, Danube.
a Woolen fabrics. 235
b Carpets. 239

301 Ineboli, Government of, Castamouni.—Woolen yarn. 235

302 Van, Government of, Erzeroum.
a Cloth for pants, woolen fabric. 235
b Carpets. 239

303 Bagdad, Government of.
a Woolen yarn and textiles. 235
b Goat-hair fabric. 240

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

304 Fevfik, Erzeroum.—Woolen yarn. 235

305 Djamian, Gabriel, Kara-Hissar.—Woolen fabric. 235

306 Cheri Oglou Ahmed Agha, Kangre, Castamouni.
a Woolen textile.
b Angora wool yarn. 235, 240

307 Cheri Oglou Ahmed Agha, Zafrembolo, Castamouni.—Woolen textiles. 235

308 Ahmed Agha, Madame, Mousra, Castamouni.—Woolen fabric. 235

309 Ahmed Ousta, Balat, Brousse.—Cloth. 235

310 Zaha, Mosul, Bagdad.
a Shawls. 237
b Carpet. 239

311 Tehezi Agha, Adrianople.—Blanket. 237

312 Sali Agha, Madame, Koniah.—Woolen bag. 237

313 Poto Yani, Kerénié, Yanina.—Woolen counterpane. 237

314 Ousta Ahmed, Cherisor, Bagdad.—Coverlet. 237

315 Ousta Mehemed, Suleimaneeyah, Bagdad.—Woolen coverlet. 237

316 Mekon, Kiron, Sivas.—Woolen shawls. 237

317 Mehulourt, Suleimaneeyah, Bagdad.—Counterpane. 237

318 Mosla Mahmoud, Diarbekir.—Woolen sheet. 237

319 Moustapha, Suleimaneeyah, Bagdad.—Coverlet. 237

320 Matros, Erzeroum.—Blanket. 237

321 Icrahima, Canea, Crete.—Woolen counterpane. 237

322 Marie, Gueuridjé, Monastir.—Woolen coverlet. 237

323 Cassim Bakar, Hadji, Tripoli, Tripoli.—Blankets and coverlets. 237

324 Kerénié, Government of, Yanina.—Woolen cover. 237

325 Mosul, Government of, Bagdad.—Shawls. 237

326 Cherifé, Madame, Koniah.—Blanket. 237

327 Abdoullah Oglou Hassan, Guengnek, Castamouni.—Woolen shawl. 237

328 Nicolaki, Yanina.—Organzine. 238

329 Minodoro, Sophia, Danube.—Woolen and silk fabric. 238

330 Oulmia, Hadji, Sophia, Danube.—Woolen and silk fabrics. 238

331 Dervich, Oglon Ko Kas, Brousse.—Mohair. 238

331*a* Deli Mourad, Diarbekir.—Various fabrics. 238

332 Casas, David, Yanina.—Organzine. 238

333 Yanaki Micholi, Prevézé, Yanina.—Carpet. 239

334 Yorgaki, Miss, Dardanelles.—Tapestry. 239

336 Said Effendi, Sivas, Sivas.—Carpets. 239

337 Rakinié, Madame, Koniah.—Prayer carpet. 239

338 Papa Giorki, Volonia, Yanina.—Carpet. 239

339 Rahimé, Madame, Haltah, Koniah.—Carpet 239

340 Osman Agha, Sivas, Sivas.—Divan carpet. 239

341 Omer Agha, Sivas, Sivas.—Carpets. 239

342 Ohanna, Angora.—Carpet.

343 Manapola, Catherine, Sfakia, Crete.—Carpet. 239

344 Mourad Kasson, Ayvadjik, Dardanelles.—Carpet. 239

345 Mehemed Oglou Alichan, Turgosklou, Koniah.—Prayer and other carpets. 239

346 Mehemed Agha, Gabwva, Danube.—Carpet. 239

347 Mohamed, Hanari, Mecca.—Carpet. 239

348 Mehemed Kirkit, Tripoli, Tripoli.—Carpets. 239

349 Marie, Madame, Larik, Koniah.—Cushion carpet. 239

350 Karabet, Kangre, Castamouni.—Carpet. 239

351 Kerim, Suleimaneeyah, Bagdad.—Prayer carpet. 239

352 Ibrahim Effendi, Salonica.—Carpets. 239

353 Hussein Agha, Sivas, Sivas.—Divan carpet. 239

354 Hamparssoum, Sivas, Sivas.—Carpet. 239

355 Hassan, Hadji, Kircheré, Angora.—Carpet. 239

356 Mehemed, Hadji, Kircheré, Angora.—Carpet. 239

357 Tahera, Hadji, Volonia, Yanina.—Carpet. 239

358 Haicha Agha, Koniah.—Carpet. 239

359 Castamouni, Government of.—Carpet. 239

360 Semaré, Government of, Bagdad.—Carpet. 239

361 Rekanié, Government of Aleppo.—Carpets. 239

362 Smyrna, Government of.—Carpets 239

363 Prévézé, Government of, Yanina.—Carpet. 239

364 Oulé, Government of, Bagdad.—Carpets. 239

365 Bourd, Government of, Bagdad.—Carpet and prayer carpet. 239

366 Widin, Government of, Danube.—Carpet. 239

367 D'Andria, Lombard, & Co., Boston, Mass.—Smyrna carpets. 239

368 Chakir, Trebizond.—Carpet. 239

369 Chamdelon, Ohanès, Angora.—Carpet 239

370 Chakir Agha. Ayvadjik, Dardanelles.—Carpet. 239

371 Chicho Zeko, Kerénié, Yanina.—Carpet. 239

372 Allatorini, Piaz, Adana.—Carpet. 239

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Woolen and Silk Goods.

373 Bikė, Madame, Philippopolis, Adrianople.—Carpet. 239

374 Chaban Oglou, Mussein, Guengnek.—Carpet. 239

375 Ali Ani, Larik, Koniah.—Carpet. 239

376 Ali Agha, Ouchak, Brousse.—Divan carpet. 239

377 Ahmed Effendi, Sivas, Sivas.—Carpet. 239

378 Adret, Agha, Diarbekir.—Carpet. 239

379 Adver, Mardin, Diarbekir.—Carpet. 239

380 Abdoullah Effendi, Guelguen, Trebizond.—Woolen carpet. 239

381 Abdi Effendi, Sivas, Sivas.—Carpet. 239

382 Tchorbadji Serkis, Marach, Aleppo.—Goat-hair bag. 240

383 Simon, Piseren, Monastir.—Goat-hair carpet. 240

384 Piseren, Government of, Monastir.—Goat-hair cloth. 240

385 Ludovic & Vallauri, Constantinople.—Table and bench covers. 241

Silk and Silk Fabrics.

386 Sukiasian, Adrianople.
a Raw silk. 242
b Japanese silk. 245

387 Schilizzi, E. F., Adrianople.—Raw silk. 242

388 Temio Petcha, Yenidjė, Danube.—Raw silk. 242

389 Temno Petcha, Yanina.—Raw silk. 242

390 Oustour, Piaz, Adana.—Silk. 242

391 Moustapha Effendi, Ayvadjik, Dardanelles.—Raw silk. 242

392 Mehamoud Dekiz, Hadji, Tripoli, Tripoli.—Raw silk. 242

393 Hassan, Cyprus.
a Silk. 242
b Silk fabrics. 245
c Silk handkerchief. 247

394 Hassan Effendi, Cyprus.
a Silk. 242
b Silk fabric and taffetas. 245

395 Zaferemboli, Government of, Castamouni.—Raw silk. 242

396 Bėrat, Government of, Danube.—Raw silk. 242

397 Smyrna, Government of.—Raw silk. 242

398 Samos, Government of, Castamouni.
a Raw silk. 242
b Silk shirting. 245
c Silk lace and gauzes. 247

399 Bagdad, Government of.
a Raw silk. 242
b Foulards. 245
c Embroidered foulards, etc. 246
d Silk fichus, belt and sabretaches. 249

400 Demerdji Constantin, Madame, Candia, Crete.—Raw silk. 242

401 Andonafake, Anasthas, Canea, Crete.—Raw silk. 242

402 Antakia Caimakan, Antakia, Aleppo.—Raw silk. 242

403 Sayas Karabetli, Salonica.—Silk. 243

404 Sali Kamber, Ichkodra, Monastir.
a Silk twist, skeins, etc. 243
b Organzine. 245
c Silk garters. 247
d Silk cords, fringes, etc. 249

405 Kandilaphtaki Mehemeda, Candia, Crete.
a Silk skeins. 243
b Organzine. 245
c Silk braid. 249

406 Yanina, Government of.—Silk. 243

407 Retchani, Government of, Yanina.—Silk. 243

408 Brousse, Government of.—Twisted silk. 243

409 Cazas, David, Yanina.
a Silk threads and twists. 243
b Silk buttons, ribbons, etc. 249

410 Ahmed Mehamoudik, Yanina, Bosnia.—Silk. 243

411 Mavrilis, Emanuel E. G., Brousse.—Silk. 244

412 Litolu Nakous Oglou, Aleppo.—Silk fabrics. 244

413 Yekahim, Hadji, Aleppo.—Embroidered silk and silver fabric. 244

414 Ilias, Hodja, Aleppo.—Embroidered silk fabrics. 244

415 Hakin Hadji Bros., Aleppo.
a Silk fabrics. 244
b Taffetas, satins, etc. 245
c Silk tissue. 247

416 Ineboli, Government of, Castamouni.
a Raw spun silk. 244
b Organzine. 245

417 Demitraki, Constantinople.—Silk fabrics. 244

418 Cazas, Thomas, Diarbekir.
a Silk twist. 244
b Silk belt. 247
c Ribbons. 248
d Silk buttons. 249

419 Schakal, Anton, Aleppo.—Cotton and silk tissue. 245

420 Seid Yayia, Damascus.—Silk fabric. 245

421 Thomas Isaac, Van, Erzeroum.—Silk foulard. 245

422 Tetoullah, Diarbekir.—Silk fabrics. 245

423 Tasse Kochman, Berat, Yanina.—Silk fabric. 245

444 Vidal, J. M., Constantinople.—Silk fabrics. 245

445 Seid Abdul Hamid, Damascus.
a Silk fabric, mixed cotton and silk fabrics. 245
b Silk scarf, coverlet, belt, and pillow case. 247

446 Pansein, Yanina.—Silk shirting. 245

447 Nessibo, Madame, Ichkodra, Monastir.
a Silk fabric. 245
b Lace. 247

448 Sebou, Nicolas, Damascus.—Silk fabrics. 245

449 Nakos, Mikail, Aleppo.—Silk fabrics; mixed cotton and silk fabrics. 245

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Silk Goods.

450 Bolad, Nicolas, Damascus.
a Silk fabrics, mixed cotton and silk fabrics. 245
b Figured silk fabrics. 246
c Silk goods. 247
d Silk cord. 249

451 Mourad Agha, Brousse.
a Silk fabrics, foulards. 245
b Silk gauzes. 247

452 Moustapha Effendi, Brousse.—Organzine. 245

453 Mourouk Oglou Ohanès, Brousse.
a Silk foulards. 245
b Silk gauzes. 247

454 Mikali, Redjani, Yanina.—Silk fabrics. 245

457 Kirkor, Mamour, Diarbekir.—Silk fabrics. 245

458 Mallah Ahmed, Malech, Salonica.—Silk fabrics. 245

459 Metrouge, Berat, Yanina.—Silk tissue. 245

460 Kendi Oglou Trantchi, Adrianople.—Silk fabrics. 245

461 Talep, Hadji, Brousse.
a Silk fabrics, satin, etc. 245
b Gauzes. 247

463 Ibrahima, Cyprus.
a Silk fabric and mixed cotton and silk fabric. 245
b Silk handkerchief. 247

464 Youssouf, Hodja, Aleppo.—Silk and silver foulards. 245

465 Aghop, Hodja, Adrianople.
a Organzine. 245
b Ribbons. 248
c Cord. 249

466 Thomas, Hodja, Diarbekir.—Silk fabric. 245

467 Thomas, Hadji, Malatia, Diarbekir.—Silk fabrics and foulards. 245

468 Heleni, Berat, Yanina.
a Silk fabric. 245
b Silk gauze. 247

469 Hassan Ali, Houdehida, Yieman.
a Silk and cotton fabrics. 245
b Silk pillow case. 247

470 Hakim Bros., Aleppo.
a Silk and cotton mixed piqué, silk fabrics, etc. 245
b Silk handkerchiefs and tissue. 247

471 Gasko, Gaspard, Aleppo.—Cotton and silk mixed fabric. 245

472 Vassili, Piaz, Adana.—Silk cloth. 245

473 Gascandil, Trebizond.
a Silk tissue and coverlet. 245
b Silk belt. 247

474 Aleppo, Government of.—Silk crape tissue. 245

475 Amassia, Government of, Sivas.—Silk fabrics for shirts and bed coverings. 245

476 Gergi Melouk, Damascus.
a Silk fabric. 245
b Silk coverlet. 247

477 Beyroot, Government of, Syria.
a Silk fabrics, organzine, etc. 245
b Silk laces, belts. 247
c Ribbons. 248
d Silk embroideries. 249

478 Karkali, Dimitri, Yanina.—Silk fabrics. 245

479 Eminé, Trebizond.
a Tissue for shirting. 245
b Silk belt. 247

480 Deli Mourad, Diarbekir.
a Silk fabric. 245
b Silk prayer carpet. 247

481 Chicho Zeka, Volonia, Yanina.—Silk fabric. 245

482 Constanti Giorki, Berat, Yanina.—Silk fabrics. 245

483 Birkor, Trebizond.—Colored tissues. 245

484 Bezaz Effendi, Diarbekir.—Silk fabrics. 245

485 Atanach, Miss, Dardanelles.—Silk sheet. 245

486 Ahmed Effendi, Mamour, Diarbekir.—Silk fabric. 245

487 Abir Tarip, Aleppo.—Silk fabric. 245

488 Abbas Riza, Damascus.—Silk fabric. 245

489 Alil Fakildin, Damascus.—Silk fabric. 245

490 Abdul Hamid, Damascus.—Silk foulard. 245

491 Anagnosti, Yanina.—Silk fabric. 245

492 Anastassi, Yanina.—Silk shirting. 245

493 Ana, Yania, Bosnia.—Silk and cotton fabric. 245

494 Nefissé, Madame, Ichkohra, Monastir.
a Embroidered foulards. 246
b Silk coverlet. 247

494*a* Elias Hatti, Hadji, Aleppo.—Upholstery satins. 246

495 Marionga, Constantinople.—Silk counterpane. 246

496 Mehemed Emin, Constantinople.—Upholstering fabrics. 246

497 Matié, Lady, Adrianople.—Figured silk fabric. 246

498 Ludovic & Vallauri, Constantinople.—Upholstery and divan fabrics. 246

499 Kadir Oglou Abdul Kader, Said Ili, Koniah.—Divan cover. 246

500 Gueudjehan, Ohannès, Constantinople.—Silk fabrics, taffeta, moreen, etc. 246

501 Constantinople, Government of.—Silk curtain fabrics. 246

502 Sagoundjaki, Lefteraki, Canea, Crete.—Silk gauze. 247

503 Seid Alil, Damascus.—Silk goods. 247

504 Thomas, Diarbekir.
a Silk belt. 247
b Silk ribbons. 248

505 Taquoui, Madame, Adrianople.—Gauzes. 247

506 Regnier, Yanina.—Gauze. 247

507 Rechid Effendi, Damascus.—Silk lace. 247

508 Omeraki, Ibrahima, Canea, Crete.—Silk gauze. 247

509 Nefissé, Madame, Tripoli, Syria.—Silk shirts 247

510 Nasmi Effendi, Madame, Candia, Crete.—Silk gauze. 247

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Silk Goods, Clothing.

511 Naoun Miltelete, Aleppo.—Silk and cotton and silk tissues. 247

512 Monnouk Ozlou, Brousse.—Silk fabric and aprons. 247

513 Munirè, Brousse.—Silk lace. 247

514 Milaki, Nicolaki, Melle, Canea, Crete.—Silk gauze. 247

515 Maroli, Kara Yanapola, Canea, Crete.—Silk crape. 247

516 Marouli, Madame Giorgui Sefakanaki, Candia, Crete.—Silk gauze. 247

517 Meuzeurlé Fathma, Candia, Crete.—Gauze. 247

518 Marie, Yanina.—Silk gauze. 247

519 Moussa Chaouch, Oglou Ibrahim, Canea, Crete.—Gauzes. 247

520 Ismail Agha, Hadj Brousse.—Silk counterpane. 247

521 Istiphanidja, Candia, Crete.—Silk gauze. 247

522 Kamil, Tripoli, Syria.—Embroidered gauze foulard and silk pillow cases. 247

523 Mahmoud Deguiz, Hadji, Tripoli, Tripoli.—Silk coverlets. 247

524 Ismail Agha, Hadji, Candia, Crete.—Silk gauze. 247

525 Mikali, Hadji, Tripoli, Syria.—Silk coverlets. 247

527 Gotha, Tripoli, Tripoli.—Silk shirts. 247

528 Kara-Hissar, Government of, Sivas.—Silk belt. 247

529 Piseren, Government of, Monastir.—Silk caps. 247

530 Emzia, Ibrichindji Nicoli, Mme., Candia, Crete.—Gauze. 247

531 Dervich Oglou Kokas, Brousse.—Silk gauzes, silk burnous, scarf and belt. 247

532 Cazas Abdoullah, Damascus.
a Silk belts. 247
b Silk cords, etc. 249

533 Cazas Ahmed, Damascus.—Silk crochet belt. 247

534 Ana, Madam, Mosul, Bagdad.—Silk lace. 247

535 Cazas Said, Tripoli, Syria.—Silk belts and suspenders. 247

536 Assibi, Madame, Koniah.—Silk lace. 247

537 Avadiz, Miss, Dardanelles.—Silk lace. 247

537*a* Makboubi, Trebizond.—Silk towels and shirting. 247

538 Isaac Effendi, Bello, Castamouni.—Silver ribbon. 248

539 Selim, Mosul, Bagdad.—Turban cord. 249

540 Sali Kamber, Piseren, Monastir.—Gold and silver filigree cord. 249

541 Idrissi Agha, Hadji, Bonandji, Adrianople.—Cord. 249

Clothing, Jewelry, Ornaments; Traveling Equipments, etc.

542 Zoardji Gocha, Yanina.—Goat-hair shepherd's vest. 250

543 Yani, Smyrna.—Men's suit. 250

544 Zahardji Gotcha, Yanina.—Vests. 250

545 Yani, Hadji, Berat, Yanina.
a Vests. 250
b Gaiters. 251

546 Yani, Forol, Trebizond.
a Woolen hose. 250
b Woolen gloves. 251

547 Vely Bey, Sivas, Sivas.—Woolen socks. 250

548 Seid Hassan, Mosul, Bagdad.—Turkish garment. 250

549 Siméon, Trebizond.—Ladies' trowsers, jacket. 250

550 Seid Cherif, Aleppo.—Cotton belts. 250

551 Seid Abdul Hamid, Damascus.
a Cotton scarf. 250
b Embroidered cap and slippers. 251
c Tobacco pouch. 254

552 Raphaelian, Gabriel, Constantinople.
a Collars and cuffs. 250
b Crochet caps, slippers. 251
c Crochet fichu, curtains, etc. 252

553 Rinko, Permidi, Yanina.—Ladies' hose. 250

554 Palassé, Madame, Trebizond.—Gown. 250

555 Rina, Yanina.—Chemise, embroidered with gold. 250

556 Ousta Bachou, Forol, Trebizond.—Woolen hose. 250

557 Ousta Yano, Bonandji, Adrianople.—Woolen hose. 250

558 Ousta Yani, Miss, Bonandji, Adrianople.—Men's woolen hose. 250

559 Nogho, Uskup, Monastir.—Woolen apron and stockings. 250

560 Moustapha Agha, Damascus.—Woolen garment. 250

561 Moustapha, Miss, Balekoi, Dardanelles.—Bridal trousseau. 250

562 Moussa Chaouch Oglou Ibrahim, Canea, Crete.
a Silk embroidered shirt, etc. 250
b Tobacco pouch. 254

563 Mahmoud Agha Djiri, Damascus.—Turkish garments. 250

564 Mehemed Abdul Hamid, Houdehida, Yiemen.—Drawers. 250

565 Mehemed Ousta, Koniah.—Goat-hair jacket. 250

566 Mikahil Seboul, Damascus.—Turkish garments. 250

567 Lambron, Phrasine, Yanina.—Chemise. 250

568 Mer Allah, Zoubid, Yiemen.—Percale shirt. 250

569 Mitscherè, Marie, Yanina.—Men's and women's hose. 250

570 Mikahl Agha, Adrianople.—Jacket. 250

571 Karabet, Yangre, Castamouni.—Cloak belt. 250

572 Kurschu Casmad, Diarbekir.—Wolf-skin jacket. 250

573 Isaac, Mosul, Bagdad.—Turkish garment. 250

574 Ibrahim Agha, Brousse.—Bathing suit, woolen burnous. 25

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45

Clothing, Fancy Articles.

575 Osman, Hadji, Koniah.—Turkish woolen belt. 250

576 Hadj, Trebizond.—Ladies' trowsers, vest. 250

577 Ahmed, Hadji, Aleppo.—Turkish belt. 250

578 Hakim Bros., Hadji, Aleppo.—Silk, ournous, and other garments. 250

579 Mikahili, Hadji, Adrianople.—Woolen garments. 250

580 Osman, Hadji, Suleimanceyah, Bagdad.—Shepherd's cloak. 250

581 Hassan, Cyprus.—Silk underskirt. 250

582 Hussien Chaban, Zoubia, Ziemen.—Cotton jacket, Turkish belt. 250

583 Hassan Agha, Trebizond.—Turkish trowsers and vest. 250

584 Hassan Effendi, Kotchettissar, Castamouni.—Woolen belts. 250

585 Haler Oglou Hassan, Kara Baitar.—Woolen hose. 250

586 Haler Oglou Hassan, Koniah.—Woolen hose. 250

587 Haidar, Mosul, Bagdad.—Turkish garment. 250

588 Haido, Bagdad.—Turkish garment. 250

589 Haldji Oulmia, Sophia, Danube.
a Turkish belts. 250
b Woolen gloves, mittens. 251
c Necktie, etc. 254

590 Helene, Miss, Bonandji, Adrianople.—Waterproof cloak. 250

591 Asco, Giorgio, Yanina.—Vest. 250

592 Heleni, Permidi, Yanina.
a Ladies' hose. 250
b Gold embroidered fichu. 252

593 Giorki, Miss, Bonandji, Adrianople.—Woolen hose. 250

594 Damascus, Government of, Syria.—Woolen hose. 250

595 Bourd, Government of, Bagdad.—Stockings. 250

596 Ohannes Agha, Angora.
a Woolen and cotton hose. 250
b Head-dress ornament, belt. 254

597 Mentefek, Government of, Bagdad.—Turkish garment. 250

598 Kara-Hissar, Government of, Sivas.—Belts. 250

599 Semaré, Government of, Bagdad.—Veils, Turkish garment. 250

600 Nedjep, Government of, Bagdad.—Turkish garments. 250

601 Van, Government of, Erzeroum.—Woolen belt. 250

601*a* Uskup, Government of, Monastir.—Woolen stockings. 250

602 Ezinchan, Government of, Erzeroum.—Turkish belt, woolen trowsers. 250

603 Piseren, Government of, Monastir.—Turkish belt, lisle thread hose. 250

604 Gotha, Tripoli, Tripoli.
a Embroidered silk vest. 250
b Woman's hat. 251

605 Fatma, Madame, Koniah.
a Woolen hose. 250
b Purse. 254

606 Elvadji Youssouf, Diarbekir.—Vest. 250

607 Erza Yaco, Yanina.—Albanian skirt. 250

608 Eminé, Trebizond.—Silk shirt. 250

609 Diptou Noutoukdji, Damascus.—Woolen belt. 250

610 Delepné, Koniah.—Woolen stockings. 250

611 Despot, Yanina.—Women's hose. 250

612 Delal Mehemed, Diarbekir.—Cloak. 250

613 Dervichian, Smyrna.
a Shirt. 250
b Embroidered belt, silk lace. 252
c Ladies' cuffs and collars, necktie and cushion. 254

614 Cazas David Ilias, Permidi, Yanina.
a Hosiery. 250
b Cotton cap. 251
c Cotton ribbons, and buttons. 252
d Purse, garters. 254

615 Christo, Daughter of, Bonandji, Adrianople.—Waterproof. 250

616 Christo, Bonandji, Adrianople.—Turkish garments. 250

617 Cazas Said, Tripoli, Syria.—Belt. 250

618 Cheik Moussa, Mardin, Diarbekir.—Arabian garment. 250

619 Constanti, Miss, Stankeny, Dardanelles.—Socks. 250

620 Chavirdi Hadji, Ourpha, Aleppo.—Vests. 250

621 Balthazar, Miss, Dardanelles.—Cotton chemises. 250

622 Bagdad, Government of.
a Turkish garments, embroidered belt. 250
b Boots and shoes. 251
c Silver tobacco-box, pipes, Narghilés, pipe-bowls, combs, pouches, etc. 254

623 Abdul Kader Ousta, Koniah—Embroidered jacket. 250

624 Abdourahman, Erzeroum.—Sheep-skin jacket. 250

625 Moustapha, Abadji, Bigha, Aleppo.—Vest. 250

626 Ismail, Abadji, Aintab, Aleppo.—Vest. 250

627 Abas Ousta, Piseren, Monastir.—Velvet jacket and vest. 250

628 Anastassi, Héleni, Yanina.—Chemise. 250

629 Alexia, Miss, Bonandji, Adrianople.—Men's woolen hose. 250

630 Aiché, Koniah.—Shirt. 250

631 Antaki, Giorki, Aleppo.—Belt. 250

632 Ali, Diarbekir.—Vest. 250

633 Astor, Aleppo.—Woolen socks. 250

634 Atidjé, Madame, Eski-Kariel, Koniah.—Woolen hose. 250

635 Astadji Oglou Narcisse, Aleppo.—Turkish belt. 250

636 Zorié, wife of Ahmed, Yanina.—White cap. 251

637 Zahardj Nocha, Yanina.—Woolen gaiters. 251

638 Zekiyé, Madame, Koniah.—White cap. 251

639 Stéphani, Dardanelles.—Boots and shoes. 251

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Clothing, Needle Work, Fancy Articles.

640 Rahari, Mosul, Bagdad.—Morocco boots. 251

641 Mahmoud Agha, Damascus.—Morocco boots. 251

642 Ferrouch, Mehemed, Tripoli, Tripoli.—Morocco slippers. 251

643 Oulfrouch, Mehemed, Tripoli, Tripoli.—Ladies' boots. 251

644 Mèhadani, Ali, Damascus.—Boots and shoes. 251

645 Mehemed, Houdehida, Yieman.—Leather clogs. 251

646 Mehamed Mousseri, Zoubid, Yiemen.
- *a* Cotton cap. 251
- *b* Handkerchiefs. 254

647 Mahmoud, Tahif, Hidjaz.—Embroidered cap. 251

648 Mehemed, Mosul, Bagdad.—Morocco boots. 251

649 Mahmond, Aintab.—Turkish shoes. 251

650 Mehemed Ali, Mosul, Bagdad.—Morocco boots. 251

651 Ludovic & Vallauri, Constantinople.
- *a* Form for Turkish caps; men's shoes. 251
- *b* Pipes, pipe stems, and bowls, narghilés and requisites, ash receivers, ornamental pictures. 254
- *c* Albanian and Turkish café waiters' costumes; office lady's costume. 257

652 Moustapha, Hadji, Constantinople.—Embroidered velvet slippers. 251

653 Mahmoud, Hadji, Marach, Aleppo.—Men's boots. 251

654 Isaac, Aintab.—Red shoes. 25

655 Hassan Reiss, Rhodes.—Wooden shoes. 251

656 Hassan Reiss, Dardanelles.—Wooden shoes. 251

657 Hassan Sali, Damascus.—Wooden and mother-of-pearl clogs. 251

658 Hamid Moustapha, Bosnia.—Ladies' boots and shoes; wooden clogs, etc. 251

659 Mosul, Government of, Bagdad.—Rhinoceros hide boots. 251

660 Constantinople, Government of.
- *a* Boots and shoes, military caps, etc. 251
- *b* Russia leather whip. 255
- *c* Popular costumes. 257

661 Alidjé, Madame, Koudehida, Yieman.—Palm-wood clogs. 251

662 Duric, Madame, Constantinople.
- *a* Velvet slippers. 251
- *b* Coiffure ornament. 254

663 Dimo, Yanina.—Shoes. 251

664 Dimitri, Yanina.
- *a* Morocco boots. 251
- *b* Morocco belt. 253

665 Cafak Mehemeda, Aintab.—Turkish shoes and slippers. 251

666 Cafak Mahmoud, Marach, Aleppo.—Children's boots and shoes. 251

667 Chaouch Mahmoud Agha, Damascus.—Ladies' boots and shoes; Turkish shoes. 251

668 Baba Chika, Yanina.—Morocco boots and shoes. 251

669 Abhou Oglou Avediz, Marach, Aleppo.—Morocco boots. 251

670 Abhou, Avediz, Marach, Aleppo.—Boots and shoes. 251

671 Abdourahman, Tahif, Hidjaz.—Women's boots and shoes. 251

672 Abdul Keri, Mecca.—Boots and shoes; embroidered cap. 251

673 Abdoullah Arouniyé, Koudehida, Yieman.—Leather clogs. 251

674 Ali bin Chaban, Tripoli, Tripoli.—Morocco boots and shoes. 251

675 Ali Bachakar, Tripoli, Tripoli.—Clogs. 251

676 Ali Nazif, Tripoli, Tripoli.—Morocco boots. 251

677 Ali bin Nazif, Tripoli, Tripoli.—Boots and shoes. 251

678 Atanach, Miss, Dardanelles.
- *a* Velvet slippers. 251
- *b* Crotchet work; pillow case. 252

679 Aghop, Smyrna.
- *a* Ladies' bonnet. 251
- *b* Silver embroidery, lace. 252

681 Zoziè, Yanina.—Silk lace. 252

682 Ziamani, daughter of Nicoli, Canea, Crete.—Crochet pillow case. 252

683 Vidal, J. M., Constantinople.—Oriental embroidery. 252

684 Vassiliki, Madame, Constantinople.—Laces. 252

685 Trotomastoropolani, Catrini, Canea, Crete.—Crochet counterpane. 252

686 Tophna, Koniah.—Crochet lace and pillow case. 252

687 Tchiko, Yanina.—Lace. 252

688 Sali Djestine, Mecca.—Trimmings for clothing. 252

689 Stacoupola, Madame Hèleni, Canea, Crete.—Divan cover. 252

690 Rokopolani, Hèleni, Canea, Crete.—Crochet table cloth. 252

691 Rechid Effendi, Damascus.—Crochet coverlet, etc. 252

692 Pérachipolani, Krissi, Canea, Crete.—Crochet sofa cover. 252

693 Papazoupola, Annetta, Canea, Crete.—Table cloth. 252

694 Osman Effendi, Salonica.—Lace trimmings, silver lace, thread, etc. 252

695 Penssimo, Redjani, Yanina.—Laces. 253

696 Osman, Effendi, Brousse.—Embroidered handkerchief. 252

697 Nefissé, Madame, Ichkodra, Monastir.—Embroidered napkins. 252

698 Nikogos, Koniah.—Crochet cuffs. 252

699 Nicolaide, Azulfi, Mdlle., Canea, Crete.—Lace. 252

700 Moustapha Bey, Bartia, Castamouni.
- *a* Embroidered napkins. 252
- *b* Belt. 254

701 Mombjian, Kirkor, Constantinople.—Embroideries, embroidered table cover. 252

702 Manoli Toraki, Catherine, Canea, Crete.—Crochet pillow case. 252

703 Mikail, Dardanelles.—Silk lace. 252

704 Legueurdji, Miss, Dardanelles.—Silk lace. 252

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

705 Kamile, Madame, Tripoli, Syria.—Embroidered napkin, etc. 252

706 Koliopoula, Maria, Canea, Crete.—Embroidery, embroidered handkerchiefs, cuffs. 252

707 Ismyrnopola, Hêleni, Canea, Crete.—Crochet table cloth. 252

708 Isphakanopola, Aspasia, Canea, Crete.—Crochet table cloth. 252

709 Iskilidjan, Canea, Crete.—Crochet work, napkins, etc. 252

710 Isaac Agha, Brousse.—Stand-cover. 252

712 Dervich Effendi, Hadji, Canea, Crete.—Embroidered handkerchiefs and belts. 252

713 Hêleni, Madame, Constantinople.—Laces. 252

714 Heminé, Madame, Koniah.—Crochet cap. 252

715 Beyroot, Government of, Syria.
a Trimmings, gold lace, cords. 252
b Tobacco pouch. 254

716 Grandaki Ahmed Effendi, Canea, Crete.—Embroidered handkerchiefs, belts, etc. 252

717 Grandaki Ahmed Effendi, Madame, Canea, Crete.—Gold embroidered napkins. 252

718 Fatma Eminé, Koniah.—Embroidered napkins. 252

719 Ellissi, Madame, Constantinople.
a Laces. 252
b Tobacco pouch. 254

720 Feriyé, Madame, Koniah.—Crochet lace. 252

721 Dervich Oglou Kokas, Brousse.—Embroidered neckties, handkerchiefs, and skirt. 252

722 Catherine, Constantinople.—Silk embroidered fabric. 252

723 Boyachipolani, Marigo, Canea, Crete.—Crochet lounge cover. 252

724 Abdi Azadé Ali Bey, Canea, Crete.—Embroidery, silk and silver lace, embroidered handkerchiefs and belt, etc. 252

725 Aghop, Miss, Dardanelles.—Silk lace. 252

726 Aiacha, Madame, Koniah.—Embroidered handkerchief. 252

727 Avanza, Torki, Miss, Canea, Crete.—Crochet chair cover. 254

728 Assibi, Madame, Koniah.—Embroidered belt. 252

729 Vester, Jerusalem, Syria.
a Olive wood cuff buttons. 253
b Olive wood ladies' companions, caskets, purses, needle cases, tobacco pots and boxes, book and album covers; card cases, spectacle cases, cane and cane heads; match boxes, cigar case and holders, chalices, crosses, glove boxes, postage stamp boxes, pipes, beads, snuff boxes, toys, etc. 252

730 Toup Hané c Hadji, Trebizond.
a Watch chain. 253
b Ornaments, etc. 254

731 Sako, Aintab.—Gilt silver bracelets. 253

732 Sassi Nahil, Tripoli, Tripoli.—Silver bracelets. 253

733 Rapate, Mikail, Aleppo.
a Necklace, earrings, and pin. 253

734 Omer Agha, Canea, Crete.—Silver and gilt chains. 253

735 Manouk, Aleppo.—Gilt silver purse chain. 253

736 Mikail, Aleppo.—Gilt silver earrings. 253

737 Mikail, Aintab.
a Ring. 253
c Silver cigarette pincers. 254

738 Mesrouhout, Tripoli, Tripoli.—Gold bracelets. 253

739 Lalotte Ahmed, Siros, Salonica.—Amethysts. 253

740 Kirio, Aleppo.—Silver vest buttons. 253

741 Golaksiz Oglou Nicolas, Trebizond.
a Earrings, brooches, sleeve buttons, locket, etc. 253
b Silver snuff box, pin, cigarette holders, bouquet holder, etc. 254

742 Raphaêlion, Gabriel, Constantinople.
a Amber brooches, earrings, crosses, etc. 253
b Pipe stems and bowls, cigarette holders, and canes. 254

743 Suleimaneeyah, Government of, Bagdad.—Rock crystal seal and beads. 253

744 Babani Azeré, Tripoli, Tripoli.—Gold ear-rings. 253

745 Cherkis Berké, Jerusalem.—Mother-of-pearl lockets. 253

746 Andonaki, Kenprenz, Dardanelles.—Amethyst. 253

747 Meskout Serros, Tripoli, Tripoli.—Silver earrings. 253

748 Abil, Aleppo.
a Silver and silver gilt jewelry. 253
b Silver thimble, pincers, and paint flasks. 254

749 Zenoup, Marie, Constantinople.—Embroidered necktie. 254

750 Yanaki, Widin, Danube.—Tobacco box. 254

751 Thomas, Diarbekir.—Head-dress ornament, ladies' belt. 254

752 Tanach, Thomas, Yanina, Yanina.—Silver filigree belt, snuff box, cigarette box, looking glass, cigarette holders, etc. 254

753 Selim Zeutekli, Damascus.—Narghilé stems. 254

754 Sedj Agha, Madame, Koniah.—Purse. 254

755 Selim Arikili, Damascus.—Accessories of the narghilé. 254

756 Sehi Tassane, Djidé, Hidjaz.—Cigarette cases. 254

757 Selim Zia Effendi, Candia, Crete.—Canes. 254

758 Sali Kamber, Piseren, Monastir.—Garter ornamented with gold. 254

759 Sako, Aleppo.—Silver filigree cigarette holder. 254

760 Suleiman, Djidé, Hidjaz.—Mother-of-pearl ash receivers. 254

761 Suleiman Agha, Yania, Bosnia.—Pipe bowl. 254

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

762 Amassia, Government of, Sivas.—Night cap and tobacco pouch. 254

763 Panoucha, Yanina.—Morocco belt. 254

764 Emarè, Government of, Bagdad.—Silver saucer. 254

765 Djidè, Government of, Hidjaz.—Fan. 254

766 Oustour, Aleppo.—Canes. 254

767 Oannès, Sivas, Sivas.—Ladies' companion. 254

768 Mehamed Tourmae, Ousta, Tripoli, Tripoli.—Suspender belt. 254

769 Chaban Assiani, Ousta, Tripoli, Tripoli.—Suspender belt. 254

770 Ferrad, Keuprulu, Ousta, Salonica.—Cigarette cases. 254

771 Nazar Kezork, Aleppo.—Silver filigree goblet, comb case, silver comb, etc. 254

772 Namik Effendi, Yanina.—Silk purse. 254

773 Nicoforaki, Théophani, Oulia, Crete.—Linen belt. 254

774 Nazar Kezork, Aintab.—Silver filigree cigarette holders; silver belt buckle. 254

775 Nazar Kerkor, Aintab.—Silver needle case. 254

776 Moustapha Agha, Constantinople.—Ivory needle case, box, wooden spindle, pipe, etc. 254

777 Moustapha Oglou, Salonica.—Purses. 254

778 Moustapha Ousta, Broussa, Broussa.—Cane. 254

779 Moustapha, Tripoli, Tripoli.—Cigarette holders. 254

780 Mehemed Ali, Kerat, Damascus.—Accessories of the narghilé. 254

781 Mehemed Dervich, Roostchook, Danube.—Fan. 254

782 Manol Veledidinko, Karchova, Monastir.—Silver cigarette basket. 254

783 Marie, Madame, Constantinople.—Purses, tobacco pouch, and cushion. 254

784 Mikail Antaki, Aleppo.—Silver filigree box, and saucer. 254

785 Kesban, Madame, Koniah.—Watch holder. 254

786 Kouyoumdjou Epsso, Piseren, Monastir.—Silver filigree box and belt. 254

787 Kessiar, Sivas, Sivas.—Silver pipe, snuff box, cigarette holders, and pipe stems. 254

788 Ibrahima, Cyprus.—Embroidered handkerchief. 254

789 Ibrahim Ousta, Terssus, Adana.—Canes. 254

790 Ismail Ibrahim, Ak-Hissar, Bosnia.—Pipe. 254

791 Ismail, Tripoli, Tripoli.—Rhinoceros-horn cup and saucers. 254

792 Ismail Ousta, Koniah, Koniah.—Earthen pipe bowls. 254

793 Ismaila, Sivas, Sivas.—Pipe stem. 254

794 Koudour, Hadji, Aleppo.—Pipes, pipe bowls, cigarette holders, etc. 254

795 Hussein, Hadji, Mardin, Diarbekir.—Pipe heads. 254

796 Hadjidli Ousta, Bollo, Castamouni.—Silver tobacco box and cigarette cases. 254

797 Hassan Usine, Retimo, Crete.—Canes, narghilé pipe, cigarette holder, and tobacco vase. 254

798 Hussein Ousta, Dardanelles.—Cigarette holders, ash receivers, tobacco pots, and toys. 254

799 Hussein Ousta, Sivas, Sivas.—Cigarette holders and pipe stems. 254

800 Hussein Agha, Zakra, Tripoli.—Cane, cigarette box. 254

801 Feti, Mosul, Bagdad.—Pipe stems. 254

802 Kasseudje, Giorgi, Aleppo.—Pipe. 254

803 Kerbella, Government of, Bagdad.—Palm-leaf fans and fly-brush. 254

804 Uskup, Government of, Bagdad.—Cigarette holder, snuff box, knife haft, and bellows. 254

805 Vissoka, Government of, Bosnia.—Cigarette cases. 254

806 Dervich Osman, Herede, Castamouni.—Cigarette cases. 254

807 Emina, Madame, Ichkodra, Monastir.—Handkerchief. 254

808 Dervich Yaya, Uskup, Monastir.—Pipe bowls. 254

809 Djèza Hirli Moustapha, Tripoli, Tripoli.—Ivory fan, fly-brush. 254

810 Dervichian, School for Young Ladies, Smyrna.—Divan cushions, chatelet, slippers, lace collar, needle case, etc. 254

811 Cazas Said, Tripoli, Syria.—Garters. 254

812 Catherine, Redjani, Redjani, Yanina.—Collars and cuffs. 254

813 Bekir Agha, Ourpha.—Narghilé heads. 254

814 Babi, Saret, Diarbekir.—Ebony wood canes. 254

815 Beram, Agha, Trebizond.—Cane. 254

816 Abil, Aintab.—Silver needle case, cigarette holder, belt buckles, finger cover, gilt silver relic shrine. 254

817 Suriani, Anton, Aleppo.—Silver filigree cigarette holder. 254

818 Ahmed Hassan, Adila, Yieman.—Mother-of-pearl ash receivers. 254

818*a* Ahmed Chibre, Houdehida, Yieman.—Rhinoceros-horn and wooden cups and saucers; canes, cigarette box and holders, ash receivers. 254

819 Ahmed Moussa, Rhodes.—Wooden pipes. 254

820 Ali, Aintab.—Ash receivers. 254

821 Ali Agha, Roostchook, Danube.—Pipe heads, tobacco pot, and cigarette holder. 254

822 Ali Agha, Widin, Danube.—Ash receivers. 254

823 Ali, Houdehida, Yieman.—Bamboo cup and cigarette box. 254

824 Ahmed Ousta, Trebizond.
a Pipe inlaid with silver. 254
b Cartridge box, case, and bag. 255

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Fancy Articles, Stationery, Weapons, Medicines.

825 Ardavissa, Madame, Constantinople.—Thread baskets. 254

826 Avadiz, Miss, Dardanelles.—Tobacco pouch, silk purse. 254

828 Mounidjian Kirkor, Constantinople.—Traveling bag. 255

829 Moustapha, Mosul, Bagdad.—Morocco pistol cases. 255

830 Moustapha Ani, Koniah.—Couriers' bags. 255

831 Ibrahim, Hadji, Tripoli, Tripoli.—Morocco pistol holders. 255

832 Hachmet, Trebizond.—Cartridge box. 255

833 Abdoullah Chili, Tripoli, Tripoli.—Morocco cushion cover. 255

834 Ahmed Cherif, Damascus.—Morocco cartridge box and case. 255

835 Ali Oglou Velz, Larik, Koniah.—Courier's bag. 255

836 Aghop, Erzeroum.—Fox furs. 256

Paper, Blank Books, Stationery.

837 Dervich, Oglou Nacif, Hadji, Candia, Crete.—Writing materials and inkstands. 258

838 Koniah, Government of.—Turkish inkstands. 258

839 Chirignan, Constantinople.—Turkish inkstands. 258

840 Dimitri, Yanina, Yanina.—Turkish inkstand. 258

841 Birch Kirkor, Aintab.—Inkstand. 258

842 Bekir Agha, Ourpha, Aleppo.—Inkstands. 258

843 Ahmed Chibre, Houdehida, Yieman.—Turkish inkstand. 258

844 Ali Agha, Roostchook, Danube.—Turkish inkstands. 258

845 Karabet, Constantinople.—Turkish inkstands. 258

846 Zaferembolo, Government of, Castamouni.—Marble inkstand. 258

847 Vester, Jerusalem, Syria.—Olive wood desks, inkstands, penholders, paper weights, calenders, rules, seals, paper-knives, paper boxes, etc. 258

848 Ferrad, Ousta, Keuprulu, Salonica.—Office utensils. 258

849 Nicoforaki, Thèophani, Canea, Crete—Green parchment. 259

850 Ludovic & Vallauri, Constantinople.—Liquor labels. 261

Weapons, etc.

851 Christo, Polita, Trebizond.—Pistol and case. 265

852 Vidal, J. M., Constantinople.—Old firearms. 265

853 Constantinople, Government of.
a Schneider rifles, knapsack and cartridge box. 265
b Sabres. 268

854 Ahmed Agha, Poya, Trebizond.—Yataghan. 268

855 Ahido, Adrianople.—Yataghan. 268

856 Ali Osman, Broussa, Broussa.—Knives. 268

857 Raphaèlion, Gabriel, Constantinople.—Tomahawk. 268

858 Mehemed, Mosul, Bagdad.—Cartridge boxes, pistol cases, military belt, saddle bags. 269

Medicine, Surgery, Prothesis.

859 Spalhareon, Government of, Samos.—Amianthus. 272

860 Abdourhman, Aleppo.—Sumac berries. 272

861 Anguel, Ichkodra, Monastir.—Leaves of the adragante plant. 272

862 Boghend Luzzena, Constantinople.—Benzine. 272

863 Fakari, Aleppo.—Nigella. 272

864 Smyrne, Government of, Aydin.—Jalap. 272

865 Tootchana, Government of, Monastir.—Opium. 272

866 Saroukhan, Government of, Aydin.—Opium, and tinpigonde. 272

867 Medina, Government of, Hidjaz.—Zathère and chinan plants, used as medicines. 272

868 Mosul, Government of, Bagdad.—Mint, dried roses, etc. 272

869 Kara-Tach, Government of.—Poutargue. 272

870 Kerbella, Government of, Bagdad.—Opium. 272

871 Kara Issalè, Government of, Adana.—Asphodele plant. 272

872 Koyondja, Government of, Bosnia.—Orpiment, a narcotic. 272

873 Catara, Government of, Yanina.—Salep. 272

874 Damascus, Government of, Syria.—Poppy heads, carthamum seeds and blossoms. 272

875 Canea, Government of, Crete.—Laudanum. 272

876 Broussa, Government of.—Opium. 272

877 Hazrou, Aleppo.—Bastard saffron. 272

878 Hab Usu, Sullè, Koniah.—Chaleb aléanus. 272

879 Moustapha, Hadji, Marach, Aleppo.—Opium. 272

880 Hussein Effendi, Koniah, Koniah.—Opium. 272

881 Illias Manou, Aleppo.—Poppy heads. 272

882 Koular Oglou Mehemed, Lapseki Dardanelles.—Poutargue. 272

883 Nicolas, Prèvèzè, Yanina.—Poutargue. 272

884 Starri, Oglou, Castamouni, Castamouni.—Salep. 272

885 Sali, Ichkodra, Monastir.—Poutargue. 272

886 Tadjichè, Malatia, Diarbekir.—Opium. 272

887 Tarrout & Co., Volonia, Yanina.—Poutargue. 272

888 Tayk Pasha, Constantinople.—Opium. 272

889 Mourad Oglou Ali, Ayvadjik, Dardanelles.—Scammony. 272

890 Yussuf Mocha, Salonica.—Poutargue. 272

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Hardware, Woodenware, Harness.

891 Mussa Soleiman, Tdomane, Yanina.—Pernécone. 272

892 Zuccala, Carlo, Constantinople.—Pharmaceutical preparations. 272

893 Abazar Ketour, Saret, Diarbekir.—Ebony wood crutches. 276

Hardware, Edge Tools, Cutlery, and Metallic Products.

894 Bagdad, Government of.—Hatchet, iron tomahawks. 280

895 Palonka, Government of, Monastir.—Iron nippers, etc. 280

897 Isaac Agha, Hadji, Constantinople.—Saws. 280

898 Hussein, Constantinople.—Planes and ruler. 280

899 Chaouch, Ibrahim, Constantinople.—Joiners' chisels. 280

900 Ibrahim, Ousta, Constantinople.—Gimlets. 280

901 Suleiman, Constantinople.—Files. 280

902 Ludovic & Vallauri, Constantinople.—Copper pincers. 280

903 Suriani, Anton, Aleppo.—Silver scissors. 281

903*a* Hartine, Sivas, Sivas.—Scissors. 281

904 Kodja Osman Agha, Bosnia.—Knife. 281

905 Laz Oglou Giorki, Castamouni, Castamouni.—Penknives. 281

906 Noury Eddin Ousta, Piseren, Monastir.—Scissors. 281

907 Samarina Yani, Yanina, Yanina.—Knife. 281

908 Soliman, Candia, Crete.—Pocket-knife, scissors, etc. 281

909 Tanasse, Yanina, Yanina.
a Goat and sheep bells. 283
b Door knocker. 284

910 Moustapha, Constantinople.—Copper cocks, etc. 284

911 Ahmed, Ousta, Trebizond.—Lock. 284

912 Kirkor, Aintab.—Pincers. 284

Fabrics of Vegetable, Animal, or Mineral Materials.

913 Ludovic & Vallauri, Constantinople.
a Brooms. 286
b Turkish ensign and wooden crescent. 288

914 Medina, Government of, Hidjaz.
a Fly brush. 286
b Wooden dish; palm-leaf basket. 289

915 Ali, Marach, Aleppo.—Sorghum straw brooms. 286

916 Yazacoula, Marach, Aleppo.—Broom. 286

917 Mehemed, Ousta, Koniah.—Ropes. 287

918 Andon, Mitchré, Yanina.—Wooden casks. 289

919 Alidjé, Madame, Koudehida, Yieman.—Baskets. 289

920 Tchobano, Dimitri, Yanina, Yanina.—Wooden mould. 289

921 Dimitri, Yanina, Yanina.—Wooden dish. 289

922 Bagdad, Government of.—Palm baskets. 289

923 Piseren, Government of, Monastir.—Wooden water pitcher. 289

924 Djira, Government of, Castamouni.—Wooden spoons. 289

925 Chaban, Hadji, Koniah, Koniah.—Wooden cups. 289

926 Youssouf, Hadji, Terssus, Adana.—Wooden water pots. 289

927 Murtaza, Hadji, Trebizond.—Wooden box. 289

928 Ibrahim, Terssus, Adana.—Wooden scraper. 289

929 Kiamil, Effendi, Koniah, Koniah.—Wooden spoons. 289

930 Marco, Bosnia.—Wooden spoons. 289

931 Mehemed bin Abdoulah, Bosnia.—Wooden spoons. 289

932 Menehoz, Priest of Mount Athos, Salonica.—Wooden spoons. 289

933 Mahmoud Kabali, Mecca, Hidjaz.—Wooden decanter, goblet, and dish. 289

934 Mollah, Youssouf, Cassendi, Adana.—Wooden mortar. 289

935 Moustapha, Nevrekop, Salonica.—Wooden casks, drinking cup, and coffee box. 289

936 Younusse, Uskup, Monastir.—Wooden spoons. 289

Carriages, Vehicles, and Accessories.

937 Abdourahman, Aman, Zoubeid, Yieman.—Whip. 296

938 Boch, Kirkor, Aintab.—Stirrups. 296

939 Cazas, Thomas, Diarbekir.—Silk breast-piece for horses. 296

940 Delimé, Suleimaneeyah, Bagdad.—Saddle cloth. 296

941 Dip Notutchu, Damascus.—Woolen bridle, pistol holders, cartridge box. 296

942 Bagdad, Government of.—Reins and stirrups. 296

943 Constantinople, Government of.—Cavalry saddle and harness. 296

944 Ibrahim, Oglou Ali, Koniah—Woolen knapsack. 296

945 Maktès, Heron, Ourpha, Aleppo.—Saddle cloth. 296

946 Mehemed, Larik, Koniah.—Saddle cloth. 296

946*a* Moustapha, Omer, Koniah.—Woolen halter. 296

947 Moustapha, Mosul, Bagdad.—Saddle cloths. 296

948 Osman Effendi, Broussa.—Girth. 296

949 Ousta Mehemed Tournous, Tripoli, Tripoli.—Saddle and harness. 296

950 Sarak, Salif, Damascus.—Pack saddles of tiger skin. 296

951 Sarradj, Moustapha, Marach, Aleppo.—Saddle girth and stirrups. 296

952 Tanasse, Yanina, Yanina.—Stirrups. 296

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Agriculture, Arboriculture, and Forest Products.

953 Noury Bey, Darendè, Sivas.—Sumac. 600

954 Kara-Hissar, Government of, Sivas.—Sumac leaves. 600

955 Dofat & Co., Pargua, Yanina.—Acorn cups. 600

956 Chakir Agha, Ayvadjik, Dardanelles.—Acorn cups. 600

957 Cadi Kazi Agha, Caraman.—Sumac berries. 600

958 Ali Agha, Kangre, Castamouni.—Sorbus (tree). 600

959 Avadjan, Savas, Savas.—Aloe wood. 600

960 Massoudjou, Diarbekir.
a Bark of the pomegranate tree. 600
b Gall-nuts, acorn cups, madder. 602
c Vegetable gum 603
d Juniper berries and asphodele seed. 605

961 Schit Mohammed, Sparthe, Koniah.—Gall-nuts. 602

962 Ali Oglou Mehemed, Koniah, Koniah.—Gall-nuts. 602

963 Ziadji Oglou Bolis, Diarbekir.
a Sumac leaves. 602
b Excrescence of an oak tree, etc. 604

964 Taraiche Metre, Monastir, Monastir.—Madder. 602

965 Pano Mamatti, Prévèzè, Yanina.—Gall-nuts. 602

966 Petro, Volonia, Yanina.—Gall-nuts. 602

967 Djourbachi, Nicolas, Imbros, Dardanelles.—Madder root. 602

968 Moustapha Effendi, Koniah, Koniah.—Madder. 602

969 Mosul, Government of, Bagdad.
a Madder root. 602
b Excrescence of an oak. 604
c Yellow seeds. 605

970 Illias Ténè, Aleppo.—Madder. 602

971 Ahmed, Hadji, Tripoli, Tripoli.—Saffron. 602

972 Moustapha, Hadji, Tripoli, Tripoli.—Galls for tanning. 602

973 Bougali, Hadji Ali, Tripoli, Tripoli.—Henna leaves. 602

974 Mehemet Agha, Hadji, Angora.—Acorn cups, gall-nuts, sumac leaves. 602

975 Charade, Hadji Ali, Tripoli, Tripoli.—Madder. 602

976 Moustapha, Hadji, Aleppo.
a Gall-nuts, madder. 602
b Pitch, vegetable gum. 603

977 Cherishor, Government of, Bagdad.—Henna gum and leaves. 602

978 Bigdé, Government of, Koniah.
a Madder root. 602
b Vegetable gum. 603
c Yellow seeds. 605

979 Adrianople, Government of.—Gall-nuts. 602

980 Damascus, Government of, Syria.
a Gall-nut, sumac, and madder root. 602
b Basson gum. 603

981 Erezena, Government of, Crete.—Pine tree bark. 602

982 Zaferampolo, Government of, Castamouni.—Saffron. 602

983 Mihalgazi, Government of, Castamouni.—Sumac leaves. 602

984 Kara-Issali, Government of, Adana.
a Sumac leaves. 602
b Mastic tree resin. 603

985 Isklip, Government of, Castamouni.
a Scammony. 602
b Yellow seeds. 605

986 Adana, Government of.
a Gall-nuts, etc. 602
b Adragante seed. 605

987 Suleimaneeyah, Government of, Bagdad.
a Galls, gall-nuts, etc. 602
b Vegetable gum. 603
c Yellow seeds. 605

988 Saroukhan, Government of, Aydin.—Gall-nuts. 602

989 Smyrna, Government of, Aydin.
a Pine tree bark. 602
b Pitch. 603
c Dolique seed. 605

990 Retimo, Government of, Crete.—Gall-nuts. 602

991 Abdourahman Effendi, Kangre, Castamouni.
a Gall-nuts. 602
b Yellow seed. 605

992 Artin Effendi, Adana, Adana.—Madder root. 602

993 Ali Effendi, Angora.
a Madder. 602
b Yellow and black pitch. 603

994 Oghan, Sivas, Sivas.—Black pitch and tar. 603

995 Suleiman, Ichkodra, Monastir.—Pitch. 602

996 Nicolaki, Jovan Oglou, Bairamich, Dardanelles.—Resin. 603

997 Maktis, Diarbekir.—Manna. 603

998 Mahmoud Katlani, Aleppo.—Pitch. 603

999 Moustapha, Ahmed Oglou, Bairamich, Dardanelles.—Pitch. 603

1000 Las Osman, Kangre, Castamouni.—Adragante gum. 603

1001 Kouyoun Oglou, Andoni, Angora.—Opium and adragante gum. 603

1002 Ismail, Cherishor, Bagdad.—Vegetable gum. 603

1003 Illias Manou, Aleppo.—Pine resin. 603

1004 Erzeroum, Government of.—Pitch. 603

1005 Sfakia, Government of, Crete.—Vegetable pitch, resin. 603

1006 Yldis-Ili, Government of, Sivas.—White pitch. 603

1007 Merssine, Government of, Adana.—Yellow pitch. 603

1008 Volonia, Government of, Yanina.—Pitch. 603

1009 Akhati, Giorki, Aleppo.—Apricot tree gum. 603

1010 Toutous, Government of, Sivas.—Vegetable gums. 603

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Arboriculture, Pomology, Agricultural Products.

1011 Samos, Government of.
a Resin. 603
b Carob bean. 605

1012 Central Drug-store, della Sudda's, Broussa.—Scammony resin. 603

1013 Yconomidès, Antonio, Canea, Crete.—Mastic. 603

1014 Ahmed, Agha, Alada, Koniah.—Resin. 603

1015 Ahmed, Agha, Koniah, Koniah.—Vegetable and purified pitch. 603

1016 Mehemed Galz Effendi, Damascus.—Marshmallow. 604

1018 Thèophani, Nicoforaki, Canea, Crete.—Sweet almonds; seeds. 605

1019 Stiraki, Marinaki, Canea, Crete.—Sweet almonds. 605

1020 Over, Agha, Malalio, Diarbekir.—Pistachio-nuts. 605

1021 Latzindaki, Nicoli, Canea, Crete.—Sweet almonds. 605

1022 Missa Yian, Diarbekir.—Yellow seeds. 605

1023 Moustapha, Bandjak, Adana.—Palma-christi seed. 605

1025 Mehemed Rechio, Diarbekir.—Batones, a species of pistachio-nuts. 605

1026 Mehemed Ousta, Koniah, Koniah.—Yellow seeds. 605

1027 Karabet, Kangre, Castamouni.—Yellow seeds. 605

1028 Latzindaki, Hadji Yorghi, Canea, Crete.—Sweet almonds. 605

1029 Ali Bekir, Hadji, Sarret, Diarbekir.—Batones, species of pistachio-nuts; hazel-nuts. 605

1030 Aleppo, Government of.—Yellow Avignon seed. 605

1031 Esiné, Government of, Dardanelles.—Gall-nuts. 605

1032 Fokat, Government of, Sivas.—Avignon seed. 605

1033 Houran, Government of, Syria.—Asphodele seed. 605

1034 Chagir, Agha, Canea, Crete.—Sweet almonds. 605

1035 Bolesse, Diarbekir.—Yellow seeds. 605

1036 Ali Ani, Sullé, Koniah.—Yellow seed. 605

1037 Ali Baba, Aleppo.—Pine seeds. 605

Pomology.

1038 Ali Bekir, Hadji, Sarret, Diarbekir.—Crab apples. 610

1039 Carnic Ali Agha, Kangre, Castamouni.—Corinth grapes. 610

1040 Feefik, Mamor, Diarbekir.—Cherries. 610

1041 Seid, Hadji, Koniah, Koniah.—Corinth grapes. 610

1042 Over Agha, Malatio, Diarbekir.—Grapes. 610

1043 Abdoullah, Aleppo.—Almonds. 611

1044 Abdourahman, Aleppo.—Hazel and pistachio nuts. 611

1045 Austagan, Adrianople.—Gombo fruit. 611

1046 Djemal Ali, Sarret, Diarbekir.—Dried figs. 611

1046*a* Yanacoli, Canea, Crete.—Sweet almonds. 611

1047 Amassia, Government of, Sivas.—Nuts. 611

1048 Retimo, Government of, Crete.—Salted olives. 611

1049 Cattari Giorki, Yanina, Yanina.—Olives. 611

1050 Tschataldja, Government of, Yanina.—Green olives. 611

1051 Ichel, Government of, Adana.—Olives. 611

1052 Medina, Government of, Hidjaz.—Dates. 611

1053 Samos, Government of.—Olives, almonds, and raisins. 611

1054 Prèvézè, Government of, Yanina.—Cedras, a sort of lemon. 611

1055 Churadè, Hadji Ali, Tripoli, Tripoli.—Raisins. 611

1056 Kemer Kirkor, Mamor, Diarbekir.—Dried almonds. 611

1057 Youssouf, Aleppo.—Jujube. 611

1058 Chaouch, Moustapha, Ayvadjik, Dardanelles.—Olives. 611

1059 Mehemed Effendi, Dardanelles, Dardanelles.—Almonds and nuts. 611

1060 Djudie, Mehemed, Tripoli, Tripoli.—Dates. 611

1061 Petro, Bèrat, Yanina.—Almonds and nuts. 611

1062 Seid Hussa, Mardin, Diarbekir.—Mahaleb. 611

1063 Salomon, Salonica.—Olives. 611

1064 Smyrna, Government of, Aydin.—Almonds, olives. 611

Agricultural Products.

1065 Topchin Mulasin, Koniah, Koniah.
a Oats. 620
b Flaxseed. 624

1066 Toran Costa, Philippopolis, Adrianople.
a Wheat, rye, maize, barley, rice, and millet. 620
b Vetch. 621

1067 Youssouf, Diarbekir.
a Cereals: wheat, barley, and millet. 620
b Gray peas. 621
c Kuchené seed. 624

1068 Abdi Agha, Prevèzé, Yanina.—Oats. 620

1069 Ab-del Kader Kourou Ateché, Adana.—Sesame. 620

1070 Abdourahman, Aleppo.
a White sorghum. 620
b Lentils, gray peas. 621
c Dolique seed. 624

1071 Ahmed, Tchataldja, Yanina.—Barley. 620

1072 Banouch Agha, Permidé, Yanina.—Wheat. 620

1073 Christo, Yanina, Yanina.
a Wheat, barley, rye, oats, maize, and millet. 620
b Lentils, green peas. 621
c Dolique seed. 624

1074 Christo, Volonia, Yanina.—Barley. 620

1075 Christo, Prévézé, Yanina.—Barley. 620

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Agricultural Products.

1076 Ahmed, Chaouch, Cus-Kuri, Dardanelles.—Oats. 620

1077 Dibra Gaza, Aleppo.
a Rice. 620
b Asphodele and liquorice root. 622

1078 Emin Agha, Constantinople.
a Wheat, maize, oats, sesame, millet, spelt, etc. 620
b Lentils, vetch, and grach. 621
c Flaxseed. 624

1079 Ferssouz, Adana, Adana.—Wheat. 620

1080 Fodolali, Nazif Agha, Candia, Crete.—Barley. 620

1081 Giorki, Antaki, Aleppo.—Sesame. 620

1082 Giorki, Volonia, Yanina.
a Rice. 620
b Kidney beans. 621

1083 Aydin, Government of.
a Wheat, barley. 620
b Liquorice root. 622

1084 Berat, Government of, Yanina.
a Maize. 620
b Tobacco. 623

1085 Cherishor, Government of, Bagdad.—Rice. 620

1086 Damascus, Government of, Syria.
a Wheat, maize, barley, white sorghum, etc. 620
b Vetch and gray peas. 621
c Anise and coriander seed. 623
d Beet root, fennel, and hemp seed. 624

1087 Diarbekir, Government of.—Wheat. 620

1088 Erzeroum, Government of.
a Wheat, rye, and barley. 620
b Flaxseed. 624

1089 Houran, Government of, Syria.—Sesame. 620

1090 Kara-Hissar, Government of, Sivas.
a Wheat and barley. 620
b Gray peas, kidney beans, lentils. 621

1091 Kerbella, Government of, Bagdad.
a Rice, millet, sesame, barley, wheat, white sorghum. 620
b Lentils, beans, masch (vegetable). 621
c Dolique seed. 624

1092 Medina, Government of, Hidjaz.—Wheat and barley. 620

1093 Mentefek, Government of, Bagdad.
a Wheat, millet, and rice. 620
b Beans, masch. 621
c Dolique seed. 624

1094 Mosul, Government of, Bagdad.
a Maize. 620
b Peas. 621
c Coriander. 623
d Flaxseed. 624

1095 Serfichè, Government of, Monastir.—Wheat, rye, barley, and maize. 620

1096 Smyrna, Government of, Aydin.
a Wheat, maize, evrier, millet, sesame, white sorghum. 620
b Peas and beans. 621
c Fennel, cumin. 624

1097 Suleimaneeyah, Government of, Bagdad.
a Barley, millet, and rice. 620
b Vetch and beans. 621

1098 Tahif, Government of, Hidjaz.—White and red sorghum, millet, wheat, and barley. 620

1099 Tootchana, Government of, Monastir.—Rice. 620

1100 Toutous, Government of, Sivas.
a Cereals. 620
b Chick-peas. 621
c Radish and flaxseed. 624

1101 Uskup, Government of, Monastir.
a Wheat and rye. 620
b Leaf tobacco. 623

1102 Volonia, Government of, Yanina.—Maize. 620

1103 Ali Agha, Hadji, Koniah, Koniah.—Wheat. 620

1104 Ali Agha, Hadji, Kangre, Castamouni.
a Millet. 620
b Cumin. 623

1105 Ali, Hadji, Koniah, Koniah.—Wheat. 620

1106 Ali Bou Allia, Hadji, Tripoli, Tripoli.
a Wheat, barley, maize. 620
b Lentils and beans. 621
c Coriander and cumin. 623

1107 Ali Bougali, Hadji, Tripoli, Tripoli.
a Millet. 620
b Sorghum seed. 624

1108 Bekir Effendi, Hadji, Adana, Adana.—Barley and millet. 620

1109 Esseid Effendi, Hadji, Koniah, Koniah.—Wheat. 620

1110 Ismail, Hadji, Koniah, Koniah.—Wheat. 620

1111 Ismaila, Hadji, Cus-Kuri, Dardanelles.—Barley. 620

1112 Moustapha Agha, Hadji, Adana, Adana.—Gray peas. 621

1113 Sali, Hadji, Anabon, Monastir.—Wheat and maize. 620

1114 Weisser, Hadji, Dardanelles, Dardanelles.—Evrier, a cereal. 620

1115 Hassan Agha, Koniah, Koniah.—Wheat. 620

1116 Hussein, Aleppo.—Maize. 620

1117 Ismail Agha, Abdi Tolli, Koniah.
a Black barley. 620
b Radish seed. 624

1118 Ismail, Tchataldja, Yanina.—Wheat. 620

1119 Ismail Effendi, Candia, Crete.—Barley. 620

1120 Kavilian, Stèpan, Sivas.—Wheat. 620

1121 Kutchuk Ali Agha, Dardanelles, Dardanelles.—Wheat. 620

1122 Manoli, Boyadjaki, Candia, Crete.—Barley. 620

1123 Mehemed Effendi, Dardanelles, Dardanelles.—Indian corn, sesame. 620

1124 Mehemeda, Cus-Kuri, Dardanelles.—Rye. 620

1125 Merdik, Mardin, Diarbekir.—Sesame. 620

1126 Moussin Oglou Seid, Koniah, Koniah.
a Barley. 620
b Gray peas. 621

1127 Mourazedè, Aleppo.—Unhulled rice. 620

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Agricultural Products.

1128 Moussa Oglou Veli, Alada, Koniah.—Rye. 620

1129 Moussin Effendi, Koniah, Koniah.—Evrier, a cereal. 620

1130 Moustapha Effendi, Cherkech, Castamouni.—Wheat and barley. 620

1131 Moustapha, Agha, Canea, Crete.—Barley. 620

1132 Nougai Baitimour, Adana, Adana.—Millet. 620

1133 Ohannes, Aleppo.—Wheat and barley. 620

1134 Olah Artin, Adana, Adana.—Oats. 620

1135 Oudjou Christo, Yanina, Yanina.—White sorghum. 620

1136 Pachistizzi, Volonia, Yanina.—Maize. 620

1137 Petro, Bèrat, Yanina.—Rice and oats. 620

1138 Portocalaki, Moustapha Agha, Candia, Crete.—Wheat. 620

1139 Salbé, Diarbekir.—Rice, hulled and unhulled. 620

1140 Salih, Ichkodra, Monastir.
a Barley, rye, oats, wheat, and maize. 620
b Beans. 621
c Flaxseed. 624

1141 Salomon, Salonica.—Wheat, rye, oats, barley. 620

1142 Seid Chaban, Zubei, Yiemen.
a Maize, millet, and red, white, and yellow sorghum. 620
b Lentils. 621
c Dolique and indigo-plant seeds. 624

1143 Seid Mehemed Agha, Angora.
a Wheat, barley, etc. 620
b Beans, peas, lentils. 621
c Coriander. 623

1144 Théophani, Nicoforaki, Canea, Crete.
a Wheat, barley, Indian corn, oats. 620
b Gray peas, vetch, beans, parsnip, celery, mühlie. 621
c Leaf tobacco, mustard. 623

1145 Houllé, Government of, Bagdad.—Lentils, vetch, and beans. 621

1146 Kara Issalé, Government of, Adana.
a Vetch. 621
b Sage. 623

1147 Samos, Government of.
a Vetch. 621
b Anise seed. 624

1148 Saroukhan, Government of. Aydin.
a Lentils. 621
b Madder root. 622
c Mustard seed. 624

1149 Mehemed, Hadji, Diarbekir.—Roast peas. 621

1150 Isaac, Hodja, Aleppo.—Lentils, peas, and masch. 621

1151 Ismail Agha, Koniah, Koniah.—Vetch. 621

1152 Mehemed Ali Agha, Saradjik, Dardanelles.—Beans, gray peas. 621

1153 Ahmed, Erzeroum.—Lentils, kidney beans, and peas. 621

1154 Aghoba, Kingnessa, Adana.—Lentils. 621

1155 Ali Ousta, Koniah, Koniah.—Kidney beans. 621

1156 Charchou Akassi, Diarbekir.—Lentils. 621

1157 Christo, Palatnos, Yanina.—Beans. 621

1158 Kachomla, Christo, Tdomane, Yanina.—Kidney beans. 621

1159 Diaba, Heudeurlé, Adana.—Kidney beans. 621

1160 Giorki, Aleppo.
a Vetch. 621
b Kuchené seed. 624

1161 Mehemed Seid, Angora.
a Kidney beans. 621
b Cumin. 623

1162 Molah Ahmed, Adana, Adana.—Beans. 621

1163 Sidmaki, Sfakia, Crete.—Dried beans. 621

1164 Fetou, Aleppo.—Kidney beans. 621

1165 Yorghanodhaki, Sfakia, Crete.—Vetch. 621

1166 Valah, Vandiria, Sfakia, Crete.—Lentils. 621

1167 Youssouf Mamor, Diarbekir.—Kidney beans. 621

1168 Youssouf Manoc, Aleppo.—Beans. 621

1169 Akhati, Giorki, Aleppo.—Soapwort root. 622

1170 Moustapha, Hadji, Marach, Aleppo.—Scammony. 622

1171 Hazrou, Aleppo.—Coriander seed. 623

1172 Imperial Administration, Constantinople.—Tobacco. 623

1173 Kandi Bros., Erguiré, Yanina.—Snuff. 623

1174 Mehemed, Koniah, Koniah.—Cumin. 623

1175 Nassou Tarrouchan, Ichkodra, Monastir.—Leaf tobacco. 623

1176 Omer Oglou Kassan, Tchan, Dardanelles.—Leaf tobacco. 623

1177 Rahimin David, Tripoli, Tripoli.—Cumin. 623

1178 Ramazan, Effendi, Smyrna, Aydin.—Tobacco. 623

1179 Abil, Aleppo.—Snuff. 623

1180 Djourbachi, Antolu, Dardanelles, Dardanelles.—Cumin and anise. 623

1181 Bedros, Antoine, Philadelphia, Pa.—Turkish tobacco. 623

1182 Bekir Bey, Marach, Aleppo.—Scammony root. 623

1183 Costanti, Aydonat, Yanina.—Snuff. 623

1184 Aleppo, Government of.—Tobacco. 623

1185 Amassia, Government of, Sivas.—Tobacco. 623

1186 Kenidje, Government of, Salonica.—Tobacco. 623

1187 Haskanorich Ali, Korimdja, Bosnia.—Tobacco. 623

1188 Manoli Calergui, Papa, Canea, Crete.—Leaf tobacco. 623

1189 Takssim Effendi, Tchataldja, Yanina.—Tobacco. 623

1190 Tokatlou, Trebizond.—Leaf tobacco. 623

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Agricultural, Animal, and Vegetable Products.

1191 Yani, Oglou Andin, Angora, Angora.—Tobacco. 623

1192 Youssouf, Chaouch, Nardat, Yanina.—Tobacco. 623

1193 Youssouf, Chaouch, Tchataldja, Yanina.—Tobacco. 623

1194 Manouk, Youssouf, Aleppo.—Tobacco. 623

1195 Kayod, Hussein, Mardin, Diarbekir.—Fennel seed. 624

1196 Moustapha Effendi, Koniah, Koniah.—Hemp seed. 624

1197 Kouyoun Oglou, Andonie.—Seed. 624

1198 Yousouf, Hadji, Diarbekir.—Palma-christi seeds. 624

1199 Kazikli, Government of, Aydin.—Anise seed. 624

1200 Cus-Kuri, Government of, Dardanelles.—Dolique seed. 624

1201 Djbra Gaza, Aleppo.—Fennel seed and cumin. 624

1202 Ali Bin Mehemed, Tripoli, Tripoli.—Lucern seed. 624

1203 Youssouf, Aleppo.—Hemp, palma-christi, mekineche, melon, and watermelon seeds. 624

1204 Tarai, Djemetrè, Bokeva, Monastir.—Flax and hemp seed. 624

1205 Maneza, Government of, Aydin.—Flaxseed. 624

1206 Adana, Government of.—Dolique seed. 624

Land Animals.

1207 Mazloum Aghiah, Constantinople.—Insects. 638

Water Animals, Fish Culture and Apparatus.

1208 Ali Zotte, Volonia, Yanina.—Coral. 645

Animal and Vegetable Products.

1209 Lachite, Government of, Crete.—Sponges. 650

1210 Themeli, N., New York, N. Y.—Sponges. 650

1211 Mansour, Hadji, Tripoli, Tripoli.—Sponges. 650

1212 Djidè, Government of, Hidjaz.—Sponges. 650

1213 Gallinos, Rhodes, Dardanelles.—Sponges. 650

1214 Thèophani, Nicoforaki, Canea, Crete.
a Cheese. 651
b Leather and skins. 652
c Honey. 654
d Dried cherries. 656

1215 Minassian Miguerdji, Tokat, Sivas.—Cheese. 651

1216 Markora, Salonica.—Cheese. 651

1217 Mikahl Agha, Adrianople.—Lamb skins. 652

1218 Mikaèl, Kotchissar, Castamouni.—Beaver skin. 652

1219 Mehemeda, Dardanelles.—Morocco. 652

1220 Starri, Oglou, Kotchissar, Castamouni.—Marten skin. 652

1221 Nichan, Sivas, Sivas.—Skins. 652

1222 Nely, Ali, Marach, Aleppo.—Morocco. 652

1223 Moustapha, Ourpha, Aleppo.—Leather. 652

1224 Moustapha, Erzeroum.—Leather, morocco, etc. 652

1225 Mohadjeri Nahe, Adana, Adana.—Gazelle skin. 652

1226 Abdul Medjid, Vesalomon.—Goat skin. 652

1227 Abdoulah, Aroubirje, Zoubei, Bagdad.—Morocco. 652

1228 Seyfoullah, Roostchook, Danube.—Leather. 652

1229 Sari Faki Moustapha, Marach, Aleppo.—Morocco. 652

1230 Safran Bolu, Zaferemboli, Castamouni.—Morocco. 652

1231 Panoucha, Yanina.—Leather. 652

1232 Osman Agha, Koniah.—Leather. 652

1233 Mehemed, Ousta, Boschir, Koniah.—Leather. 652

1234 Omer, Ousta, Piseren, Monastir.—Morocco. 652

1235 Ohannès Agha, Angora.—Angora goat skins. 652

1236 Ahmed Agha, Koniah.—Leather and morocco. 652

1237 Yanaki Kalviro, Yanina.—Goat skin. 652

1238 Youssouf, Caraman, Koniah.—Morocco. 652

1239 Vasali Borbo, Yanina.—Morocco. 652

1240 Tosty, Galota, Chio, Dardanelles.—Leather. 652

1241 Chinopli, Thomas, Teralu, Yanina.—Sheep skin. 652

1242 Sirkilè, Olan Andin, Angora.—Weasel skin. 652

1243 Sirch, Oglou, Andon, Angora.—Wolf, weasel, and fox skin. 652

1244 Atanach, Dardanelles, Dardanelles.—Sheep skin. 652

1245 Andria, Trebizond.—Grebe skins. 652

1246 Andon, Chio, Dardanelles.—Morocco. 652

1247 Anastach, Kangre, Castamouni.—Goat skin. 652

1248 Ali, Omer, Bigha, Dardanelles.—Deer skin. 652

1249 Ali, Salonica.—Leather. 652

1250 Ali, Mosul, Bagdad.—Beaver, fox, and wolf skin. 652

1251 Ahmed, Ousta, Castamouni, Castamouni.—Angora goat skin. 652

1252 Zelo, Christo, Yanina.—Red morocco. 652

1253 Cherbedji Mehemed, Marach, Aleppo.—Goat and sheep skin. 652

1254 Moussa Agha, Cheik, Diarbekir.—Goat and sheep skin. 652

1255 Chaban Oglou Mehemed, Koniah, Koniah.—Cat skin. 652

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Animal and Vegetable Products.

1256 Cassal, Adana, Adana.—Goat and sheep skin. 652

1257 Cafak, Abdoullah, Marach, Aleppo.—Morocco. 652

1258 Bekir Agha, Sivas, Sivas.—Leather, morocco, and skins. 652

1259 Balto Oglou Youssouf, Guengnek, Castamouni.—Morocco. 652

1260 Glano, Giorki, Yanina.—Skin. 652

1261 Eyoup, Ourpha, Aleppo.—Goat and sheep skin. 652

1262 Echef Effendi, Trebizond.—Morocco. 652

1263 Ebouker, Chèrif, Tripoli, Tripoli.—Sheep skin. 652

1264 Dchoban Oglou Mehemed, Koniah.—Fox skin. 652

1265 Corporation of Curriers, Smyrna.—Leathers, skins, and morocco. 652

1266 Dauli, Christo, Yanina.—Morocco. 652

1266*a* Corporation of Curriers, Damascus.—Leather and morocco. 652

1267 Calman, Government of, Syria.—Goat skin. 652

1268 Cherishor, Government of, Bagdad.—Lamb skin. 652

1269 Bourd, Government of, Bagdad.—Morocco. 652

1270 Ohanès Agha, Marach, Aleppo.—Ounce and weasel skins. 652

1271 Bagdad, Government of.—Buffalo skin and morocco. 652

1272 Moustapha, Hadji, Marach, Aleppo.—Skins. 652

1273 Adana, Government of.—Roebuck and calf skins. 652

1274 Godché, Erondi, Prévézé, Yanina.—Leather, morocco. 652

1275 Gulbin, Oglou Mehemed, Koniah, Koniah.—Jackal skin. 652

1276 Tahif, Government of, Hidjaz.
a Sheep and goat skin. 652
b Honey. 654

1277 Kara Issali, Government of, Adana.—Deer skin. 625

1278 Feulgehete, Government of, Syria.—Deer skin. 652

1279 Erzeroum, Government of.
a Goat skin, morocco. 652
b Down. 653

1280 Diarbekir, Government of.—Leather and morocco. 652

1281 Dardanelles, Government of.—Goat skin. 652

1282 Damascus, Government of, Syria.
a Sheep skin. 652
b Honey and wax. 654

1283 Constantinople, Government of.—Morocco and other leathers. 652

1284 Manik, Hadji, Erzeroum.—Fox skin. 652

1285 Ismail Effendi, Hadji, Koniah, Koniah.—Otter skin, etc. 652

1286 Ismail, Hadji, Aintab.—Calf skin, leather, and morocco. 652

1287 Ibrahim, Hadji, Angora.—Leather and morocco. 652

1288 Damiano, Hadji, Bosnia.—Bear, fox, weasel, badger, and marten skins. 652

1289 Amparson, Hadji, Trebizond.—Jackal, fox, weasel, lamb, and sable skins. 652

1290 Ahmed, Hadji, Angora.—Goat and sheep skin. 652

1291 Achmet Agha, Hadji, Angora.—Lamb skin. 652

1292 Rafoul, Hodja, Marach, Aleppo.—Wildcat, fox, otter, and jackal skins. 652

1293 Hassan Oglou Ahmed, Dardanelles, Dardanelles.—Wildcat, fox, beaver, weasel, and jackal skins. 652

1294 Hassan, Ousta, Castamouni.—Morocco. 652

1295 Harani Oglou, Castamouni, Castamouni.—Ounce skin. 652

1296 Haho, Babanoun Hamed Agha, Koniah.—Morocco. 652

1297 Yassin, Hadji, Saret, Diarbekir.—Leather. 652

1298 Rouchen, Hadji, Trebizond.—Goat and calf skins. 652

1299 Omer Agha, Hadji, Diarbekir.—Morocco. 652

1300 Moustapha Ahmoud, Hadji, Tripoli, Tripoli.—Morocco, tanned skins, etc. 652

1301 Kurdju, Hadji, Diarbekir.—Beaver skin. 652

1302 Karabet Agha, Erzeroum.—Weasel and wolf skins. 652

1303 Kara, Poutamo, Prèvézé, Yanina.—Goat and sheep skin. 652

1304 Ismail, Agha, Boschir, Koniah.—Leather. 652

1305 Ismail, Hadji, Marach, Aleppo.—Leather. 652

1306 Isaac, Aleppo, Aleppo.—Lamb skin. 652

1307 Ipsilanki & Co., Samos, Castamouni.—Leather. 652

1308 Ibrahim, Uskup, Monastir.—Morocco. 652

1309 Hussein Effendi, Salonica.—Tanned hides and morocco. 652

1310 Mehemed Emin, Mosul, Bagdad.—Moroccos. 652

1311 Mehemed Effendi, Adrianople.—Leather, morocco, goat, and calf skins. 652

1312 Mehemed, Koniah, Koniah.—Wolf skin. 652

1313 Masloum Agha, Candia, Crete.—Goat skins and morocco. 652

1314 Salomon, Salonica.
a Goat and lamb skins. 652
b Virgin wax. 654
c Cherry, orange, apricot, prune, verjuice, and gourd marmalade. 656
d Brandy, wine, and vinegar. 660

1315 Maroquin, Dardanelles.—Morocco. 652

1316 Kurjut Casmat, Diarbekir.—Fox and weasel skins. 652

1317 Piseren, Government of, Monastir.—Morocco. 652

1318 Abdoullah Ousta, Angora.—Leather. 652

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Animal and Vegetable Products.

1319 Ana Bini, Tanasse, Sarret, Diarbekir.—Wax. 654

1320 Yeni Ahmed, Chür, Yanina.—Wax. 654

1321 Ahmed Agha, Lapseki, Dardanelles.—Yellow wax. 654

1322 Sahalim Bacbac, Tripoli, Tripoli.—Honey. 654

1323 Derbabian, Pedros, Sivas, Sivas.—Yellow wax 654

1324 Ohannès, Son of Varcha, Angora.—Honey. 654

1325 Moussin Effendi, Koniah, Koniah.—Yellow wax. 654

1326 Ahmed, Aintab, Aleppo.—Honey and wax. 654

1327 Samos, Government ot.
a Honey. 654
b Wine and brandy. 660

1328 Medina, Government of, Hidjaz.—Honey. 654

1329 Cherif Effendi, Trebizond.
a Honey. 654
b Gourd, pear, and rose marmalade. 656
c Mulberry vinegar. 660

1330 Arpadji Mahmoud Agha, Adana, Adana.—Wax. 654

1331 Lefterimo, Aposthol, Tirala, Yanina.—Honey. 654

1332 Andonaki, Angora.—Wax. 654

1333 Pisereken, Government of, Monastir.—Crude wax. 654

1334 Ali Zotte, Golos, Yanina.—Yellow wax. 654

1335 Mahmoud Agha, Adana, Adana.—Honey. 654

1336 Keranche Oglou, Kotchissar, Castamouni.—Wax. 654

1337 Hussein Dédé, Kilid-Bahar, Dardanelles.—Honey. 654

1338 Haktar Mehemed, Aleppo.—Yellow wax. 654

1339 Osman, Hadji, Sarret, Diarbekir.—Honey. 654

1340 Volonia, Government of, Yanina.—Honey and wax. 654

1341 Suleimaneeyah, Government of, Bagdad.—Wax. 654

1342 Smyrna, Government of, Aydin.
a Honey and wax. 654
b Dried grapes, raisins. 656
c Wine. 660

1343 Abdourahman, Erzeroum.—Yellow wax. 654

1344 Abdourahman, Zubei, Yiemen.—Wax. 654

1345 Catari, Giorki, Golos, Yanina.—Olives. 656

1346 Ali Oglou Moussa.—Dried morellas. 656

1347 Ahmed Agha, Aleppo.—Raisins. 656

1348 Yussuf Sarret, Diarbekir.—Raisins. 656

1349 Tetoullah Effendi, Darende, Sivas.—Prunes. 656

1350 Serdar, Hassan Oglou Hussin, Canea, Crete.—White and black raisins. 656

1351 Seid, Mehemed Agha, Angora.—Dried apples, prunes, cherries, apricots. 656

1352 Pembedje, Oglou Moustapha, Mardin, Diarbekir.—Prunes. 656

1353 Koyoun, Andonik, Angora.
a Dried and salt beef, sausages. 656
b Brandy, wine, and vinegar. 660

1354 Kirkor, Avakir, Diarbekir.—Mulberry paste. 656

1355 Hussein, Gaat, Mardin, Diarbekir.—Prunes. 656

1356 Haskanorich, Ali, Korimdja, Bosnia.—Prunes. 656

1357 Osman, Hadji, Koniah, Koniah.—Raisins. 656

1358 Ali, Hadji, Aleppo.—Dried prunes, quinces, cherries, and apricots. 656

1359 Zaferampolo, Government of, Castamouni.—Dried prunes. 656

1360 Nitch, Government of, Danube.—Prunes. 656

1361 Nasli, Government of, Aydin.—Dried figs. 656

1362 Mikali, Nicolaidi, Canea, Crete.—Orange, apple, orange blossom, cherry, and pear marmalade. 656

1363 Mikail, Aleppo.
a Dried prunes, cherries, apricots, raisins, and apples. 656
b Mastic. 660

1364 Merkioss, Mamor, Diarbekir.—Dried mulberries. 656

1365 Mehemed Aichè, Tripoli, Tripoli.—Soup and vegetable paste, vermicelli. 656

1366 Mehemed, Malatia, Diarbekir.—Mulberry paste. 656

1367 Mazloum, Aghiah, Constantinople.—Trehala and trehalose pastes. 656

1368 Maki Yani, Chio, Dardanelles.—Mastic, orange, rose, and lemon-blossom comfitures. 656

1369 Mark, Samos, Samos.—Muscat raisins. 656

1370 Kournik Ali Agha, Kangre, Castamouni.—Dried apricots. 656

1371 Pedros, Mihalgazi, Castamouni.—Raisins. 656

1372 Over Agha, Malatia, Diarbekir.—Raisins. 656

1373 Osman Bin Mohamed, Korimdja, Bosnia.—Prunes. 656

1374 Omer Djerbali, Tripoli, Tripoli.—Vermicelli and soup paste. 656

1375 Moustapha, Malatio, Diarbekir.—Dried peaches. 656

1376 Ateuf Dédé, Broussa, Broussa.—Angelica-root marmalade 656

1378 Widin, Government of, Danube.
a Sausages and smoked beef tongues. 656
b Raspberry wine. 660

1379 Moustapha Agha, Adana, Adana.—Raisins. 656

1380 Ahmed, Erzeroum.—Dried prunes. 656

1381 Mehemed Djebali, Tripoli, Tripoli.—Semoulel flour. 657

1382 Koudour Hadji, Aleppo.—Grenade syrup. 659

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Vegetable Products, Wines, Textile Substances.

1383 Ohannes, Diarbekir.—Grape syrup. 659

1384 Central Drug Store, Constantinople.—Fruit syrups, etc. 659

1385 Ispiro, Salonica.—Orange, cherry, and grenade syrups. 659

1386 Raftopoulos, Nicolas.—Mint, sage, and almond liquors. 660

1387 Kirkor Effendi, Erzeroum.—Alcohol. 660

1388 Karabet, Diarbekir.—Orange, rose, juniper, and other brandies. 660

1389 Ychrapalaki, Hadji, Nicolas, Retimo, Crete.—Mulberry brandy. 660

1390 Gulbing Oglou Kakout, Koniah, Koniah.—Wine and brandy. 660

1391 Salomon, Gumuldjin, Salonica.—Wine. 660

1392 Retimo, Government of, Crete.—Wine and brandy. 660

1393 Monastir, Government of.—Wines. 660

1394 Gostcho Djivarè, Prèvèzè, Yanina.—Wine. 660

1395 Vafiadi Giorki, Salonica.—Wine. 660

1396 Distillery of Zahari, Piseren, Monastir.—Brandy. 660

1397 TountchaLitchè, Tirnova, Yanina.—Wine. 660

1398 Tomochordo, Piseren, Monastir.—Wine. 660

1399 Tletora, Theodore, Samos.—Muscat wine. 660

1400 Thèophasaki Ysiako, Canea, Crete.—White wine. 660

1401 Stamadi Marneraki, Lachite, Crete.—Red wines. 660

1402 Pereno Papa, Adana, Adana.—Brandy. 660

1403 Pefkiades, John, Samos.—Muscat wine. 660

1403*a* Yussep, Tokat, Sivas.—Rose mastic. 660

1404 Papaz Oglou, Salonica.—White wine. 660

1405 Nicoloreuzi Bros., Samos.—Muscat wine. 660

1406 Yanaki, Nicolas, Ile of Bousdja, Dardanelles.—Wine and vinegar. 660

1407 Manoli Muzè, Tirnova, Yanina.—Vinegar. 660

1408 Direction of the Vineyards Pacha Liman, Broussa.—Red and white wines, cognac. 660

1409 Leonisaki, Dimitri, Canea, Crete.—Brandy. 660

1410 Cafejedaki, John, Samos.—Alcohol and wines. 660

1411 Bodou Agha, Diarbekir.—Wine. 660

1412 Bano, Adana, Adana.—Wine. 660

1413 Bedrè, Anton, Aleppo.—Vinegar. 660

1414 Andin Chako, Narda, Yanina.—Mulberry brandy. 660

1415 Yussep, Tokat, Sivas.—Rose vinegar and brandy. 660

1416 Yani, Lachite, Crete.—Mulberry brandy. 660

1417 Yani, Pappa Antoanaki, Lachite, Crete.—Grape brandy. 660

1418 Mehanedji, Foly, Candia, Crete.—Rose brandy and wine. 660

1419 Manoli Prizi, Candia, Crete.—Wine and white braody. 660

1420 Ipsamarki Yani, Ile of Bousdja, Dardanelles.—Brandy. 660

1421 Mark, G. L., Samos.—Brandy and wine. 660

1422 Missir, Joseph, Samos.—Muscat wine. 660

1423 Tousseano, Diarbekir.
a Vinegar. 660
b Mint oil. 662

1424 Moustapha, Dardanelles.—Coffee biscuits. 661

1425 Ipsamarki Yani, Chio, Dardanelles.—Vine-branch oil. 662

1426 Ahmed, Antakia, Aleppo.—Almond and palma-christi oils. 662

1427 Cherif Oglou Mehemed, Philippopolis, Adrianople.—Wild thyme and mint oil. 662

1428 Hetoulat, Diarbekir.—Batom oil. 662

Textile Substances of Vegetable or Animal Origin.

1429 Hussein Agha, Adana, Adana.—Cotton. 665

1430 Bekir, Hadji, Adana, Adana.—Cotton, cotton bolls. 665

1431 Uskup, Government of, Monastir.
a Cotton. 665
b Spun hemp. 666
c Cocoons. 668

1432 Saroukhan, Government of, Aydin.—Cotton. 665

1433 Mosul, Government of, Bagdad.
a Cotton. 665
b Cocoons. 668

1434 Kerbella, Government of, Bagdad.
a Cotton. 665
b Indian hemp. 666
c Wool. 667

1435 Feulgehete, Government of, Syria.
a Cotton. 665
b Wool. 667

1436 Etlèp, Government of, Aleppo.—Cotton and cotton bolls. 665

1437 Thèophani, Nicoforaki, Canea, Crete.
a Cotton seed. 665
b Spun flax. 666
c Wool. 667
d Blue and yellow cocoons. 668

1438 Salomon, Salonica.
a Cotton. 665
b Tow. 666
c Wool. 667

1439 Pano Mamatti, Prèvèzè, Yanina.—Cotton. 665

1440 Moussa, Palatnos, Yanina.—Cotton bolls. 665

1441 Mardili, Oustidi, Diarbekir.—Crude cotton. 665

1442 Laz Osman, Kangre, Castamouni.—Cotton. 665

1442*a* Kozon, Andonaki, Angora.—Cotton. 665

For classes of exhibits, indicated by numbers at end of entries, see Classification pp. 27-45.

Textile Substances of Animal and Vegetable Origin.

1443 Ismail Effendi, Sullè, Koniah.—Cotton. 665

1444 Ibrahim Effendi, Gueugnek, Castamouni.—Cotton. 665

1445 Amassia, Government of, Sivas.
a Cotton. 665
b Indian hemp. 666

1446 Dimitri, Giorgaki, Prévésé, Yanina.—Cotton. 665

1447 Dimitri, Constanti, Tirala, Yanina.—Cotton. 665

1448 Cazi, Agha, Caraman, Koniah.—Cotton bolls. 665

1449 Astadji, Narcisse, Aleppo.—Cotton. 665

1450 Djourbachi, Antolu, Maidos, Dardanelles.—Cotton. 665

1451 Andon, Constanti, Palatnos, Yanina.—Cotton. 666

1452 Tarako, Uskup, Monastir.—Spun flax. 666

1453 Mehemed, Marach, Aleppo.—Hemp. 666

1454 Damascus, Government of, Syria.—Hemp. 666

1455 Maimoun, Tripoli, Tripoli.—Wool. 667

1456 Kiyork, Dellale Oglou, Esinè, Dardanelles.—Wool. 667

1457 Kirkora, Adana, Adana.—Wool. 667

1458 Khalil Agha, Ourpha, Aleppo.—Wool. 667

1459 Hadji, Koniah, Koniah.—Wool. 667

1460 Volonia, Government of, Yanina.—Wool. 667

1461 Suleimaneeyah, Government of, Bagdad.
a Wool. 667
b Goat and other hair. 669

1462 Smyrna, Government of, Aydin.
a Wool. 667
b Cocoons. 668

1463 Youssouf, Aleppo, Aleppo.—Wool. 667

1464 Tigour Ahmed, Kangre, Castamouni.—Wool. 667

1465 Teftif Oglou Moussa, Koniah, Koniah.—Wool. 667

1466 Starri, Kangre, Castamouni.—Wool. 667

1467 Selim Kohi, Ichkodra, Monastir.—Wool. 667

1468 Panor Mamatti, Volonia, Yanina.—Wool. 667

1469 Moustapha, Hadji, Painbé Zadé, Esinè, Dardanelles.—Black wool. 667

1470 Mehemed Agha, Koniah, Koniah.—Wool. 667

1471 Couyoun Oglou Andon, Angoia.—Wool. 667

1472 Cherif Agha, Ezeroum.—Wool. 667

1473 Zadè Moustapha, Cheik, Kangre, Castamouni.—Wool. 667

1474 Avadjan, Sivas, Sivas.—Sheeps' wool. 667

1475 Arabe Mehemed, Mardin, Diarbekir.—Wool. 667

1476 Anagnosti, Pappadlaki, Lachite, Crete.—Wool. 667

1477 Ahgme Agha, Kangre, Castamouni.—Wool. 667

1478 Kochaf Ajediz, Antakia, Aleppo.—Cocoons. 668

1479 Karabet, Salonica.—Cccoons. 668

1480 Ibrahim Effendi, Hadji, Mihalgazi, Castamouni.—Cocoons. 668

1481 Samos, Government of.—Yellow and white cocoons. 668

1482 Berat, Government of, Yanina.—Cocoons. 668

1483 Estur Oglou Estur, Tias, Adana.—Cocoons. 668

1484 Banouch, Son, Kiranié, Yanina.—Cocoons. 668

1485 Avram, Adrianople.—Japanese cocoons. 668

1486 Yanaki, Tdomane, Yanina.—Cocoons. 668

1487 Yanaki, Thomas, Volonia, Yanina.—Cocoons. 668

1488 Yanak, Arap, Tdomane, Yanina.—Cocoons. 668

1489 Sukiasian, Adrianople.—Cocoons. 668

1490 Pemno Petcha, Tirala, Yanina.—Cocoons. 668

1491 Nakach, David, Diarbekir.—Cocoons. 668

1492 Mihali, Sullé, Koniah.—Cocoons. 668

1493 Makiani, Ipsser, Bigha, Dardanelles.—Cocoons. 668

1494 Anguel, Ichkodra, Monastir.—Cocoons. 668

1495 Anastassi, Antonafaki, Canea, Crete.—Blue and yellow cocoons. 668

1496 Ali Zotte, Caza, Yanina.—Cocoons. 668

1497 Mahmoud, Marach, Aleppo.—Goat hair. 669

1498 Hussein, Hadji, Koniah, Koniah.—Camel hair. 669

1499 Mohamed, Hadji, Koniah, Koniah.—Goat hair. 669

1500 Ali Effendi, Angora.—Angora goat wool. 669

Machines, Implements, and Processes of Manufacture.

1501 Christo, Yanina, Yanina.—Harrow. 570

Ornamental Trees, Shrubs, and Flowers.

1502 Théophani, Nicoforaki, Canea, Crete.—White lupine. 709

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

RUSSIA.

(*South of Nave, Columns 19 to 23.*)

Chemicals, Ceramics, Furniture.

Chemical Manufactures.

1 Koroleff, A., Vologda.—Ferrocyanate of potassa. 200

2 Lepeshkin, Nicolas, Moscow.
a Chemical products. 200
b Dyes, pigments of vegetable and animal extraction. 202

3 Ooshkoff, Peter, Elaboog, Government of Viatka.—Yellow chrome, blue copperas, and alum. 200

4 Poel, Alexander, St. Petersburg.—Oils, volatile extracts from the wild rosemary (sedum polustre). 200

5 Philosofoff, Basil, & Co., Kineshma, Government of Kostroma.—Chemicals. 200

6 Rastergaèff, Gregory, St. Petersburg.—Chemicals. 200

7 Matteissen, Nicolas, Moscow.—Potash. 200

8 Shlippe, Moscow.—Chemicals. 200

9 Bett, Theodore, Cronstadt.—Oil, refined lubricating. 201

10 Calcined Bone Manufacturing Co., St. Petersburg.—Burnt bone, bone grease, ammoniac, etc. 201

11 Calix, John, St. Petersburg.—Oil, lubricating. 201

12 Hartman, W., Riga.
a Oils, refined and drying. 201
b Oil varnish. 202

13 Yssakovitch, J. & M., Odessa.—Soap. 201

14 Krestovnikoff Bros., Kazan.—Stearine candles and glycerine. 201

15 Schmidt, C., Riga.—Oil, refined, linseed, oil cakes. 201

16 Tahlheim, George, Riga.—Lubricating grease. 201

18 Lankovski & Likop, Mitau.—Inks, writing, copying, and fluids. 202

20 Poiteling, Peter, St. Petersburg.—Varnish and lacker. 202

21 Wulf, Nicetas, Sokolovo, Government of Twer, District of Staritza.—Mineral paint, ochre. 202

22 Kramsta von Sosnowee Zinc Works, Piotrkoff, District of Bendzin.—White zinc. 202

23 Reichel, Julius, Warsaw.—Permanent marking colors. 202

24 Serdukoff, Basil, Borovitchi, Government of Novgorod.—Cosmetics. 203

25 Schmidt, Frederic, St. Petersburg.—Cosmetic soap. 203

26 Linde, F., St. Petersburg.—Glycerine, soap, and cosmetics. 203

27 Winner, St. Petersburg.—Black powder, exhibitor's system. 204

28 Okhta Gunpowder Mills, near St. Petersburg.—Black powder and its compounds. 204

29 Haase, J., Mitau.—Matches. 204

Ceramics—Pottery, Porcelain, Glass, etc.

30 Krishtafovlch, P. C., Gorodishtche, Government of Penza.—Refractory bricks. 206

31 Kharlamoff, M., St. Petersburg.—Ceramic statuary. 206

32 Rasterjaeff, Gregory, St. Petersburg.—Bricks. 206

33 Perm Gun Foundry, Perm.—Graphite crucibles. 207

34 Demidoff, Paul, Prince of Donato, Nigni Tagil, Ural Mountains, Government of Perm.—Clay stones; refractory furnace materials. 207

35 Museum of Fine Arts applied to Industry, Moscow.—Ornamental tiles. 208

36 Bonafede, Leopold, St. Petersburg.
a Enameled ornamental tiles. 208
b Enameled ornamental vases and plates. 211

37 Moltchanoff, Wladimir, Nigni Novgorod and Gyil, Government of Moscow, District of Bagorodsk.—Faience and earthenware. 210

38 Krasnostchekoff, Paul, Moscow.—Painted faience ware. 210

39 Cibulski, Cassimir Smeloff, Government of Rodom, District of Opatoff.—Stoneware. 210

40 Ter-Davydoff, St. Petersburg.—Earthenware jugs. 210

41 Museum of Fine Arts applied to Industry (attached to the Strogonoff School of Design).—Painted porcelain and stoneware. 211

43 Zaitzevski, St. Petersburg.—Ornamental pottery. 211

45 Korniloff Bros., St. Petersburg.—China cups and plates. 213

Furniture and Objects of General Use in Construction and in Dwellings.

47 Akimoff, Spiridonius Zagarzi, Government of Moscow, District of Bogorodsk.—Articles of church decoration. 217

48 Wunsh, Adolphus, St. Petersburg.—Writing-table and arm-chair. 217

49 Shrader, St. Petersburg.—Writing-table and arm-chair. 217

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

50 Shootoff, St. Petersburg.—Armchair, fancy. 217

51 Leontieff, St. Petersburg.—Japanned furniture. 217

52 Jgoomnoff, St. Petersburg.—Artistic furniture. 217

53 Briggen, Charles, St. Petersburg.—Billiard tables. 217

54 Stroem, Augustus, St. Petersburg, —Table furniture, in bronze. 218

55 Semenoff, Moscow.—Silver plate, gilt and enameled. 218

56 Morand, Adolphus, St. Petersburg. —Bronze samovar and bowl. 218

57 Ivanoff, N., St. Petersburg.—Silver plate, gilt and enameled. 218

58 Glookhoff, N. G.—Japanned ware. 218

60 Dutkevicz, X., Warsaw.—Melchior tea-pots, tray, and samovar (heated by a mineral oil lamp). 218

61 Bryzgaloff, St. Petersburg.—Silver-gilt jugs, cups, etc. 218

62 Botasheff, Basil, Toola.—Bronze and brass samovars. 218

63 Beliajeff, George, Fastavo, near Moscow.—Japanned trays, with pictures. 218

63*a* Hessrich & Woerffel, St. Petersburg. —Decorative articles of furniture, malachite, lapis, jasper, rhondonite, nephrite, labrador, with bronze fittings. 219

64 Jevleff, Andrew, Moscow.—Gilt frames. 220

65 Khrenoff, Pantelei, Egorievsk, Government of Riazan.—Carved frame, gilt. 220

66 Glinka, Paul, St. Petersburg.—Leather frames and decorative objects. 220

67 Goroshkoff, P., Yaroslaw.—Tin household utensils. 224

68 Beltzikewicz, Henry.—Portable cooking apparatus, heated by petroleum, with kitchen utensils. 224

69 Jvanitzki, L., Jarow, Government of Minsk, District of Retchitza.—Inlaid flooring. 227

Yarns and Woven Goods, of Vegetable and Mineral Materials.

70 Neuman, Hugo, Warsaw.—Endless copper-wire cloth, for paper-making machines. 228

71 Pashkoff, Basil, Bogojavlensk & Verkhatorie Copper Works, Government of Oafa.—Copper-wire cloth. 228

72 Beliajeff, Theodore, Moscow.—Mats and bags of lime-tree bark. 229

72*a* Loth, Edward, Warsaw.—Straw and bast goods. 229

73 Garelin, John, Yvanovo Voznessensk, Government of Wladimir.
a White calico and long cloth. 230
b Red cotton stuffs. 231
c Printed calico. 232

74 Garelin, Nikon, & Sons, Yvanovo Voznessensk, Government of Moscow.—Cotton yarn. 230

75 Konshin, John, Serpookhoff, Government of Moscow.—Cotton yarn. 230

76 Pale, T. Ch., St. Petersburg.
a Long cloths and twills. 230
b Cotton fabrics dyed. 231
c Cotton prints and calico. 232

77 Zimin, J. M. P. & F., Zooievo, Government of Moscow, District of Dogorodvsk.
a Cotton goods, plain and twilled. 230
b Red cotton stuff and Adrianople dye. 231
c Printed calico. 232

82 Reichel, Julius, Warsaw.—Cotton stuffs, printed from stone, wood, and metal. 232

83 Possilin, Alexis, Yvanovo Voznessensk.—Cotton stuffs. 232

84 Polooshin, Nicolas, Yvanovo Voznessensk, Government of Wladimir.—Printed calico. 232

86 Lopatin, Paul, Yvanovo, Voznessensk.—Printed calico. 232

87 Menshikoff's, W., Sons, Yvanovo Voznessensk.—Printed calico. 232

88 Koovajeff, Catherine, Yvanovo, Voznessensk.—Printed goods. 232

89 Garelin, Nikon, & Sons, Yvanovo Woznessensk.—Printed calico and kerchief. 232

91 Borissoff, Stephen, & Sons, Yvanovo Voznessensk, Government of Wladimir.—Printed calico. 232

93 Stieglitz, Baron Alexander, near Narva.—Sail cloth. 233

94 Mindovsky, Brukhanoff, & Babakin, Yoorjevietz, Government of Kostroma.—Flat yarn and thread. 233

95 Hille & Dietrich, Girardovo, Government of Warsaw.—Linen cloth, table linen, Turkish towels, etc. 233

96 Gribanoff, James, Sons, Oostioog, Government of Vologda.—Linens and linen yarns. 233

97 Alofoozoff & Alexandroff, Kazan.—Linen fabrics and yarns. 233

Woolen and Felted Goods of Wool, etc.

98 Stieglitz, Baron Alexander, near Narva.—Woolen cloths. 235

99 Seliverstoff, Nicolas, Roomiantzero, Government of Simbirsk, District of Karsoon.—Woolen cloths. 235

100 Sooviroff, V. N., Tooshino, Government and District of Moscow.—Woolen cloths and satins. 235

101 Kazejeff, Stephen, Kerensk, Government of Pensa.—Gray army cloth. 235

102 Gootchkoff, Efim, Moscow, Woolen cloth goods. 235

103 Possilin, Alexis, Yvanovo, Voznessensk, Government of Wladimir.—Woolen shawls. 237

104 Kommichau, Germanius, Belostok, Government of Grodno.—Woolen goods and blankets. 237

105 Gratcheff, John, Moscow.—Woolen shawls and scarfs. 237

106 Ooskoff, Peter, Moscow.—Dress goods (ladies' wear).

Woven Goods, Silk, Clothing.

107 Bagdanoff, W T., St. Petersburg. —Cushions. 238

108 Zolotareff's Widow & Ribakoff, Moscow.—Silk and mixed goods. 238

109 Shrader, Augustus, Moscow.—Woolen goods. 238

110 Poliakoff, N., & A., Bros., near Moscow.—Woolen and mixed fabrics. 238

111 Nikitin, Gorjaieff, & Co., Moscow. —Woolen and mixed goods. 238

112 Mikhailoff, Theodore, & Son, Moscow.—Woolen and mixed goods. 258

113 Ganeshin W. & N. Bros., & Co., Moscow.—Woolen yarn. 238

114 Borodin, Michael, Moscow.—Mixed silk fabrics, with cotton and wool. 238

115 Armand, Eugene, & Sons, Moscow. —Woolen and worsted goods. 238

116 Durkman, Bragestadt, Finland.—Embroidered carpet. 239

117 Voyeikoff, Demetrius, Sisran, Government of Simbirsk.—Camel's hair cloth. 240

118 Petroff & Medvedeff, St. Petersburg.—Woven goat-hair shawls. 240

120 Seliverstoff, Nicholas, Roomiantzevo, Government of Simbirsk, District of Karsoon.—Camels' and goats' hair. 240

122 Komaroff, Mercury, St. Petersburg. —Table covers. 241

Silk and Silk Fabrics.

123 Ganeshin, W. & N. Bros., & Co., Moscow.—Silk yarns. 244

124 Brashnin Bros., Nicolas & Nicetas, Orekhovo, Zooevo, Government of Moscow.—Silk stuff. 245

125 Timasheff, Alexander, Moscow.—Silk and mixed goods. 245

126 Emilianoff & Rochefort, Moscow. —Silk and mixed goods. 245

127 Zoobkoff, Sergius, Khomootovo, Government of Moscow, District of Bogorodsk.—Plain silk goods. 245

128 Shelajiff, S. & G., Bros., Moscow.—Plain silk goods, satin, and faille. 245

129 Perepelkin, John, St. Petersburg.—Silk stuffs for umbrellas. 245

130 Kondrasheff Bros., Grebenevo, Government of Moscow, District of Bogorodsk.—Silk goods, plain. 245

131 Sapojnikoff, A. & W., Moscow.—Figured silk goods and brocades. 246

132 Mozjookhin's, Theodore, Sons, Moscow.—Figured silk goods (upholstery). 246

133 Fomitcheff, Alexis, Moscow.—Silk goods, plain and figured. 246

134 Sytoff, John, Moscow.—Gold and silver cloth brocade. 247

135 Reichel, Julius, Warsaw.—Silk ties. 247

136 Boonin, John, Moscow.—Hosiery silk. 247

137 Lange & Co., Moscow.—Silk ribbons and wool ribbons. 248

138 Sytoff, John, Moscow.—Galloons and trimmings. 249

139 Zinserling, Charlotte, St. Petersburg.—Tape, cord, and bindings. 249

Clothing, Jewelry, and Ornaments; Traveling Equipments.

140 Reichel, Julius, Warsaw.—Shirt fronts. 250

141 Boonin, John, Moscow.—Hosiery cotton. 250

142 Florand, Jules, St. Petersburg.—Shirt fronts, embroidered. 250

143 Vinogradova, Anne, Nijni-Novgorod.—Fancy articles in ladies' dress, swan's down. 250

144 Wekmann, Malvina, Helsingfors. —Hosiery. 250

145 Shereshevsky, Nicolas, Moscow.—Shirts, chemises, and jackets. 250

146 Chief Intendency of War, St. Petersburg.—Articles of army equipments; illustrations of army dress. 250

147 Hooving, Walter, Wiborg, Finland.—Articles of ladies' dress, pellerines. 250

148 Sacken, Boetticher, Schmidt, & Ooss, Riga.—Millinery. 251

149 Popp, J., Riga.—Hats. 251

150 Sossoolnikoff, John, Nijni-Novgorod.—Felt boots and caps. 251

151 Bagdanoff, W. T., St. Petersburg.
a Boots, shoes, and slippers. 251
b Gold and silver embroidery. 252

152 Til, Charles, Moscow.—Boots, and felt caps. 251

153 Sitnoff, Gregory, Moscow.—Boots. 251

154 Laude, Peter, St. Petersburg.—Boots. 251

155 Szelibeiff, Theodore, St. Petersburg.—Boots and shoes. 251

156 Sorokin, Tichon, Moscow.—Gloves. 251

157 Kudelsky, Helen, Warsaw.—Kid gloves. 251

158 Szczepansky, F., Warsaw.—Boots, shoes, and slippers. 251

159 Strelnikoff, Basil, Yaransk, Government of Viatka.—Felt, boots, and shoes. 251

160 Smirnoff, N. Nijni-Novgorod.—Boots and shoes, felt. 251

161 Kitaizteff, W., Moscow.—Boots and galoshes. 254

162 Hubner, Nicolas, St. Petersburg.—Boots and shoes. 251

163 Fominsky, Basil, Kongoor, Government of Perm.—Boots. 251

164 Filimonoff, Alexander, St. Petersburg.—Military caps. 251

165 Wilkin, Leon, Moscow.—Hats and caps. 251

166 Weigt, Theodore, Warsaw.—Hats. 251

167 Shubert, Levis, Riga.—Hats. 251

168 Miakotin, John, St. Petersburg. —Hats and caps. 251

170 Tchistiakoff, Basil, Schawkin, St. Petersburg.—Hats and caps. 215

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Clothing, Embroidery, Jewelry, Fancy Articles, Stationery.

171 Nazareff, E., St. Petersburg.—Helmet (horse guards). 251

172 Ribe, Frederic, Riga.—Hats. 251

174 Kamaroff, Mercury, St. Petersburg.—Embroideries. 252

175 Stchelkoff, Sergiefsky-Possad, near Moscow.—Embroidered articles of church furniture. 252

176 Moltchanoff, Wladimlr, Vologda.—Russian lace and embroidery. 252

177 Koroleff, Basil, Toryok, Government of Twer.—Embroidered articles. 252

178 Koroleff, L., Moscow.—Embroidered and inlaid leather cushions. 252

179 Karelin, Toryok, Government of Twer.—Embroidered sashes, etc. 252

180 Kamenstchikoff, Toryok, Government of Twer.—Embroidered cushions, sashes, etc. 252

181 Arsenjeff, F., Vologda.—Russian ce laand embroidered eltows. 252

182 Tikhomandritzky, Nadin, St. Petersburg.—Embroideries, table cloths, etc., and articles of national costume. 252

183 Shadrin, Elias, Moscow.—Embroideries for uniforms, etc. 252

184 Sovetoff, Mary, St. Petersburg.—Embroidered shirt. 252

185 Society for the Encouragement of Women's Labor, Moscow.—Embroideries, towels, handkerchiefs. 252

186 Reichel, Julius, Warsaw.—Embroideries, handkerchiefs. 252

187 Nevossiltzeff, M., St. Petersburg.—Embroideries, lace. 252

188 Nadporosky, M., Belozersk, Government of Novgorod.—Embroideries, laces. 252

189 Hodjaieff, Karapet, St. Petersburg.—Silk and gold embroideries. 252

190 Gorodetzki, Alexander, Moscow.—Embroideries. 252

191 Hodjaieff, Karapet, St. Petersburg.—Brooch and earrings (Caucasian style). 253

192 Adler, W., Moscow.—Jewelry. 253

193 Alexeieff, A., Krasnoe & Sidorofskce, Government of Kostroma.—Silver chains and earrings. 253

194 Krumbügel, Otto, Moscow.—Jewelry. 253

195 Tchitcheleff, John, Moscow, Jewelry, diadems, bracelets, earrings, etc. 253

196 Grikooroff, St. Petersburg.—Silver ornaments, bracelets, brooches, belts, and studs. 253

197 Hessrich & Woerffel, St. Petersburg.—Jewelry, personal adornments in malachite, rhodorite, jasper, lopis, lazuli, and other Siberian hard stones. 253

198 Bach, St. Petersburg.—Silver bracelets in Niello and enamel. 253

199 Glinkin Bros., Government of Vologda, District of Kadnikoff.—Horn articles. 254

200 Aksenoff, Paul, Moscow.—Toys. 254

201 Perepelkin, John, Petersburg.—Umbrellas. 254

202 Minheimer, L., Warsaw.—Metallic buttons. 254

203 Maass, T., Mitau.—Wigs. 254

204 Loth, Edward, Warsaw.—Basket artificial flowers. 254

205 Kotzmann, E., Reval.—Umbrellas. 254

206 Hodjaieff, Karapet, St. Petersburg.—Cigar holders; Niello, with silver. 254

207 Bernstein Bros., H. & B., Ostrolenko, Government of Loenza.—Fancy articles in amber. 254

208 Pravotoroff, George, Moscow.—Umbrellas. 254

209 Fogt, St. Petersburg.—Pictures, made from dried plants and insects. 254

210 Vishniakoff, Joseph, & Sons, Ostashkovo, near Moscow.—Lacquered papier-maché articles, and japanned trays. 254

211 Nissen, William, St. Petersburg.—Leather goods, valises, trunks, bags, leather cushions. 255

212 Kleeberg, St. Petersburg.—Russia leather blotting case and pocket book. 255

213 Zimmerman, Roman, Moscow.—Portmanteaus and traveling-bags. 255

214 Mikhailoff, Alexis, Moscow.—Fur goods, carpet, costume. 256

215 Grünwald, M., Riga.—Furs; mosaic fur carpet. 256

216 Petroff & Medvedeff, St. Petersburg.—Furs, articles of winter dress for ladies. 256

217 Odnoooshefsky, M., & Sons, St. Petersburg.—Muffs, collars, and gorgette; sable and stone. 256

218 Soorin, Paul, St. Petersburg.—Mosaic fur carpet of three thousand pieces. 256

219 Komaroff, Nicetas, Moscow.—Articles of dress in sheepskin. 256

220 Litoff, K., Vologda.—National costumes of the Tyrians. 257

221 Hoving, Walter, Viborg, Finland.—Dolls, in national costumes. 257

222 Aristoff, Alexis, Moscow.—Cotton and woolen scarfs, used as sashes by the Russian peasantry. 257

223 Vedernikoff & Mikailoff, St. Petersburg.—National costumes and articles of clothing. 257

224 Sidoroff, Mikhael, St. Petersburg.—National costumes of Samoieds and Ostiaks, from extreme north of Russia. 257

Paper, Blank Books, Stationery.

225 Tahlheim, George, Riga.—Sealing wax. 258

226 Mirkovski Paper Mill Co., Weruszen, Government of Calisz, District of Velun.—Writing-paper. 256

227 Epstein, John, Soczevka, Warsaw, District of Gostyn.—Writing-paper, drawing and blotting paper. 259

228 Sergeieff, P. W., Pensa.—Writing-paper. 259

229 Frenkel, J. K., & Son, Tammerfors, Government of Tavastgus, Finland.—Writing-paper. 259

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

230 Vagoonin Bros., St. Petersburg.
a Writing-paper. 259
b Printing-paper. 260

231 Koomanin, Nicolas, Moscow.—Account books. 261

232 Kleeberg, Henry, Riga.—Account books. 261

233 Franaszek, T., Warsaw.—Paper-hangings. 264

Weapons, etc.

234 Kniaz Mikhaeloff's Crown Copper Works.—Gun barrels. 265

235 Koozmin, G., Toola.
a Guns. 265
b Dirks. 268

236 Griaznoff, Alexis, Toola.
a Pistols. 265
b Double-barreled guns. 269

237 Hahn, Baron, St. Petersburg.—Fortress rifle cartridges. 265

238 Imperial Rifle Manufactory, Toola.—Infantry rifles with bayonets; section of a gun-barrel. 265

239 Metallic Cartridge Manufactory, St. Petersburg.—Specimens of illustrations, metallic cartridges, distance fuses, and percussion. 265

240 Sestroretzk Rifle Manufactory, near St. Petersburg.—Calvary carabines, Cossack muskets. 265

241 Tenner, St. Petersburg.—Apparatus for wrapping bullets with paper. 265

242 Pootiloff Iron Works Co.—St. Petersburg.—Eleven-inch projectiles. 267

243 Raskazoff, St. Petersburg.—Model of a double stand for two forty-ton guns. 267

244 Ordnance Department, St. Petersburg.—Mortar and gun carriage (Semenaf's and Engelhardt's system). 267

245 Obookhoff Steel Foundry, near St. Petersburg.—Heavy ordnance gun carriages and platforms (wedge mechanism for breech loading). 267

246 Naval Artillery, Workshop of the port of Cronstadt.—Gun carriages and platforms, general, Pestrich's system. 267

247 Administration of the Olonetz Mining District.—Six-inch projectile with zinc covering. 267

248 Zlatoust Crown Armor Factory, Government of Orenburg.—Damascus swords, blades, daggers, and knives. 268

249 Hodjaieff, Karapet, St. Petersburg.—Asiatic dagger. 268

250 Yachimek, John, & Sosnovski, Jacob, Warsaw.—Double-barreled gun. 269

Medicine, Surgery, Prothesis.

251 Shmidt, Dr. von, St. Petersburg.—Guaco plaster. 272

252 Matteissen, Nicolas, Moscow.—Vegetable and animal products used in medicine. 272

253 Pik, Jacob, Warsaw.—Surgical instruments. 276

254 Ebermann, Alexander, St. Petersburg.—Urethrotome (exhibitor's system). 276

255 Crown Surgical Instrument Manufactory, St. Petersburg.—Set of surgical instruments (special purpose). 276

256 Wywodzeff, St. Petersburg.—Apparatus for embalming. 276

257 Bauch, Charles, St. Petersburg.—Artificial jaws, teeth, and palate. 277

258 Finkheim, William, Revel.—Artificial teeth, appliances for deformities of teeth and palate; apparatus for stammerers. 277

259 Majevski, T., Warsaw.—Odontalgic drops. 277

260 Bernardo, Berkmeier, Dr. L., Moscow.—Collection of artificial teeth and jaws. 277

261 Ivanoff, Timothy, Moscow.—Portable hospital couch (photographic copy). 278

262 Lilpop, Rau, & Loevenstein, Warsaw.—Steps for hospital wagon and springs for litter. 278

Hardware, Edge Tools, Cutlery, and Metallic Products.

263 Zavialoff, Alexis, Vorsma Government of Nijni-Novgorod.—Knives, penknives, and scissors. 281

264 Russian Rail Manufacturing Co., Government of Riason, District of Pronsk.—Iron and steel sewing and knitting needles. 281

265 Kondratoff, Demetrius, Vatcha, Government of Vladimir, District of Moorom.—Knives and penknives. 281

266 Kaliakin, John, & Sons, Pavlovo, Government of Nijni-Novgorod.—Knives and penknives. 281

267 Koozmin, T., Toola.—Cutlery, knives, and scissors. 281

268 Benkofski, Albert, Warsaw.—Cutlery (knives, penknives, scissors, etc). 281

269 Tarassoff, John, Novaiâ, Government of Moscow, District of Bogorodsk.—Embossed brass images (irons) and crosses. 283

270 Sossoolnikoff, John, Nijni-Novgorod.—Brass crosses. 283

271 Fedoroff, John, Zagarje Government of Moscow, District of Bogorodsk.—Silvered tureens and brass hand-wash basin. 283

272 Kataloff, Basil, Kroopino, Government of Moscow, District of Bogorodsk.—Brassware. 283

273 Elaghin, Constantine, Moscow.—Bronze ornamental castings. 283

274 Salobanoff, D. A., Nijnii-Novgorod.—Embossed brass images and crosses. 283

275 Naoomoff, Basil, Kroopino, Government of Moscow, District of Bogorodsk.—Bronze candlesticks. 283

276 Yoffrio, St. Petersburg.—Gasalier of forged iron. 284

277 Bessonoff Bros., Moscow.—Brass and iron hardware, bolts, etc. 284

278 Starr & Co., Riga.—Wire tack and square nails. 284

279 Hantke, Bernard, Warsaw.—Hardware, wire tack, railway ties, telegraphic fittings, chains, etc. 284

Fabrics of Vegetable, Animal, or Mineral Materials.

280 Russian American India-Rubber Co., St. Petersburg.—India-rubber goods, golashes, waterproofs, fire-engine hose, belts, etc. 285

281 Nemiloff, Clement, Ryeff, Government of Twer.—Hemp yarn. 287

282 Herczinski, W. Opolye, Government of Lublin, District of Nova Alexandria.—Cordage. 287

283 Nemiloff, Clement, Ryeff, Government of Twer.—Hemp, rope, and bolt rope yarns. 287

284 Fedoroff, John, Moscow.—Lime-tree bast hampers, samples of same material. 289

285 Booroff, S., Moscow.—Articles turned in wood. 289

286 Skorniakoff, E., Yaroslaw.—Articles turned in wood. 289

287 Serebrenikoff, Sergius, Nijni-Novgorod.—Painted wooden tureens and utensils for house. 289

288 Moltchanoff, Wladimir, Nijni-Novgorod, Vologda and Sergievski, Passad, near Moscow.—Wooden tureens and household articles. 289

289 Beliaieff, George, Fastavo, near Moscow.—Albums, papier-maché. 289

290 Safonoff, S. A., Sergievsky, Passad, Government of Moscow.—Toys carved in wood. 289

292 Mikhaeloff, Mrs., St. Petersburg.—Ornamental wooden tureens and spoons. 289

293 Mikhaeloff, Basil, Kretzky, Government of Novgorod.—Painted wooden household utensils. 289

294 Lookootin, Alexander, & Son, Moscow.—Lacquered and painted papier-maché articles. 289

295 Alexeieff, A., Oostug Veliki, Government of Vologda.—Basket, secret locks. 289

296 Serebrenikoff, Sergius, Nijnii-Novgorod.—Chests. 289

297 Mneff, John, Moscow.—Chests and caskets. 289

298 Solomonoff, P. Z., Moscow.—Chests. 289

Carriages, Vehicles, and Accessories.

299 Schmidt, Edward, St. Petersburg.—Patent carriage axles. 292

300 Chief Intendency of War, St. Petersburg.—War train-wagons and vehicles. 294

301 Shiloff, Athanasius, Moscow.—Harness, gilt fittings and trimmings. 296

302 St. Petersburg Arsenal.—Artillery harness. 296

303 Mück, William, Warsaw.—Hemp carriage trimming, bridles, girth for harness. 296

304 Lange & Co., Moscow.—Reins and saddle girths. 296

305 Roozin, Theodore, Pestovo, Government of Moscow, District of Bogorodsk.—Harness. 296

306 Sossoolnikoff, John, Nijnii-Novgorod.—Harness. 296

307 Hodjaeff, Karapet, St. Petersburg.—Harness and saddlery. 296

308 Herczinski, W., Warsaw.—Harness articles—reins, traces, saddles, etc. 296

309 Antonoff, Moscow.—Harness-bow (dooga) painted and gilt. 296

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Established 1790.

BATES, WALKER & CO.,

DALE HALL, BURSLEM, STAFFORDSHIRE, ENGLAND,

MANUFACTURERS OF

EARTHENWARE.

AGENCIES AND SHOW ROOMS:

PHILADELPHIA: 407 Arch Street.
NEW YORK: 58 Barclay Street.
MONTREAL: 346 and 348 St. Paul's Street.
LONDON: 30 Holborn.
PARIS: 3 Rue Bleue.
BERLIN: Oranienburgerstrasse 75.

Decorated Dinner, Tea, and Toilet Ware. Sanitary, Photographic, Druggists', Artists, Stationers' Ware. Boxes, Perfumery, and Ironmongers' Ware. Garden Seats, Stone Jugs, Teapots.

A. S. TOMKINSON, AGENT,

407 ARCH STREET.

THE WATCOMBE TERRA COTTA CO., LIMITED,

ST. MARY'S CHURCH, TORQUAY, DEVON, ENGLAND,

AND 202 OXFORD STREET, LONDON,

Manufacturers of a select assortment of Works of Art, Ornamental Vases, and other productions in Terra Cotta, suitable for Drawing and Dining-room Ornaments, and for general use.

Besides general Pottery and Fine Art Ware, the Company manufacture Architectural and Horticultural Terra Cotta.

A. S. TOMKINSON, Agent,

407 ARCH STREET.

JAMES EDWARDS & SON,

DALE HALL POTTERY, BURSLEM, STAFFORDSHIRE, ENGLAND,

Manufacturers of Electrical, Chemical, Galvanic, and Photographic Apparatus. Also, White Granite and Decorated Dinner, Tea, and Toilet Ware, suitable for the American Market.

SAM'L QUINCY & CO., Sole Agents, 58 Barclay St., New York.

A. S. TOMKINSON, 407 Arch Street, Philadelphia.

A. S. TOMKINSON,

407 Arch Street, PHILADELPHIA,

IMPORTER AND MANUFACTURERS' AGENT FOR

ENGLISH CHINA and EARTHENWARE,

AND AMERICAN GLASSWARE.

THE SUN NEWSPAPER

Is printed and published every day in the year, at 166, 168, and 170 Nassau Street, New York City. Its regular edition on secular days now (April, 1876) averages about **140,000**; its weekly edition over **88,000**; and its Sunday issue is nearly **100,000.** It thus prints and sells more than a million copies a week, which are read all over the United States. This is a circulation unprecedented in American journalism, and it is constantly on the increase. In proof of this, let the following figures testify. They show the number of copies of THE SUN printed every week during the year ending March 11, 1876.

WEEK ENDING		COPIES PRINTED.	WEEK ENDING		COPIES PRINTED.
March	20	849,382	September	18	860,358
	27	845,802		25	858,778
April	3	857,956	October	2	863,935
	10	863,556		9	870,820
	17	855,076		16	878,082
	24	858,270		23	874,625
May	1	869,542		30	876,160
	8	867,550	November	6	908,580
	15	877,450		13	852,372
	22	874,946		20	847,815
	29	866,276		27	836,248
June	5	873,782	December	4	845,378
	12	869,769		11	1,042,716
	19	880,348		18	956,294
	26	883,846		25	933,864
July	3	898,862	January	1	933,987
	10	867,574		8	952,201
	17	877,400		15	953,019
	24	876,282		22	969,910
	31	874,216		29	967,850
August	7	865,558	February	5	993,030
	14	875,982		12	1,024,647
	21	880,488		19	1,027,209
	28	870,502		26	1,014,766
September	4	872,211	March	4	1,014,993
	11	860,755		11	1,028,951
TOTAL		**46,799,769**			

In printing these papers, no less than three million four hundred and twenty-six thousand six hundred and ten (3,426,610) pounds of paper were consumed.

ADVERTISING RATES.

DAILY AND SUNDAY, 40 cents a line, ordinary advertising; large type, 80 cents; and preferred positions, 50 cents to $2.50, according to classification.

WEEKLY, 50 cents a line; no extra charge for large type. Preferred positions, from 75 cents to $2.00.

SUBSCRIPTION RATES.

DAILY (4 pages), by mail, **55c.** a month, or **$6.50** a year, postpaid; with Sunday edition, **$7.70.**

SUNDAY (8 pages), **$1.20** per year, postpaid.

WEEKLY (8 pages), **$1.20** per year, postpaid.

Address, THE SUN,

New York.

DEPT. III.—EDUCATION AND SCIENCE.

UNITED STATES.

School Text Books, Furniture, Apparatus.

Educational Systems, Methods, and Libraries.

1 **Barnes, A. S., & Co., New York,** N. Y.—School books, maps, charts, etc. T 73 *to* 78. 300

1*a* **New York Institution for the** Blind, New York, N. Y.—Maps, mathematical apparatus, books, tablet for tangible writing and musical annotation. (*South Gallery.*) 300

2 **New York Silicate Book Slate Co.,** New York, N. Y.—School book slates, liquid blackboard slating, blackboards on wall, cloth, and paper. T 68. 300

2*a* **National School Furniture Co.,** New York, N. Y.—School furniture. T 59. 300

3 **Smith, J. L., Map Publisher &** Manufacturer, No. 27 South Sixth street, Philadelphia.—Wall maps, pocket maps, atlases, guide books, globes. A large assortment of plain and mounted drawing-paper, all widths and lengths, and prepared to order; map cases and spring map rollers, hold four to sixteen large maps. 1st, for economy of space; 2d, they preserve the maps; 3d, they do not get out of order; 4th, they work easily. See circulars. T 74. 300

3*a* **Shepherd, Henry E.,** Superintendent of Public Instruction, Baltimore, Md.—Book-case (as prescribed), examination work, drawings, school furniture. (*South Gallery.*) 300

4 **Moeller, Peter W.,** New York, N. Y.—Adjustable blackboard frame. Q 78. 300

4*a* **Lloyd, E. Philadelphia, Pa.—Maps.** T 78. 300

5 **Nims, H. B., & Co., Troy, N. Y.** —Terrestrial and celestial globes. P 77. 300

5*a* **Doyle, Bros., Bangor, Me.—School** desk and folding seat. W 53. 300

6 **McDermott, Francis, New York,** N. Y.—School and library globes, slated globes. T 73 *to* 77. 300

7 **Mitchell, S. A., Philadelphia, Pa.** —Atlases, maps, engravings, etc. T 73. 300

7*a* **Boothby, Chas. W., New Orleans,** La.—Bound manuscript and album of drawings. (*South Gallery.*) 300

8 **Schermerhorn, J. W., & Co., New** York, N. Y.—Books, charts, and modern school material. (*South Gallery.*) 300

8*a* **American Missionary Association,** New York, N. Y.—Map, pictures of institutions, catalogues, histories, and examination papers. T 47 (*South Gallery.*)

9 **Peirce, I. Newton, Philadelphia,** Pa.—Combination desks, seats, settee, blackboard, model of a log cabin school house, maps. (*Pennsylvania Educational Building.*) 300

9*a* **Roos, Peter, Boston, Mass.—Draw-** ings. (*East Gallery.*) 300

10 **Steiger, E., 22 & 24 Frankfort** street, New York, N. Y.
- *a* Kindergarten material, kindergarten books. 300
- *b* Ahn-Henn's series of German and French school books for Americans, with reading charts, readers, and keys; German school books for Germans in America; automatic tellurian and school clock combined; Schedler's terrestrial and celestial globes, of from three to twenty inches diameter, costing from $1.50 to $175 each, altogether sixty different numbers; Schedler's relief maps. T 73 *to* 78. 300

10*a* **Schedler, Jos., Jersey City Heights,** N. J.—Terrestrial and celestial globes and relief maps. T 74. 300

10*b* **Andrews, A. H., & Co., Chicago, Ill.** —Globes, apparatus, and maps. T 67. 300

10*c* **Excelsior School Furniture Manu-** facturing Co., Cincinnati, O.—School furniture and apparatus, geographical models. T 52. 300

10*d* **Ingham University, Le Roy, N. Y.** —Paintings and crayons. T 40. 300

11 **Cowperthwait & Co., Philadel-** phia, Pa.—T 73.
- *a* Text books and wall maps for schools. 300
- *b* Illustrated works. 306

11*a* **Adams, S. C., Cincinnati, O.**— Illustrated map of the world's history. T 73. 300

11*b* **Whitall, Henry, Philadelphia, Pa.** —Movable planispheres of the heavens, astronomical indicator. (*South Gallery.*) 300

12 **Sower, Potts, & Co., Philadelphia,** Pa.—T 74.
- *a* Outline wall maps. 300
- *b* Normal school books. 301
- *c* Publications of five generations of Sower family. 306

13 **Ditson, J. E., & Co., Philadelphia,** Pa.—Sheet music. T 73 *to* 78. 302

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

School Text Books, Apparatus, Statistics, etc.

13*a* **Massachusetts Institute of Technology**, Boston, Mass.—Students' work, drawings, designs, note-books, theses, published memoirs, models, apparatus, inventions, metallurgical products, etc. (*East Gallery.*) 302

14 **Stevens Institute of Technology**, Hoboken, N. J.—A school of mechanical engineering. Course, four years in mathematics, physics, chemistry, mechanical drawing, mechanical engineering, French, German, and belles-lettres, with extensive laboratories, workshops, drawing-rooms, etc. Exhibit consists of instruments of measurement and for illustration, exhibiting methods of instruction. Designs of machinery made by students, and finished machines and instruments actually constructed by students; these illustrating the results of instruction. Lastly, results of original investigations carried out by members of the faculty. Illustrated catalogues sent on application. T 67. 302

14*a* **Cooper Union Evening School of** Science and Art, New York, N. Y.—Collection of drawings. T 46. 302

15 **Hampton Normal & Agricultural Institute**, Hampton, Va.—Views, oil paintings, ground plan of building and of experimental farm; photographs of building and of students, examination papers. (*South Gallery.*) 302

15*a* **Meyer, Louis, Philadelphia, Pa.**—Sheet music and music books. T 73 *to* 78. 302

15*b* **American Printing House for the** Blind, Louisville, Ky.—Books and apparatus for the blind, reports. (*South Gallery.*) 303

16 **State of Indiana Educational Department** (by S. H. Smart, Indianapolis).—Bound volumes of examination manuscripts, by pupils of schools at Indianapolis, Evansville, Terre Haute, Fort Wayne, Logansport, Richmond, Goshen, Plymouth, Bedford, Huntington, Elkhart, Lawrenceburg, Mishawaka, Kokomo, Vevay, Delphi, Franklin, Bartholomew county, Martinville, Salem, Vanderburg county, and Wayne county.

Reports and works of Indiana authors.

Drawings from schools.

"Indiana School Journal," plans of buildings, maps of cities, school blanks, etc.

Herbariums and botanical specimens prepared by pupils of schools at Bedford and Indianapolis.

School apparatus from Terre Haute.

Specimens from Owen cabinet.

Mineral collection by pupils of Huntington schools.

Electrical apparatus for weighing under glass, invented by Prof. H. W. Wiley, Purdue University.

Chemical products by pupils of Purdue University.

Indiana fishes, prepared by Prof. Copeland, of Indianapolis High School.

Zoological specimens, prepared by pupils of Indianapolis High School.

Native woods of Huntington county, by pupils of Huntington city schools.

Drawings from Fort Wayne, Indianapolis, and La Fayette schools.

Photographed blackboard work, specimens of penmanship and written music from Indianapolis schools.

School law of the State, condensed.

Photographed blackboard work from La Fayette, Fort Wayne, and Terre Haute schools.

Photographs of prominent educators.

Primary work of Indianapolis and Fort Wayne schools.

Models of Ward and High School buildings at Indianapolis, Fort Wayne, Evansville, Muncie, Terre Haute, and La Fayette.

Model of log school house, the first built in Delaware county, Indiana.

Charts, exhibiting school system and its growth, and the college system of the State.

Banners, exhibiting school system, statistics, distribution of school houses, and the growth of the system in twenty years by semi-decades.

Banners showing Purdue, Asbury, and State Universities, Wabash, Union, Christian, and Eastham Colleges.

Banners showing State and Northern Indiana normal schools, and Indianapolis and Huntington city systems. (*South Gallery.*) 304

17 **State of Michigan** (F. W. Noble, Secretary, Detroit, Mich.).—Michigan school system, its history, statistics, plans, elevations, interior views, and students' work in public, primary, graded, and high schools, universities, and colleges. Rare birds and marine and land animals from museum of Michigan University. (*South Gallery.*) 304

18 **State of Wisconsin Educational** Department (by Edward Searing, Superintendent of Public Instruction).—Students' work, photographs of school buildings, educational map, books, etc. (*South Gallery.*) 304

19 **Educational Exhibit of Ohio** (by Charles S. Smart, State Commissioner of Common Schools).—History of educational effort and progress in Ohio; local histories of colleges, universities, private and technical schools; city, town, and village schools, giving rise and development of graded school system, etc.; manuscripts of students' work, including drawing, penmanship, arithmetic, English grammar, English composition, geography, natural sciences, music, high school branches, etc.; graphic illustrations of school statistics and progress; photographs and lithographs of school and college grounds and buildings; reports of city schools for year ending 1875, and of State Commissioner of Common Schools from 1837 to 1875 inclusive; catalogues of colleges and technical schools; reports of benevolent institutions; centennial contribution from the pioneer association of Athens county, Ohio. (*South Gallery.*) 304

19*a* **University of Nebraska.**—Photographs of building, etc. (*South Gallery.*) 304

20 **State of Rhode Island Board of** Education, Providence, R. I. (by T. B. Stockwell, Commissioner of Public Schools).—General history of education in the State; full set of State school reports; common school manual; annual reports for 1875 from the various cities and towns; documents relating to Brown University; history of Rhode Island Institute of Instruction; catalogues of State Normal School and Mowry & Goff's School; set of State and Newport school blanks; file

of the Rhode Island "Schoolmaster;" statistical chart; school map of State and cities of Providence and Newport; course of study for State Normal School.

Providence public schools—Examinations from grammar and high schools, map and free hand drawing, design from flat copy, industrial drawings and crayon portraits. Warner's Commercial College—Drawings and penmanship; written examinations from primary, intermediate, grammar, and high schools, with map and free hand drawing and designs from Newport, Westerly, Woonsocket, Coventry, Warwick, Richmond, and Smithfield public schools.

Perspective views of new library of Brown University and Woonsocket new high school, with plans and specifications; plans of some of the school buildings in Providence; views of Rhode Island State Normal School (study hall), Friends' Boarding School, and intermediate school of Providence; views of school houses of Tiverton, Bristol, Newport, and Woonsocket.

Class volume of photographs, Brown University, 1876; school furniture from E. M. Thurston, Providence; blackboard from H. H. Burrington, Providence; book holders from I. S. & C. N. Brown, Providence. (*South Gallery.*) 304

21 State of New Hampshire, Department of Public Instruction (by John W. Simonds, State Superintendent, Franklin, N.H.).—Kindergarten school—Specimens of kindergarten work. Public schools—Slates covered with work of primary pupils; specimens of scholars' written work, and examinations, compositions, drawings, penmanship; maps and plans; photographs and plans of school buildings and rooms; photographs of school superintendents and teachers; illustrated school register; wooden model of school-house.

Academies, seminaries, and high schools—Photographs and plans of buildings and rooms; photographs of teachers and students; students' written work, drawings, etc.

Dartmouth College—Bound catalogues and pamphlets, students' examination papers, drawings, illustrated programme, map of grounds, portraits of faculty and class of 1876; plans and views of buildings and rooms; relief map of the White Mountains.

State Normal School—Reports; students' written work.

Thayer School of Engineering—Model Pratt truss railroad bridge.

Chandler Scientific School—Drawings, surveying papers, railroad map, models in plaster, examination papers and abstracts; essays.

Agricultural College—Geological map.

State school laws, reports, and registers; town school reports, history and catalogue of academies, etc.; records of normal school; Bouton's provincial papers.

Educational publications; histories of towns; text books used 100 years ago; text books in present use; publications of E. C. Eastman. (*South Gallery.*) 304

22 State of Connecticut Educational Department (by B. G. Northrop, Secretary, Hartford, Conn.).—Work by scholars and Chinese students; photographs of schoolhouses; works by former members of Yale College. (*South Gallery.*) 304

23 State of Illinois, Department of Public Instruction (by S. M. Etter, Superintendent).—Reports of the department, and history of education in the State.

Public schools—Pupils' work, school apparatus, drawings, books, maps, etc.

Chicago public schools—Portfolios of examination papers, photographs, drawings, etc.

Colleges and Seminaries—Work of students, museums, etc.

Industrial University, Champaign, Ill.—Books, portfolios, and charts, containing work of students.

Illinois Normal Universities—Work of students, museums, etc. (*East Gallery.*) 304

24 State of Maine, Educational Department (by Warren Johnson, State Superintendent, Augusta, Me.).

Kindergarten school, Lewiston; public schools in Portland, Bangor, Bath, Lewiston, Calais, Augusta, and various other cities and towns; private schools; Johnson Home School for Boys; Abbott School for Boys; St. Catharine's School for Girls, and others. School furniture from Doyle Bros., Bangor.

Bowdoin College, Colby University, Bates College.

Maine Wesleyan Seminary and Female College, Westbrook Seminary, Waterville Classical Institute, Maine Central Institute, Hallowell Classical Institute, and others; Western Normal School; Farmington and Eastern Normal School, Castine.

State collection of agriculture and mechanic arts. (*South Gallery.*) 304

25 State of Iowa, Educational Department (by Alonzo Abernethy, Des Moines).—Collective exhibit of the public schools of Davenport, Des Moines, Atlantic, Museatine, Ottumwa, Marengo, Boone, Sigourney, Winterset, Lyons, Indianola, Wheatland, Clarence, Friends' Academy, Le Grand, and Osceola, Mt. Pleasant, Jefferson, West Liberty, Mason City, Wilton, Burlington, Sioux City, Denison, Kellogg, and of Oskaloosa, Amity, and Western Colleges, Iowa. Reports, charts, drawings, and examination manuscripts.

Iowa School Furniture Co.—School desks and seats. (*South Gallery.*) 304

25*a* State of Missouri, Educational Department (by Wm. T. Harris, St. Louis, Mo.).—Volumes of school furniture and photographs of schools. (*South Gallery.*) 304

26*a* State of Maryland Educational Exhibit. (T 38 *and South Gallery.*)

26 State of Tennessee Educational Department, collective exhibit.

Trousdale, Leon, State Superintendent of Schools, Nashville, Tenn.—Reports and school banner.

Dean, John R., County Superintendent, Shelbyville, Tenn.—Manuscripts of pupils of the schools, and school banner.

Presnell, H., County Superintendent of Schools, Jonesboro, Tenn.—Photographs of Colored Training School and South Normal School buildings.

Pickett, A., City Superintendent of Schools, Memphis, Tenn.—Examination manuscripts and principles of instruction; geographical drawings.

Caldwell, S. Y., City Superintendent,

Nashville, Tenn.—Examination manuscripts, drawings, school banner, and annual reports.

Perkins, W. H., Principal Peabody Graded School, Powell's Station, Tenn.—Examination manuscripts of classes D and C, second grade.

Tennessee Medical Society, Nashville, Tenn.—Transactions of the session 1845.

Lindsley, J. Berrian, Nashville, Tenn.—Life and works of Philip Lindsley.

Giers, C. C., Nashville, Tenn.—Photographs of educators. (*South Gallery.*) 304

17 **Commonwealth of Massachusetts,** Department of Education and Science.

Drawing and Modeling.—Industrial, mechanical, and free hand, from the public day, evening, and Normal Art School; from the Massachusetts Institute of Technology, the Worcester Free Institute, and Boston Art Academy, nearly one thousand exhibits.

The Massachusetts System of Art Instruction for industrial, free hand, mechanical, and other drawing, designs of various kinds, models, and text books for schools and advanced study in drawing, designing, and modeling. Prepared by Butler Smith, published by L. Prang & Co.; exhibited in twenty-eight text books, one hundred and thirty-eight studies, forty-seven models, and fifty-seven casts.

Photographs.—*Universities, Colleges, and Technical Schools:* Howard University, Bussey Institute, Williams College, Amherst College, Tuft's College, Boston College, College of the Holy Cross, Museum of Comparative Zoology, Massachusetts Institute of Technology, and Worcester Free Institute.

Women's Colleges: Mt. Holyoke, Wellesley, and Smith, Clarke's Articulating School for the Deaf.

Normal Schools: Bridgewater, Framingham, Westfield, Salem, and Worcester (interiors and exteriors).

School houses: Primary, grammar, high, and private schools of Boston, New Bedford, Greenfield, Salem, and other towns.

Harvard University, represented by photographs, catalogues, and courses of study.

Williams College, by photographs, catalogues, text books, and publications of its presidents and professors.

Amherst College, by photographs, catalogues, text books, history, and student life at Amherst.

Tuft's College, by photographs, text books, and catalogues; from the scientific department, instruments for the projection of Lissajou's curves, and the opeidoscope, by Prof. Dolbear.

Boston University, by year-books.

Boston College, by photographs and catalogues.

College of the Holy Cross: Photograph and historical sketch.

Mt. Holyoke Seminary: Photographs, water colors, catalogues, reports, documents, and history, memoir of Miss Lyon, first principal.

Wellesley College: Photographs, water colors, and drawings of buildings and interiors, circulars, pamphlet of history, and sketch.

Smith's College: Photographs, water colors, ground and other plans, history, and pamphlets.

Museum of Comparative Zoology: drawings, illustrated catalogues, bulletins, and reports, bust of Prof. Agassiz, contributions to natural history of the United States.

Massachusetts Institute of Technology: Photographs, documents, and students' works, as follows: drawings and original designs in civil and mechanical engineering and architecture; physical, metallurgical, mining, and surveying apparatus; results of physical experiments; models of engineering structures; silver and lead extracted from the ore; tablet of the metric system; theses by graduates in civil, mechanical, and mining engineering, architecture, chemistry, metallurgy, natural history, physics, science, and literature and philosophy; designs for various textile fabrics, oil-cloths, porcelain decorations, etc., by students of the Lowell Free Course of Practical Design.

Worcester Free Institute: Drawings and photographs, plan of study and discipline, students' work exhibited in examination papers, drawings, designs, physical apparatus and models.

Theological Seminary, Andover: Memorial catalogues, etc.

Theological Institution, Newton: Photographs, catalogues, etc.

Clarke's Institution for the Deaf, Northampton: Photographs, history, and system of teaching by articulation and lip-reading, annual reports; system of visible speech, by A. Graham Bell.

Perkins's Institution for the Blind: Specimens of books printed at the asylum; work of pupils; Dr. Howe's reports.

Nathaniel Bowditch: Bust and works.

Horace Mann: Portrait, life, lectures, and reports.

Collective Exhibits: From Boston, New Bedford, and Greenfield, illustrating the system of public instruction in the large and small cities and towns, including text books, reference books, and apparatus: text books used in Tuft's College, Williams, and Amherst, in the public schools of Boston, New Bedford, Greenfield; text books used in different cities and towns of the State.

Pupils' Work.—From primary, grammar, and high schools, in two hundred and ninety bound volumes and on seventy-two slates; specimens of sewing from grammar schools, in six portfolios; desk-mat, primary department, Gratton.

Public Libraries.—*Boston Public Library:* Seventeen bound volumes, history, catalogues, administration, annual and quarterly reports.

Catalogues and photographs of libraries in Salem, Springfield, Lynn, Concord, and other towns.

Reports.—Complete set of reports of State Board of Education, from 1837 to 1876, bound in twenty-nine volumes.

Complete set of annual school reports for 1875, from eighteen cities and three hundred and twenty-four towns, in twelve volumes.

Annual State Reports for 1875.—Board of Education, Board of State Charities, Board of Health, Bureau of Labor Statistics, Registration of Births and Deaths, State Librarian, Board of Agriculture, Treasurer, Adjutant-General, Auditor, Annual Returns of Corporations, Trustees of the Perkins Institution for the Blind, Trustees of the School for Idiotic and Feeble-Minded Children, Commission-

ers of Railroads, Commisioners of Harbors, Commissioners of Insurance, Commissioners of Taxes, Commissioners of Savings Banks, Commissioners of State Prison, Inspectors of State Prison, Inspectors of State Workhouse, Bridgewater; Inspectors of State Almshouse, Tewksbury; Inspectors of State Primary School, Mouser; Inspectors of State Gas; Trustees Industrial School for Girls; Trustees State Reform School, Westboro'; Trustees Lunatic Asylum, Taunton; Trustees Lunatic Asylum, Northampton; Trustees Lunatic Asylum, Worcester; Trustees Lunatic Asylum, Danvers; Census of the State for 1865; Acts and Resolves for 1875; Public Documents, 1862 to 1874; Plymouth Colony and Massachusetts Bay Records; Decisions of Supreme Judicial Courts; Directories, city and county, from Sampson, Davenport & Co., Greenough & Co., D. Dudley & Briggs; Publications and Text books, from Brewer & Tileston, G. & C. Merriam, Thompson, Brown & Co., Schoenhof & Moeller, R. S. Davis & Co., W. F. Draper, Grim Bros., Oliver Ditson.

Publications of Societies: Natural History, Numismatic, Historic, Genealogical, Medical Improvement.

Reports of associations, organizations, towns, public libraries, etc.; Psyche Advertiser of Entomology.

Periodical Literature: A copy of every newspaper and periodical published in Massachusetts in 1876, bound in eleven volumes; New England Journal of Education for 1875 and 1876.

American Academy of Arts and Sciences: Proceedings, memoirs, and other works, thirty-four volumes

Essex Institute: Full set of works; American Naturalist, nine volumes.

Peabody Academy of Science: Two volumes; complete set of Asa Gray's works; scientific, educational, and miscellaneous publications by Massachusetts authors; photographs and autographs of some of the living authors of Massachusetts; a series of astronomical drawings (thirty-four), from the physical observations of L. Trouvelot; Cambridge pastel drawings, from actual telescopic observations requiring ten years for their preparation, representing most interesting objects in astronomy, as comets, clusters, nebulæ, meteors, solar spots and protuberances, eclipses, moon craters, planets, zodiacal light, aurora borealis, etc.

Reports Specially Prepared for this Exhibit.—American Board of Commissioners for Foreign Missions; College of the Holy Cross; Boston College, 1874–1876; Clarke Institution for the Deaf; Mount Holyoke Seminary; Wellesley College; Smith College; Worcester Free Institute; Worcester Academy; Worcester Lyceum; Worcester Public Library; State Normal School, Bridgewater; State Normal School, Westfield; Publications Williams College, 1793–1876; Public Charities of Massachusetts, 1776–1876; Statistics of Schools, Greenfield; Statistics of High School, Pittsfield; Report of Grammar School, Pittsfield; Questions for Written Examinations, Worcester; Worcester Truant School; Worcester Productive Union; Worcester County Musical Association; Worcester Choral Union; Worcester Young Men's Christian Association; Worcester Home for Aged Females; Worcester Children's Friend Society; Massachusetts Temperance Alliance; New England Hospital for Women and Children; Temporary Home for Discharged Female Prisoners; Home for Little Wanderers; School for Pauper Boys; Industrial School for Girls, Dorchester; Washingtonian Home.

Maps.—Educational, representing the universities, colleges, professional and technical institutions, academies, normal, high, grammar, primary, and ungraded schools and public libraries in the State; geological, hypsometric, density of population, proportion of foreigners to native population, trades and occupations, land under cultivation, wealth, railroads, births, deaths, and marriages; Nantucket historical and geographical map; Hoosac tunnel, large profile, twenty-three feet in length, with fifty-eight photographs; illustrated missionary map of the world, showing every station of the A. B. C. F. M.: globe, by E. C. Fitz.

Architectural Illustrations of Insane Asylums at Danvers, Worcester, and Northampton; New England Hospital for Women and Children, in Boston; Washingtonian Home, at Boston; Reformatory Prison for Women, at Sherborn; School for Neglected Children, at Deer Island (private); Institution for Feeble Minded Youth, at Barre; Warren Street Chapel, Boston; Abattoir, at Brighton.

Miscellaneous. — Carving of wood from Washington's elm, Cambridge; illustration and description of Mastodon giganteus; astronomical lantern, from J. F. Clark; system of tachygraphy, by D. P. Linsley; specimen penmanship, by K. O. Herline; arithmetical cards, by Misses Faxon & Walcutt; tablet of metric system, J. P. Putnam, with pamphlet; natural history series and aids to object teaching, L. Prang & Co.; case containing two thousand crayons, Parmenter & Walker, Waltham; reversible blackboard, by Zollinger; health-lift, by W. A. Knight; method of teaching music, by Mrs. J. B. Paige and H. M. Tappan; stereoscope and stereoscopic views of public buildings of historical interest; insurance tables, by Elizur Wright; school furniture, from A. G. Whitcomb and W. O. Haskell & Son; combination desk and organ, George Woods & Co.

Kindergarten: Inventions of children from four to six years of age; material for instruction, by Milton, Bradley, & Co.

Micro-photographs by Dr. E. Cutter.

Photographs of cities, libraries, high and other schools.

Exhibit illustrating the interest, progress, and condition, by the Essex Institute, four tables and one hundred and twenty-eight photographs, charts, models, and books, from S. E. Warren.

Society for the "Prevention of Cruelty to Dumb Animals," with improved methods for their treatment, books, newspaper, tracts, etc.

Photographs of specimens from Brown High School, Newburyport. (*East Gallery.*)

27*a* **State of Minnesota, Educational Department.**—Bound volumes of examination papers, maps, drawings, etc., from the public schools of St. Paul, L. M. Burrington, Superintendent of Public Schools; bound volumes of examination papers, maps, drawings, etc., from the public

schools of Minneapolis and Winona, O. V. Tousley, Superintendent; designs and plans for school buildings, exhibited by A. Langdon, Winona. (*South Gallery.*) 304

28 State of New Jersey, Department of Public Instruction (by Ellis A. Apgar, Trenton, N. J.).—Work by school children, viz.: maps drawn from memory; mathematical operations; analysis and parsing; compositions; spelling; primary and miscellaneous work; artistic drawing in crayon, indian ink, and lead pencil; mineral and natural history collections; mechanical contrivances; photographic views, exterior and interior of school-houses, and decennial exhibit of their improvements, showing condition in 1866 and 1876; kindergarten work; penmanship; history of schools in New Jersey; works written by alumni of Princeton and Rutgers Colleges, and photographic views of the same. (*South Gallery.*) 304

29 State of Pennsylvania.—Educational exhibit shown in Pennsylvania Educational Hall. 304

29*a* Peirce's Union Business College.—Exhibit noticed under special buildings. (*Pennsylvania Educational Hall.*)

30 Bartlett, John R., Providence, R. I.—Catalogue of the library of the late John Carter Brown, relating to America. T 75. 305

31 Lippincott, J. B., & Co., Philadelphia, Pa.—Selected publications printed and bound in their establishment. T 72. 306

31*a* Lockwood, George R., New York, N. Y.—Audubon's Birds of America and Birds and Quadrupeds of America. T 75. 306

32 Porter & Coates, Philadelphia, Pa.—Books. T 73 *to* 78. 306

32*a* Merriam, G. & C., Springfield, Mass.—Copies of Dr. Noah Webster's works. T 73 *to* 78. 306

33 Davis, Chas. H., & Co., Philadelphia, Pa.—Zell's Encyclopedia, Hand Atlas, Cyclopedia of American Literature, and United States Business Directory; Centennial map of one hundred and thirty-six miles around Philadelphia. A specimen of Zell's Encyclopedia with map will be sent to any address on receipt of twenty cents. T 73 *to* 78. 306

33*a* Methodist Book Concern, New York, N. Y.—Miscellaneous books, Bibles, and hymn-books, Sunday-school libraries, teachers' helps. T 76. 306

34 Burley, S. W., Philadelphia, Pa.—Historical, descriptive, and statistical books. T 73. 306

34*a* Marshall, B. F. jr., Mobile, Ala.—The accountant's vade mecum. T 73 *to* 78. 306

35 Holman, A. J., & Co., Philadelphia, Pa.—Bibles. T 74. 306

35*a* Clark & Maynard, New York, N. Y.—Educational, Masonic, and miscellaneous works. T 73 *to* 78. 306

36 Presbyterian Board of Publication, Philadelphia, Pa.—Theological, practical, and Sabbath-school books and periodicals. T 74. 306

36*a* Miller, James, New York, N. Y.—Books. T 77. 306

37 Kohler, Ignatius, Philadelphia, Pa.—Publisher of German family Bibles, theological, classical, and miscellaneous works, viz., Schiller's Works, German, two editions, two volumes, and twelve volumes; Schiller's Works, English, complete in two volumes; Schiller's Poems, German-English, on opposite pages; German-English dictionaries, etc., etc. German classical, theological, and miscellaneous books. T 73 *to* 78. 306

37*a* Gevin Bros., Boston, Mass.—Educational and other works. T 77. 306

38 Allen, Henry S., New York, N. Y.—History of America. T 77. 306

38*a* Peters, J. L., New York, N. Y.—Musical magazines, sheet music, etc. T 73 *to* 78. 306

39 Wilson, Hinkle, & Co., Cincinnati, O.—Educational books. T 74. 306

39*a* Hoyt, Henry, Boston, Mass.—Books. T 77. 306

40 Calmann, Chas., Philadelphia, Pa.—Book of business firms in the United States. T 73. 306

40*a* McLoughlin Bros., New York, N. Y.—Toy books, games, etc. T 73 *to* 78. 308

41 Ivison, Blakeman, Taylor, & Co., New York, N. Y.—School and college text books; Spencerian system of penmanship. T 77. 306

41*a* Estes & Lauriat, Boston, Mass.—Books. T 77. 306

42 Graham, Andrew J., New York, N. Y.—Phonographic works. T 73. 306

42*a* Blodget, Lorin, Philadelphia, Pa.—Meteorological works and charts. T 73. 306

42*b* Putnam, G. P., & Sons, New York, N. Y.—Books. T 73. 306

43 Butler, J. H., & Co., Philadelphia, Pa.—Educational text books and outline maps. T 73. 306

43*a* Cook, E. A., & Co., Chicago, Ill.—Expositions of Freemasonry, etc. T 73. 306

44 Wood, Wm., & Co., New York, N. Y.—Medical books. T 77. 306

44*a* Harper & Bros., New York, N. Y.—Miscellaneous books, and complete sets of periodicals. T 77. 306

45 National Temperance Society, New York, N. Y.—Temperance books, tracts, pamphlets, papers, diagrams, etc. T 76. 306

45*a* Harding, W. W., Philadelphia, Pa.—Bibles, Testaments, and photograph albums. T 73. 306

46 Bicknell, A. J., & Co., New York, N. Y.—Books for builders. T 70. 306

46*a* Sherwood, George, & Co., Chicago, Ill.—Educational books. T 73 *to* 78. 306

47 Anglim, James, Washington, D. C.—Biographical annals of the civil government of the United States during its first century, by Charles Lanman. T 76. 306

47*a* Still, William, Philadelphia, Pa.—Book—The Underground Railroad. P 73. 306

48 Claxton, Remsen & Haffelfinger, Philadelphia, Pa.—Books, games historical charts, Centennial Guide and map of Philadelphia. T 73 *to* 78. 306

48*a* Swasey, J. N., Yonkers, N. Y.—Iconographic chart. T 52. 306

49 Kelly, Thomas, New York, N. Y.—Catholic prayer books and Bibles. T 77. 306

49*x* Atwood, John M., Philadelphia, Pa.—Map of North America. T 73. 306

50 Sheldon & Co., New York, N. Y.—School and college text-books; theological, religious, miscellaneous, and juvenile books; "Galaxy" magazine. T 77. 306

50*a* Dewey, D. M., Rochester, N. Y.—Plates of ornamental trees, fruits, and flowers of America. T 73 *to* 78. 306

51 Burlock, Saml. D., & Co., Philadelphia, Pa.—Photograph albums, Bibles. T 73. 306

51*a* Townsend, G. W., Philadelphia, Pa.—Napoleon question slips, for cultivating habits of thought, intended for educational uses, and the greatest good to the greatest number. For sale by Claxton, Remsen & Haffelfinger, Philadelphia, Pa., in packages, fifty cents and one dollar. T 73. 306

52 Potter, John E., & Co., Philadelphia, Pa.—Bible Encyclopedia, Bibles, Testaments, and standard miscellaneous books. T 76. 30

52*a* Virtue & Yorston, New York, N. Y.—T 73.
a Books, bound and in parts. 306
b Steel engraving. 421

53 Baird, Henry Carey, & Co., Philadelphia, Pa.—Practical, scientific, and economic books. T 75. 306

53*a* United States Publishing Co., New York, N. Y.—Our First Hundred Years, and other books. T 73. 306

54 Orange Judd Co., New York, N. Y.—"American Agriculturist" and rural books. T 73. 306

55 American Sunday-School Union, Philadelphia, Pa.—Evangelical publications for Sunday-schools and families. T 73. 306

55*a* Goodrich, D. W., New York, N. Y.—Books and calendars. T 73. 306

56 Appleton, D., & Co., Philadelphia, Pa.—Books. T 73 *to* 78. 306

57 Gebbie & Barrie, Philadelphia, Pa.—Fine art publications. N 71. 306

58 Roberts, Rev. H. Floy, Williamsburgh, N. Y.—Manuscript interlinear New Testament; the original Greek text, verbally translated, compared with our English version. T 73. 306

59 Asher & Adams, New York, N. Y.—Pictorial album, atlases, maps, and specimens of printing. T 73. 306

60 American Bible Society, New York.—Bibles in ancient and modern languages and various bindings. T 75. 306

61 Potter, Ainsworth, & Co., New York, N. Y.—School books. T 76. 306

62 Griffiths, John W., New York, N. Y.—Works on ship building. T 76. 306

62*a* Michels, Ivan C., New York, N. Y.—Book containing the Lord's Prayer in five hundred languages; work of great research, comprising the labor of twenty-three years. T 75. 306

63 Johnson, T. & J. W., & Co., Philadelphia, Pa.—American and English law text books and reports. T 75. 306

64 Peterson, T. B., & Bros., **306** Chestnut street, Philadelphia, Pa.—Booksellers and publishers of American and foreign novelists. Call or send for illustrated catalogue. Books. T 77. 306

65 Stoddart, J. M., & Co., Philadelphia.—General literature; American edition of the "Encyclopedia Britannica." T 74. 306

66 Rice, D., & Co., Philadelphia, Pa.—McKenney's Indian Tribes of North America, one hundred and twenty illustrations (government edition), folio, three volumes; Michaux & Nuttall's Sylva, two hundred and seventy-seven illustrations, five volumes; National Portrait Gallery of Distinguished Americans, one hundred and fifty illustrations, three volumes. T 75. 306

67 Brewer & Tileston, Boston, Mass.—Worcester's dictionaries, arithmetics, histories. T 76. 306

68 University Publishing Co., New York, N. Y.—School books; Maury's geographies and wall maps; Venable's mathematics; Holmes's readers, United States history and grammars; Gildersleeve's Latin books; Carter's general history, etc. T 77. 306

69 Houghton, H. O., & Co., Riverside Press, Cambridge, Mass.; Hurd & Houghton, New York, N. Y.—Specimens of fine book printing, selected from their own publications and books printed for others; among them, Lord Bacon's Works, five copies only, printed on India paper; Notes on Columbus; and the Bibliotheca Americana, being the catalogue of the library of the late John Carter Brown, of Providence. Also framed specimens of plain and colored lithographic printing, designed and printed at the Riverside Press,—among them Longfellow's portrait, drawn by Baker, issued only with the Atlantic Monthly. T 73. (*On the Pavilion of the American Book Trade Association.*) 306

70 Masonic Publishing Co., New York, N. Y.—Masonic books and publications. T 73. 306

71 Wells, S. R., & Co., New York, N. Y.—Phrenological books and specimens, including busts and paintings, miscellaneous publications. T 77. 306

72 Scribner, Armstrong & Co., New York, N. Y.—Books, maps, etc. T 77. 306

73 American Tract Society, New York, N. Y.—Books, tracts, periodicals, wood engravings, teachers' Bibles, etc. T 76. 306

74 Sabin, J., & Sons, New York, N. Y.—Dictionary of books relating to America. T 75. 306

75 Leypoldt, F., New York, N. Y.—Publishers' Weekly, Trade List Annual, and other trade publications. T 75. 306

Books, Publications, Archæological Collections.

76 Kehoe, Lawrence, The Catholic Publication Society, New York, N. Y.—Catholic books of history, devotion, controversy, and general literature. T 77. 306

77 Lindsay & Blakiston, Philadelphia, Pa.—Medical, dental, and scientific books; physicians' visiting list. T 73. 306

78 Kay & Bro., Philadelphia, Pa.—American and English law books. T 74. 306

79 Lee & Shepard, Boston, Mass.—Books. T 73 *to* 78. 306

80 Osgood, James R., & Co., Boston, Mass.—Books. T 73 *to* 78. 306

82 Seventh Day Adventist Publishing Association, Battle Creek, Mich.—Periodicals, books, and tracts. T 73. 306

83 Knapp, Albert E., Poultney, Vt.—Pictorial family Bible and continuous genealogical family record, for photographs and autographs of heads of families for successive generations. T 73. 306

84 American News Co., New York, N. Y.—American Bookseller's Guide and American Bookseller. T 75. 306

85 Miller's Bible & Publishing House, Philadelphia, Pa.—Bound Bibles and other books. T 73. 306

86 Dick & Fitzgerald, New York, N. Y.—Dick's Encyclopedia, books of popular information, etc. T 77. 306

87 The Centennial Guide Book Co. (limited), Philadelphia, Pa.—Visitors' Guide to the Centennial Exhibition and Philadelphia. H 72 *and* N 5. 306

88 American Baptist Publication Society, Philadelphia, Pa.—Books and periodicals. T 76. 306

89 Allen, Lane & Scott & Jas. W. Lauderbach, publishers, Philadelphia, Pa.—An elegant illustrated quarto, entitled "A Century After;" picturesque glimpses of Philadelphia and Pennsylvania, including Fairmount, the Wissahickon, the cities and landscapes of the State, and the Centennial Buildings. T 73 *to* 78. 306

90 Gill, Wm. F., & Co., Boston, Mass.—Monument device of books, in the form of Bunker Hill monument. T 74. 306

Institutions and Organizations.

91 Burleigh, J. B., Philadelphia, Pa.—Indian relics, illustrating the pre-historic age of the western continent. T 57. 312

91*a* Allen, Geo. W., St. Louis, Mo.—Archæological specimens from the ancient mounds of Missouri. T 63. 312

91*b* Sloan, W. B., Port Clinton, O.—Flint and stone implements and ornaments. V 63. 312

91*c* Read, A. N., Norwalk, O.—Stone implements. V 63. 312

91*d* Cutler, C., Hudson, O.—Flint, stone, and iron implements. V 63. 312

91*e* Kelley, Gustavus, Kelley's Island, O.—Flint and stone implements and ornaments. V 63. 312

91*f* Paul, Daniel, Martinsburg, O.—Flint and stone implements. V 63. 312

91*g* Fireland Historical Society, Norwalk, O.—Stone and flint implements and ornaments, pottery, etc. V 63. 312

91*h* Agricultural College of Ohio, Columbus, O.—Copper and stone implements, etc. V 63. 312

91*i* Archæological Society of Ohio, Columbus, O.—Map showing the location of ancient earthworks in the State. V 63. 312

91*j* Western Reserve College, Hudson, O.—Copper implements, stone pipes, hammers, etc. V 63. 312

91*k* Force, W. F., Cincinnati, O.—Copper implements of the mound builders. V 63. 312

91*l* Neff, Peter, Gambier, O.—Implements of stone and flint. V 63. 312

91*m* Buchtel College, Akron, O.—Stone and flint ornaments and implements. V 61. 312

91*n* Mt. Union College, Alliance, O.—Flint implements and weapons, pestles and mortars, slingstones, pipes. V 61. 312

91*o* Matson, John S. B., Shelby, O.—Mound implements, ornaments, etc. V 63. 312

91*p* Whittlesey, Charles, O.—Archæological collection. V 61. 312

92 Gabriel, Peter J., Perry, Me.—Implements, ornaments, and utensils used by the Passamaquoddy Indians; weapons, costumes, house implements, and books. P. 65. 312

92*a* Kenney, T. Mc., Portsmouth, O.—Stone relics, hammers, rollers, pestles, chisels, plates, pendants and other ornaments. V 63. 312

92*b* Henderson, J. P., Newville, O.—Stone, flint, and copper implements and ornaments. V 63. 312

92*c* Judge, J. F., Cincinnati, O.—Stone and flint implements and ornaments. V 63. 312

92*d* Morgan, M. C., Urbana, O.—Stone and flint implements. V 63. 312

92*e* Bartlett, C. L., Ravenna, O.—Stone and flint implements and ornaments. V 63. 312

92*f* Munday, Gilbert, Montezuma, O.—Stone implements. V 63. 312

92*g* Ashtabula County Historical Society, Ashtabula, O.—Stone and flint implements and ornaments. V 63. 312

92*h* Peet, S. D., Ashtabula, O.—Flint and stone implements and ornaments. V 63. 312

92*i* Beard, John, Attica, O.—Flint and stone implements and ornaments. V 63. 312

92*j* Bennett, H., Putnam, O.—Stone and flint implements and ornaments. V 63. 312

92*k* Hawkins, A. W., Twinsburg, O.—Stone and flint implements and ornaments. V 63. 312

92*l* Schroyer, J. C., Cincinnati, O.—Stone and flint implements and ornaments. V 63. 312

92*m* Byrnes, L. M., Cincinnati, O.—Stone and flint implements and ornaments. V 63. 312

92*n* Cleneay, Thomas, Cincinnati, O.—Stone implements and pottery. V 63. 312

92*o* Giauque, Florien, Cincinnati, O.—Flint, stone, shell, and bone implements and ornaments. V 63. 312

92*p* Mercer, R. W., Cincinnati, O.—Pottery from mounds of Ohio. V 63. 312

92*q* Hill, H. H., Cincinnati, O.—Flint, stone, bone, and copper implements and ornaments, pottery, etc. V 63. 312

92*r* Hosea, L. M., Cincinnati, O.—Flint and stone implements and ornaments, pottery, etc. V 63. 312

92*s* Simerell, C.B., Cincinnati, O.—Flint, stone, shell, and bone implements and ornaments. V 63. 312

92*t* Hawley, R. E., Cleveland, O.—Flint and stone implements and ornaments. V 63. 312

92*u* Freeman, L. R., Cincinnati, O.—Pottery, stone, and flint implements and ornaments. V 63. 312

92*v* Johnson, J. M., Mt. Union, O.—Stone implements. V 63. 312

92*w* Larkins, John F., West Mansfield, O.—Stone implements. V 63. 312

92*x* Smucker, Isaac, Newark, O.—Flint and stone implements and ornaments, casts and photographs. V 63. 312

92*y* Read, M. C., Hudson, O.—Flint and stone implements and ornaments, casts and photographs. V 63. 312

92*z* Chase, G. W., Newark, O.—Photographs and drawings of mounds, stone images and implements. V 63. 312

92*a b* Zane, Carbon, Mifflin, O.—Stone and flint implements. V 63. 312

93 State Archæological Association of Ohio.—Relics of pre-historic races and Indians of Ohio. V 63. 312

93*a* Dickeson, M. W., Philadelphia, Pa.—Mound relics. T 68. 312

93*b* Western Reserve Historical Society, Cleveland, O.—Relics of Indians and pre-historic races of Ohio. V 61. 312

93*c* Anderson, Marshall, Circleville, O.—Flint and stone implements, etc. V 63. 312

Scientific and Philosophical Instruments and Methods.

94 Kuebler, Wm., Philadelphia, Pa.—Surveyors' and engineers' instruments; mining transit. N 60. 320

94*a* Wilder, Charles, Peterborough, N. H.—Thermometers and portable barometers. N 78. 320

95 Kuhnel, Paul, New York, N. Y.—Terrestrial and celestial planisphere globe. N 56. 320

96 Ritchie, E. S., & Sons, Boston, Mass.—Philosophical and nautical instruments. N 57. 320

96*a* Blanck, G., New York, N. Y.—Parallel rule. N 54. 320

97 Keuffel & Esser, New York, N. Y.—Drawing instruments, models, and machinery for scientific schools. N 57. 320

98 Rogers, Wm. A., Assistant, Harvard College Observatory, Cambridge, Mass.—Automatic machines for ruling microscopic lines on glass or metals; for grinding and polishing ruling diamonds; for polishing parallel surfaces on glass; for dividing any unit into equal parts; microscope, specimens of diamond and etched rulings on glass, and water motor. N 55. 320

98*a* Allen, Horatio, South Orange, N.J.—Astronomical instruments. P 78. 320

99 Clum, H. A., Elmira, New York, N. Y.—Aëllograph or storm writer for predetermining storms. N 60. 320

99*a* Leete, Isaac P., Branford, Conn.—Atomizer and vaporizer. N 70. 320

100 Muller's Sons, Nicholas, New York, N. Y.—Thermometers. P 76. 320

101 Benjamin, E. B., New York, N. Y.—Chemical glass and porcelain wares; rare chemical and assaying implements; tools for blowpiping; students' setts; Geissler tubes and physical apparatus. N 57. 320

103 Gurley, W. & L. E., Troy, N. Y.—Civil engineers', land surveyors', and mining engineers' instruments and apparatus. N 56. 320

104 Lowe, N. M., Boston, Mass.—Terrestrial orrery, graphic hygrometer. N 55. 320

105 Prentice, James, New York, N.Y.—Engineers' and surveyors' instruments. N 58. 320

106 Heller & Brightley, Philadelphia, Pa.—Surveying, engineering, mathematical, optical, and astronomical instruments. N 59. 320

107 Alteneder, Theodore, Philadelphia, Pa.—Joint draughting instruments, protractors, triangles, and drawing scales. N 58. 320

108 Fauth, C., & Co., Washington, D. C.—Astronomic, geodetic, and scientific instruments; equatorial-universal alt-azimuth, theodolites, levels, etc. N 57. 320

109 Tarr, Henry S., & Son, Philadelphia, Pa.—Dry level; plumb and level combined. N 57. 320

110 Bahmann Bros., New York, N.Y.—Hydrometers, thermometers, and chemical glass instruments. N 58. 320

111 Schlotterbeck, A. S., Portland, Me.—Thermometer. N 58. 320

112 Tagliabue, Giuseppe, New York, N. Y.—Recording barometer, thermometer, and rain gauge; pyrometers, milk tester, hydrometers. N 58. 320

113 Kroedel, Franz, New York, N.Y.—Chorometer for surveying. (*West Gallery.*) 320

114 Knox & Shain, Philadelphia, Pa.—N 57.
- *a* Engineering instruments. 320
- *b* Telegraph instruments. 326

115 Young's, Wm. J., Sons, Philadelphia, Pa.—N 59.
- *a* Astronomical circle, equatorial sextant, transits. 320
- *b* Telescopes. 324

116 Riggs & Bro., Philadelphia, Pa.—N 58.
- *a* Ships' binnacles and logs. 320
- *b* Watchmen's clocks, balance springs for chronometers and watches. 323

117 Queen, Jas. W., & Co., Philadelphia, Pa.—N 55.
- *a* Mathematical and drawing instruments and accessories for students and professional men. 320
- *b* Microscopes. 324

Scientific and Philosophical Instruments.

118 Bliss, John, & Co., 110 Wall street, New York, N. Y.—N 52.
a Ships' logs, register fastened to taffrail; rotator attached and towed astern. 320
b Marine chronometers, entirely American manufacture, with auxiliary compensation; watchmakers' portable transit instruments, for obtaining correct time. 323
tern. 320

119 Deakin, Robt. T., Philadelphia, Pa.—N 58.
a Philosophical instruments, mandrel-drawn tubes. 320
b Green-house syringes; portable fire engine and garden pump. 720

120 Watts & Co., Baltimore, Md.—N 61.
a Scientific apparatus. 320
b Electrical apparatus. 325
c Telegraphic apparatus. 326

121 Stewart, A., Philadelphia, Pa.— Fare controller and indicator; mechanical instruments. N 56. 321

121*a* Pottin Register Manufacturing Co., Philadelphia, Pa.—Registers for cars, ferries, billiards, and money drawers. P 57. 321

122 Darling, Brown, & Sharpe, Provi- dence, R. I.—Rules, try squares, wire gauges, and tools for accurate measurements. P 70. 322

123 Eddy, Geo. M., & Co., Brooklyn, N. Y.—Measuring tapes of cotton, linen, and steel. N 57. 322

124 Mains Manufacturing Co., New York, N. Y.—Petroleum tester. N 65. 322

125 Weaver, Henry M., Mansfield, O.—Automatic balance scales. N 56. 322

126 Juvet, L. P., Glen's Falls, N. Y.— Time globe. N 55. 323

127 Tiffany & Co., New York, N. Y.— Watches. N 41. 323

127*a* Hietel Bros., Philadelphia, Pa.—Spring lever for watch escapement. N 58. 323

128 Elgin National Watch Co., Elgin, Ill.—Watch movements and materials. P 67. 323

128*a* Galena Oil Works (limited), Franklin, Pa.—Oil well clock. P 47. 323

129 Seth Thomas Clock Co., Thom- aston, Conn.—Clocks. N 65. 323

130 Hagstoz & Thorpe, Philadel- phia, Pa.—Stiffened gold watch cases. P 43. 323

131 American Watch Co., Waltham, Mass.—Watches and watch movements, gold and silver watch cases, watch materials. P 67. 323

132 Mehr, Geo., 1218 Hutchinson street, Philadelphia, Pa.—Patent sun dials made of marble, showing time of day, and distance of nineteen cities from Philadelphia. (*Outside.*) 323

134 Ithaca Calendar Clock Co., Ithaca, N. Y.—Perpetual calendar clock. N 66. 323

135 Teske, Charles, Saratoga Springs, N. Y.—Watch regulator. N 56. 323

136 Ansonia Brass & Copper Co., Ansonia, Conn.—Brass and nickel movement clocks. N 57. 323

137 Spellier, Louis H., Doylestown, Pa.—Regulator, with new mode of hanging the pendulum, and anchor pin escapement. N 55. 323

138 Empire City Watch Co., Jersey City, N. J.—Watches, watch movements, and watch materials. N 55. 323

139 Fasoldt, Charles, Albany, N. Y. —Astronomical tower clock. N 56. 323

140 Elson, Julius, Boston, Mass.— Safety attachments and regulators for watches. N 56. 323

141 Lapp, Ferd., Detroit, Mich.— Carved black walnut clock case. N 56. 323

142 Fortenbach & Sons, Carlstadt, N. J.—Silver watch cases. N 55. 323

143 Paulus, E., Philadelphia, Pa.— Watches and clocks. N 55. 323

144 Hummel, Alois, Baltimore, Md. —Musical clock. N 66. 323

145 Robbins, Clark & Biddle, Phila- delphia, Pa.—Watches, clocks. N 43. 323

146 Gropengiesser, Jno. L., Philadel- phia, Pa:—Astronomical clock. N 56. 323

148 E. N. Welch Manufacturing Co., Forestville, Conn.—Clocks. N 65. 323

149 New Haven Clock Co., New Haven, Conn.—Clocks. N 65. 323

150 Imhauser & Co., New York, N. Y.—Watchman's time detector. This watch clock, which is fastened at the watchman's beat, is supplied with twelve keys. In making his rounds, the watchman inserts the keys in the watch, which will perfectly show his movements. N 56. 323

151 Bacon, B. H., Philadelphia, Pa.— Lunar clock. N 56. 323

152 Mitchell, Vance, & Co., New York, N. Y.—Clocks. N 49. 323

153 Pequignot, C. & A., Philadelphia, Pa.—Watches and watch cases. N 63. 323

154 Hahl, A., & Co., Baltimore, Md. —Electric clocks, bells, indicators, burglar alarms, tower clocks. N 63. 323

155 Wheeler, Marshall, Big Rapids, Mich.—Solar chronometer. N 52. 323

156 Schenck, John H., New York, N. Y.—Illuminated clock, "phantasmagoria." N 66. 323

157 Hill, J. W., Waterville, Kansas.— Clock that will run 100 years without winding, with a new escapement. With this escapement clocks can be made that will run the longest time, and with least machinery, and be perfectly accurate. (*Kansas Building.*) 323

158 Wilson, T. A., & Co., Reading, Pa.—Steel spectacle and eyeglass frames; lenses for optical purposes. N 58. 324

158*a* Black, L., & Co., Detroit, Mich.— Spectacles and eye glasses. N 64. 324

159 Zentmayer, Joseph, Philadelphia, Pa.—Microscopes and accessories. N 58. 324

159*a* Beatty, George D., Baltimore, Md. —Microscopical slides, showing vegetable tissue. T 50. 324

160 Bausch & Lomb Optical Co., Rochester, N. Y.—Optical instruments, lenses, etc. N 55. 324

161 Wales, W., Fort Lee, N. J.—Micro- scope object glasses, with back for photographing; photomicrographs. N 58. 324

For location of objects, indicated by letter and figure, see Key to Notation, p. 25; ground plan, p. 26.

Scientific and Philosophical Instruments.

162 Weiskopf, E., New York, N. Y.—Lenses for solar printing, lenses for magic lanterns, lenses and laryngoscopes and ophthalmoscopes; mirrors for eye, ear, and throat; instruments for dentists, and microscopes. N 57. 324

163 Spencer Optical Manufacturing Co., New York, N. Y.—Optical lenses, spectacles, and eyeglasses. N 59. 324

164 Edgerton, N. H., Philadelphia, Pa.—Philosophical instruments, stereopticons and slides; self-condensing gas cylinders. N 58. 324

165 Diamond, J., Pittsburg, Pa.—Spectacles and eyeglasses; Russian pebbles. N 56. 324

165*a* Miller Bros., New York, N. Y.—Microscope and specimens. P 47. 324

166 Walmsley, W. H., Philadelphia, Pa.—Microscopic preparations. N 55. 324

167 American Optical Co., Southbridge, Mass.—Spectacles and eyeglasses. N 57. 324

168 Yale Lock Manufacturing Co., Stamford, Conn.—Anodes for nickel-plating. P 72. 325

168*a* Pulvermacher Galvanic Co., Cincinnati, O.—Electro-galvanic appliances, etc., for medical purposes. N 55. 325

169 Bryan, Jas. C., Philadelphia, Pa.—Magnetic and magneto-electrical lightning rods. N 63. 325

169*a* Gardiner, Samuel, Washington, D. C.—Electrical gas lighting apparatus. T 64. 325

170 Reyburn, Hunter, & Co., Philadelphia, Pa.—Lightning rods, points, and fixtures. N 62. 325

170*a* Garratt, Alfred, Boston, Mass.—Electric disc. N 55. 325

171 Kidder, Jerome, New York, N. Y.—Electro-medical apparatus. A gold medal of progress was awarded to Dr. Kidder at the fair of the American Institute, in the fall of 1875, for the "best electro-magnetic machine." For illustrated catalogue, address Dr. Jerome Kidder, northeast corner of 17th street and 4th avenue, New York. N 56. 325

172 Patrick & Carter, Philadelphia, Pa.—Telegraph sounders, learners' apparatus, hotel annunciators, Philadelphia relay, electric bells, and burglar alarms. N 64. 325

173 Fleming & Talbot, Philadelphia, Pa.—Electrical instruments and batteries for physicians and surgeons. N 63. 325

175 Cornish, Thos. E., Philadelphia, Pa.—Electric burglar alarm, annunciators, bell calls, clocks, batteries, gongs, wire, etc. N 64. 325

177 Munson, David, Indianapolis, Ind.—Lightning rods. N 59. 325

178 Western Electric Manufacturing Co., Chicago, Ill.—Electrical apparatus, electro-physical, medical, and harmonic instruments, annunciators, railway signals, etc. N 60. 325

179 Laflin & Rand Powder Co., New York, N. Y.—Electrical blasting apparatus. H. Julius Smith's patents. Novel and perfect adaptation. N 62. 325

180 Brittain, R. J., Hedenberg Works, Newark, N. J.—Electro-medical instruments. N 65. 325

181 Paoli Belt Co., New York, N. Y—Electro-voltaic chain belt. N 61. 325

181*a* Buckman, Ira, Brooklyn, N. Y.—Annunciators. N 68. 325

182 Galvano-Faradic Manufacturing Co., New York, N. Y.—Electrical instruments for medicinal use. N 57. 325

183 Launert & Decker, Cleveland, O.—N 60.
a Indicating annunciators and burglar alarm. 325
b Alphabetical telegraph instruments. 326

183*a* Finger, Hare, & Co., Boston, Mass.—Electro-magnetic annunciator. N 78. 325

184 McCormick, James, Philadelphia, Pa.—Burglar alarm and door fastener. H 72. 325

185 National Fire Alarm Telegraph Co., Richmond, Ind.—System of fire alarm and police telegraph. N 65. 326

186 Holmes Burglar Alarm Telegraph Co., New York, N. Y.—Bank vault and safe protector, burglar alarm telegraph, electric hotel and house annunciator, electrical bells. N 64. 326

187 Brooks, David, Philadelphia, Pa.—Underground cables for telegraph lines. (*Nave.*) 326

188 Edison, Thos. A., Newark, N. J.—Roman letter, etheric, domestic, automatic, and quadruplex telegraph; electromotograph, doubler, and electric pen. N 63. 326

188*a* Cleveland Lightning Rod Co., Garrettsville, O.—Lightning rods, vanes, and ornaments. (*Ohio Building.*) 326

189 Dowden, Geo. A., Newark, N. J.—Burglar alarm and automatic annunciator. N 65. 326

189*a* American District Telegraph Co., Philadelphia, Pa.—Telegraph signal boxes. (*Nave.*) 326

190 Henry, D. F., Chief Engineer Water Works, Detroit, Mich.—Model of subaqueous tunnel; telegraphic current meter; flexible jointed water pipe. P 65. 326

190*a* Gamewell, John N., New York, N. Y.—Fire alarm telegraph signal boxes. (*Nave.*) 326

191 Rice, Jas. D., Philadelphia, Pa.—Lightning rods and points. N 66. 326

191*a* Gray & Barton Western Electric Telegraph Co., Chicago, Ill.—Printing telegraph instrument. (*Nave.*) 326

192 Atlantic & Pacific Telegraph Co., Philadelphia, Pa.—Automatic and duplex telegraphic apparatus. (*Nave.*) 326

193 Phillips, Eugene F., Providence, R. I.—Patent flexible gas-tight tubing; patent insulated telegraph wires. N 51. 326

193*a* Philips, W. J., Philadelphia, Pa.—Printing telegraph instruments. (*Nave.*) 326

194 Vigneron, Charles, Providence, R. I.—Piano insulator. N 58. 326

194*a* Lockwood, Brooks, & Co., Boston, Mass.—Computing telegraph. P 47. 326

195 Welch & Andres, Boston, Mass.—Magneto-printing and dial telegraph instruments; watchman's time recorders. N 61. 326

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Scientific, Philosophical, Musical Instruments.

195*a* Gray, Elisha, Chicago, Ill.—Electro-harmonic telegraph. (*Nave.*) 326

196 Watkins, Wm. B., New York, N. Y.—Automatic fire and burglar telegraph and fire extinguisher; electric thermostats, fire signal boxes, duplex telegraph. N 59. 326

196*a* Bell, A. Graham, Boston, Mass.—Electro-harmonic telegraph. N 64. 326

197 Western Union Telegraph Co., New York, N. Y.—Telegraphic apparatus. N 63. 326

197*a* Frost & Hanline, Philadelphia, Pa.—Automatic thermostat for fire alarm telegraph. (*Nave.*) 326

198 Day, Austin G., office, 120 Broadway, New York, N. Y.—Kerite insulated telegraph wire and cables; Kerite battery cups; electrical battery. Manufacturer of Kerite insulated telegraph wire and cables. Do not require protection from long exposure in hot climates in the air, earth, or water, or from the corrosive action of acids, alkalies, oils, or gases. Can be kept on storage for a long term of years without deterioration. N 63. 326

199 White, Samuel S., Philadelphia, Pa.—Electro-harmonic telegraph. N 65. 326

200 Coston, Wm. F., Philadelphia, Pa.—Application of Coston night signal to the International and N. Y. Yacht Club codes. H 68. 326

201 Colton, Martha J., Philadelphia, Pa.—Telegraphic night signal for use on land and sea. H 68. 326

202 Hale, B. S., & Co., Lawrence, Mass.—Electric wire. N 75. 326

203 Otto, John William, St. Louis, Mo.—Piano. P 60. 327

203*a* Siebenhüner, Anton, New York, N. Y.—Violins and bows. P 64. 327

204 Pfaff, John, Philadelphia, Pa.—Clarionets, ivory flute, tail piece for violin, tuning pipe. P 66. 327

204*a* Greiner, Geo., Philadelphia, Pa.—Piano. N 64. 327

205 Martin, C. F., & Co., Nazareth, Pa.—Guitars. P 59. 327

206 Pratt, Read, & Co., Deep River, Conn.—Ivory combs, piano forte and organ keys, ivory veneers, and other ivory goods. P 62. 327

206*a* Monroe Organ Reed Co., Worcester, Mass.—Organ reeds and organ material. P 59. 327

207 Burdett Organ Co., Erie, Pa.—Burdett organs. P 64. 327

207*a* Boulanger, Louis, St. Louis, Mo.—Violin. T 60. 327

208 Meyer, Conrad, & Sons, Philadelphia, Pa.—Square piano fortes, original iron-plate frame piano, Conrad Meyer inventor, 1833. P 65. 327

209 Schomacker Piano Co., Philadelphia, Pa.—Square and concert grand, square, and upright pianos. N 67. 327

210 Hallet, Davis, & Co., Boston, Mass.—Orchestral, concert, and parlor grand, upright, and square grand pianos. N 61. 327

211 Miller, Henry F., Boston, Mass.—Piano fortes. N 65. 327

212 Zimmermann, C. F., Philadelphia, Pa.—Musical instruments. N 63. 327

213 Albert, Chas. F., Philadelphia, Pa—String quartet, violins, chin and cella rests, wrapped strings, guitars, a Stradivarius and a Guarnerius violin. P 62. 327

214 Mason & Hamlin Organ Co., Boston, Mass.—Cabinet organs. P 66. 327

215 Albert, John, Philadelphia, Pa.—String quintet, violins made by Albert's machine. P 62. 327

216 Seefeldt, Wm. F., Philadelphia, Pa.—Brass and German silver musical instruments. P 59. 327

217 Ingalls, W. G., & Co., Worcester, Mass.—Reeds, reed boards, and valves for organs. P 58. 327

218 Estey, J., & Co., Brattleboro', Vt.—Organs. Call special attention to,—1st, elegance and solidity of their structure; 2d, durability of manufacture throughout; 3d, richness, sweetness, and pipe-like quality of tone; 4th, number of organs manufactured and sold; 5th, reputation throughout the world, highest endorsement by such artists as Rubinstein, Wilhelmj, Abt, Lucca, Joachim, Freyer, Kucken, Czerny, Ole Bull, Saint-Saëns, Tinel, and many others. P 63. 327

219 Dolge, Alfred, New York, N. Y.—Piano forte and polishing felts; spruce sounding-board material. P 66. 327

220 Faas, Anthony, Philadelphia, Pa.—Pianos. P 64. 327

221 Waters, Horace, & Sons, New York, N. Y.—Organs. P 64. 327

222 Roosevelt, H. F., New York, N. Y.—Organs, hydraulic engines, and other blowing apparatus. (*North gallery.*) 327

223 Calender, Vaupel, & Co., New York, N. Y.—Piano fortes. P 64. 327

224 Hazleton Bros., New York, N. Y.—Grand, cabinet grand, upright, and square pianos. N 64. 327

224*a* Eisel, M., St. Louis, Mo.—Piano movement. V 60. 327

225 Albrecht & Co., 610 Arch street, Philadelphia, Pa. (Charles Albrecht, Frederick Riekes, Edmund Wolsieffer)—Piano manufacturers of first-class, grand, square, and upright pianos. Prices low, for cash, and five years' guarantee. P 68. 327

225*a* Hamlin, Emmons, Boston, Mass.—Violins. T 66. 327

226 Woods, Geo., & Co., Cambridgeport, Mass.—Organs. P 61. 327

227 Gemunder, Geo., Astoria, N. Y.—Stradivarius quartet, one Stradivarius, and one Guarnerius violin. P 59. 327

228 Dürner, Chas. F., Quakertown, Pa.—Church organ. P 61. 327

229 Shoninger, B., Organ Co., New Haven, Conn.—Reed organs. Manufacturers of reed organs for churches and families, with all improvements, embracing a stool, a chime of bells, which make the instrument very complete. N 68. 327

230 Steinway & Sons, New York, N. Y.—Grand, upright, and square piano fortes. P 66. 327

231 Decker Bros., New York, N. Y.—Concert and parlor grand, upright, and square piano fortes. P 67. 327

Musical Instruments.

232 Lehnert, Henry G., Philadelphia, Pa.—Improved brass instruments, for bands and orchestras. P 64. 327

233 Goldsmith, Jonas G., New York, N. Y.—Square piano forte. P 64. 327

234 Bacon & Karr, New York, N. Y.—Square and upright pianos. P 62. 327

235 Neff, James, Philadelphia, Pa.—Quartette of musical stringed instruments. P 64. 327

236 United Piano Makers, Brooklyn, N. Y.—Grand, upright, and square pianos. P 64. 327

237 Hoeppe, C. J., Philadelphia, Pa.—Grand, square, and upright pianos, and parlor organs. P 64. 327

238 Manhattan Piano Forte Co., New York, N. Y.—Piano fortes. This company, composed of practical mechanics, was established 1863. Their pianos are admired by every one for their sweet and powerful tone, as well as the pleasing touch they possess. P 63. 327

239 Emerson Piano Co., Boston, Mass.—Upright and square pianos. P 63. 327

240 Oldendorf, Henry, New York.—N. Y.—Bass and snare drums. P 59. 327

241 Quaker City Organ Co., Philadelphia, Pa.—Cabinet organs. P 63. 327

242 Newman, Edward G., New York, N. Y.—Square grand pianos. N 63. 327

243 Peloubet, Pelton, & Co., New York, N. Y.—Reed organs. The standard organs here shown are exhibited as specimens of the daily work of the manufacturers. P 65. 327

244 Ivers, W. H., Dedham, Mass.—Piano. P 65. 327

244*a* Jennison, Wm. A., Camden, Miss.—Violin. P 62. 327

245 Nicholls, Reuben, Philadelphia, Pa.—Church organ, with pneumatic action. Composition, balance swell, crescendo and diminuendo pedals, never beforeintroduced. P 66. 327

246 Lehnert, Carl, Boston, Mass.—Cymbals and gongs, Turkish and Chinese combination of metals. P 62. 327

247 Ohio Valley Piano Co., Ripley, Ohio.—Pianos. P 63. 327

248 Cummins, Henry, New York, N. Y.—Violin. P 62. 327

249 Robbins & Appleton, New York, N. Y.—Gold and silver watch cases. P 67. 327

251 Hinds & Sons, Newark, N. J.—Piano fortes. N 63. 327

252 Wing, F. L., & Hill, F. M., New York, N. Y.—Dolce piano forte, without strings; organ. T 59. 327

253 McFadden, George, Syracuse, N. Y.—Cornets and trombones. P 63. 327

254 Moeller, A., Hartford, Conn.—Upright piano. P 63. 327

255 Simpson & Co., New York, N. Y.—Square and upright piano fortes. P 64. 327

256 Gemunder, August, New York, N. Y.—Four-stringed double bass. P 59. 327

257 Sohmer & Co., New York, N. Y.—Upright and square piano fortes. P 62. 327

258 McDonald, Jas., Williamsport, Pa.—Square grand piano fortes. P 63. 327

259 Dobson, Mrs. Louisa, New York, N. Y.—Banjo. P 65. 327

260 Haines Bros., New York, N. Y.—Grand, square, and upright piano fortes. P 62. 327

261 Steck, George, & Co., New York, N. Y.—Grand, square, and upright pianos. N 60. 327

262 Hardman, Hugh, New York, N. Y.—Grand, square, and upright piano fortes. N 62. 327

263 Weber, Albert, New York, N. Y.—Concert and parlor grand, upright, and square pianos. N 66. 327

264 Wildman, L. P., Danbury, Conn.—Violins. P 59. 327

265 United States Piano Co., New York, N. Y.—Piano forte. P 62. 327

266 Knabe, Wm., & Co., Baltimore, Md.—Grand, square, and upright pianos; a harpsichord made by Tschudi & Broadwood for Chas. Carroll of Carrollton. P 60. 327

267 Berry, James B., Boston, Mass.—Square and grand piano fortes. P 62. 327

268 Stieff, Chas. M., Baltimore, Md.—Grand, square, and upright pianos. N 64. 327

269 New Haven Organ Co., New Haven, Conn.—Organs. P 64. 327

270 Hook, E. & G. G., & Hastings, Boston, Mass.—Grand concert, chapel, and church organs. (*East Gallery.*) 327

271 Knauff, Theodore O., Philadelphia, Pa.—Mecnanical and pipe organs. (*Outside.*) 327

272 Hinzen & Rosen, Louisville, Ky.—Piano. P 64. 327

273 Wessell, Nickel & Gross, New York, N. Y.—Piano. P 64. 327

274 Perry, J. R., Wilkesbarre, Pa.—Organs; testing and toning box for reed organs. P 64. 327

275 Rogers Upright Piano Co., Boston, Mass.—Upright pianos. The mechanical principles employed secure claims for this instrument of the greatest utility and practical importance to musicians and amateurs. P 65. 327

276 Perrot, Auguste, Philadelphia, Pa.—Tonognome, a portable melodeon. P 59. 327

277 Watson, J. Jay, New York, N. Y.—Violin and violin strings. P 59. 327.

278 Chickering & Sons, Boston, Mass.—Piano fortes. P 61. 327

279 Wellenberger, Jos., & Ganter, New York, N. Y.—Orchestrion or self-acting organ. P 65. 327

280 Mortimer, John R., New York, N. Y.—Pneumatic exhaust palate for organs. P 63. 327

281 Behning & Diehl, New York, N. Y.—Grand square pianos. N 63. 327

282 Benham Organ Co., Indianapolis, Ind.—Cabinet organs. T 62. 327

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

283 Mathushek Piano Manufacturing Co., New Haven, Conn.—Pianos. P 59. 327

284 Smith, B. N., & Co., New York, N. Y.—Carved piano legs and lyres. P 59. 327

285 Secor, Jerome B., Bridgeport, Conn.—Automaton singing birds in cages and vases. T 48. 327

286 Kranich & Bach, New York, N. Y.—Grand, upright, and square piano fortes. N 63. 327

287 Clough & Warren Organ Co., Detroit, Mich.—Parlor organ. P 63. 327

288 Missenharter, Chas., New York, N. Y.—Excelsior musical instruments. P 64. 327

289 Kompff, Ph., New York, N. Y.—Military drums, banjos, and tambourines. P 62. 327

290 Lighte & Ernst, New York, N. Y.—Grand square piano fortes. P 65. 327

291 Willis, Aug. L., Philadelphia, Pa.—Octave coupler for piano fortes. H 71. 327

292 Browne & Buskewell, New York, N. Y.—Grand concert double action harp and music desk. P 63. 327

293 Conn & Dupont, Elkhart, Ind.—Musical instruments for bands; improved mouthpieces for band instruments. P 61. 327

294 Boston Musical Instrument Manufactory, Boston, Mass.—Brass band musical instruments. P 64. 327

295 Schindler, C. A., New York, N. Y.—Piano stools. P 63. 327

296 Taylor & Farley Organ Co., Worcester, Mass.—Cabinet and church reed organs. P 58. 327

Engineering, Architecture, Charts, Maps, and Graphic Representations.

297 Lowthorp, Francis C., Trenton, N. J.—Photographs of iron bridges erected, plans of wrought iron bridge and turn tables. T 67. 330

297*a* Barnum, Richardson, & Co., Lime Rock, Conn.—Drawings relating to various works. (*West Gallery.*) 330

298 American Bridge Co., Chicago, Ill.—Model of rigid suspension bridge, details of construction, photographs and drawings. T 67. 330

298*a* Carroll, Francis, New Orleans, La.—Model of automatic damper for gas furnaces. (*West Gallery.*) 330

299 Clarke, Reeves, & Co., Phœnixville Bridge Works, Philadelphia, Pa.—Photographs and models of bridges, viaducts, and other iron structures actually executed. (*West Gallery.*) 330

299*a* Philadelphia & Reading R.R. Co., Philadelphia, Pa.—Bridge models, etc. V 53. 330

300 Pettit, Henry, & Wilson, Jos. M., Engineers and Architects, Philadelphia, Pa.—The Main Exhibition building, Machinery Hall and adjacent boiler houses for the International Exhibition, 1876. (*In Park.*) 330

300*a* Thomas Iron Co., Hokendaqua, Pa.—Drawings relating to iron works. (*West Gallery.*) 330

301 King Iron Bridge & Manufacturing Co., Cleveland, O.—Wrought iron highway bridge between Horticultural Hall and Art Gallery. 330

301*a* North Chicago Rolling Mill Co., Chicago, Ill.—Drawings relating to various works. (*West Gallery.*) 330

302 Pearsons, G. W., Ogdensburg, N. Y.—Model of standpipe and turbine wheel. (*West Gallery.*) 330

303 Pettit, Henry, Philadelphia, Pa.—Bridges and bridge construction. (*West Gallery.*) 330

304 Wilson, Jos. M., Philadelphia, Pa.—Bridge and bridge construction. (*West Gallery.*) 330

305 Centennial Commission of the American Society of Civil Engineers of the United States.—Papers, drawings, photographs, and models of engineering in America. (*West Gallery.*) 330

306 Chanute, Octave, New York, N. Y.—Engineering exhibits relating to bridges and bridge construction. (*West Gallery.*) 330

306*a* Morrison, E. H., Boonton, N. J.—Model and drawings relating to various works. (*West Gallery.*) 330

307 Croes, J. James R., Yonkers, N. Y.—Engineering exhibits relating to water works. (*West Gallery.*) 330

307*a* Morris, R. C., Nashville, Tenn.—Plans of early and late bridges in the Southern States. (*West Gallery.*) 330

308 Herring, Rudolph, Philadelphia, Pa.—Plans of bridges, with photographs showing progress; section of sewers of Philadelphia. (*West Gallery.*) 330

308*a* McDonald, Charles, New York, N. Y.—Drawings and photographs of various iron bridges. (*West Gallery.*) 330

309 Chester, Stephen, New York, N. Y.—Exhibit relating to electrical engineering. (*West Gallery.*) 330

309*a* Pearse, J. B., Philadelphia, Pa.—Drawings relating to various works. (*West Gallery.*) 330

310 Linville, J. H., Philadelphia, Pa.—Bridges and bridge construction. (*West Gallery.*) 330

310*a* Phœnix Iron Co., Philadelphia, Pa.—Drawings relating to various works. (*West Gallery.*) 330

311 Clark, Reeves, & Co., Philadelphia, Pa.—Bridges and bridge construction. (*West Gallery.*) 330

311*a* Johnson, J., La Salle, Ill.—Drawings relating to various works. (*West Gallery.*) 330

312 Rockwood, Geo. F., New York, N. Y.—Photographs showing successive stages of engineering construction. (*West Gallery.*) 330

312*a* Fowler, Charles E., New Haven, Conn.—Plans, sections, and details of the sewerage and drainage system of New Haven and other public works. (*West Gallery.*) 330

313 Crezier, D. W. C., Chicago, Ill.—Model of hydrant and stopcock. (*West Gallery.*) 330

313*a* Bethlehem Iron Co., Bethlehem, Pa.—Drawings relating to various works. (*West Gallery.*) 330

Engineering Designs.

314 Jervis, John B., Rome, N. Y.—Engineering drawings, relating to construction of canals; Carbondale railroad and Croton aqueduct. (*West Gallery.*) 330

314*a* Severt, Wm. A., Syracuse, N. Y.—Drawings relating to various works. (*West Gallery.*) 330

314*b* Cox, E. T., Indianapolis, Ind.—Drawings relating to various works. (*West Gallery.*) 330

314*c* Dudley, P. H., Cleveland, O.—Drawings relating to various works. (*West Gallery.*) 330

314*d* Drinker, Henry S., Philadelphia, Pa.—Drawings relative to tunnel excavation and timbering. (*West Gallery.*) 330

315 Foster, Wilbur F., Nashville, Tenn.—Model of Howe truss bridge. (*West Gallery.*) 330

316 Armington, James H., Brooklyn, N. Y.—Exhibit relating to gas engineering. (*West Gallery.*) 330

316*a* Smedley, Samuel L., Philadelphia, Pa.—Drawings of Public Works in the City of Philadelphia. (*West Gallery.*) 330

316*b* Davis, E. T. C., Pottsville, Pa.—Drawings and photographs relating to various works. (*West Gallery.*) 330

316*c* Darrach, S. A., East Orange, N. J.—Drawings relating to the Water Works of Philadelphia. N 58. 330

316*d* Canfield, Frederic A., Dover, N. J.—Drawings relating to various works. (*West Gallery.*) 330

316*e* Grant, Wm. A., New York, N. Y.—Topographical map of recent additions to New York City, with proposed street and avenue plans. (*West Gallery.*) 330

317 Thurston, Robert M., Hoboken, N. J.—Exhibit relating to mechanical engineering; detail drawings of machinery, etc., by Robert Fulton. (*West Gallery.*) 330

317*a* Tarr, H. G. H., Orbesonia, Pa.—Stove plates cast in 1763 and 1792. (*West Gallery.*) 330

317*b* Stanley, I. N., Brooklyn, N. Y.—Improved setting of retorts. (*West Gallery.*) 330

318 Ellis, Theo. G., Hartford, Conn.—Engineering exhibit relating to river and harbor improvement. (*West Gallery.*) 330

319 McAlpine, Wm. J., Albany, N. Y.—Engineering exhibits relating to canals and inland navigation. (*West Gallery.*) 330

320 Bowden, J. H., Wilkesbarre, Pa.—Drawings relating to various works. (*West Gallery.*) 330

321 Smith, Wm. Sooy, Maywood, Ill.—Engineering exhibit relating to foundations and masonry. (*West Gallery.*) 330

322 Shedd, J. Herbert, Providence, R. I.—Engineering exhibits relating to sewerage and sanitary purposes. (*West Gallery.*) 330

323 Briggs, Robert, Philadelphia, Pa.—Exhibits of illustrations and diagrams of ventilating fans. (*West Gallery.*) 331

323*a* Thompson, D. M., Providence, R. I.—Pictures of cotton mill with description. (*West Gallery.*) 331

323*b* Union Iron Co., Buffalo, N. Y.—Model relating to iron works. (*West Gallery.*) 331

323*c* Wren, W. C., Brooklyn, N. Y.—Model of gas machinery. (*West Gallery.*) 331

323*d* Witherbee, J. F., Port Henry, N. Y.—Drawings and models relating to iron works. (*West Gallery.*) 331

323*e* Oxford Iron Co., Oxford, N. Y.—Drawings and photographs relating to iron works. (*West Gallery.*) 331

323*f* Smith & Sayre, New York, N. Y.—Drawings of exhauster engine, shafting, and other machinery for gas works. (*West Gallery.*) 331

323*g* Paulding, Kemble, & Co., Cold Spring, N. Y.—Drawings relating to iron works. (*West Gallery.*) 331

323*h* Prindle, F. C., Philadelphia, Pa.—Drawings of dredging machinery, and gunpowder pile driver. (*West Gallery.*) 331

323*i* Patton, J. D., Norristown, Pa.—Drawings of machinery for burning petroleum gas on cars. (*West Gallery.*) 331

323*j* Risdon Iron & Locomotive Works.—Drawings of hydraulic machinery. (*West Gallery.*) 331

323*k* School of Mines of Columbia College, New York, N. Y.—Selected metallurgical drawings. (*West Gallery.*) 331

323*l* Glendon Iron Co., Easton, Pa.—Drawings relating to iron works. (*West Gallery.*) 331

323*m* Cambria Iron Co., Johnstown, Pa.—Drawings relating to iron works. (*West Gallery.*) 331

323*n* Birkenbine, H. P. M., Philadelphia, Pa.—Drawings of combined high and low pressure pumping engine, portfolio of details and drawings. (*West Gallery.*) 331

323*o* Hornig, Julius, Chicago, Ill.—Model of improved method of canal boat propulsion, with track and traction chain. (*West Gallery.*) 331

324 Shinn, Wm. P., Pittsburg, Pa.—Engineering exhibit relating to railroads and rolling stock. (*West Gallery.*) 332

324*a* Nichols, H. K., Pottsville, Pa.—Model of rail splice. (*West Gallery.*) 332

324*b* Bishop, D. E., New York, N. Y.—Models of special rail joint. (*West Gallery.*) 332

324*c* Sandberg, C. P., London, England.—Drawings of standard rail sections. (*West Gallery.*) 332

325 Emery, Chas. E., New York, N. Y.—Drawings of marine engines and boilers; connected arch boiler; compound engine for Phœnix Iron Company. (*West Gallery.*) 334

325*a* Gaujot, E., Philadelphia, Pa.—Geological maps, sections, and pamphlets of the State of Michigan. V 67 *to* 69. 335

326 Hanging Rock Iron Region, Ironton, O.—Geological map of the Ohio portions of the Hanging Rock iron regions. (Presented by Mr. John Campbell.) T 68. 335

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

327 Earnshaw, Henry, Cincinnati, O.—Photographs of parks and cemetery, water works machinery, reservoirs, and drawing of tunnel. (*West Gallery.*) 335

328 Cleveland, H. W. S., Chicago, Ill.—Design (adopted) for improvement of South Park, Chicago. (*West Gallery.*) 335

329 Bowditch, Ernest W., Boston, Mass.—Plans of proposed chain of parks for Boston; a cemetery, and a country estate. (*West Gallery.*) 335

330 Krause, H., New York, N. Y.—Topographical maps. (*West Gallery.*) 335

331 Sibeth, Otto, New York, N. Y.—Construction map New York Central Park. (*West Gallery.*) 335

332 Walling, H. T., Boston, Mass.—Topographical maps and atlases. (*West Gallery.*) 335

333 Bogart, John, New York, N. Y.—Engineering exhibit relating to park work, surveying, and geodesy. (*West Gallery.*) 335

Physical, Social, and Moral Condition of Man.

334 Health Lift Co. of New York, N. Y.—Reactionary lift apparatus. P 62. 340

334*a* Lawrence, John N., New York, N. Y.—Ten pin balls and sample pin. H 72. 340

335 Shibe, J. D., Philadelphia, Pa.—Base balls. B 77. 340

335*a* Automatic Swing Co., St. Louis, Mo.—Automatic swings. (*Outside space.*) 340

336 Reach & Johnston, Philadelphia, Pa.—Base balls and sporting goods. B 75. 340

336*a* Wood, William, New York, N.Y.—Model of gymnasium with apparatus. T 55. 340

337 Marsh, Jas. P., & Co., Chicago, Ill.—Improved health lift. N 52. 340

337*a* Carr, W. B., & Co., Brooklyn, N. Y.—Base balls. F 71. 340

338 Rice, S. W., & Co., New York, N. Y.—Base and dead balls, uniforms, and sporting goods. B 75. 340

338*a* Knight, W. A., Worcester, Mass.—Health lifts. B 74. 340

339 Hiester, Chas. Edward, Harrisburg, Pa.—Exercising clubs of adjustable weight. N 50. 340

340 Leeds, Louis M., New York, N. Y.—Diagrams and charts on ventilation. B 78. 342

341 Derrom, Andrew, Passaic, N. J.—Workman's cottage. (*In Park.*) 342

342 Kasson, W. M., Department of Public Comfort. (*North, South, and West Entrances.*) 342

343 Department of Public Comfort.—Stationery, newspapers, periodicals, and photographs for sale. H 70 *and* N 6. 342

344 Rudolph & Walter, Camden, N. J.—Buffet. T 41 *to* 47. 342

345 Department of Public Comfort.—Café, Leland's. T 33 *to* 36. 342

345*a* Hinvest, Robert, New York, N.Y.—Clamp and band for scouring masonry, hollow brick for ventilation, chimney top. (*Outside.*) 342

347 Centennial Safe Deposit Co., Philadelphia, Pa.—Safes for the protection of valuables. N 65. 343

348 Scott, J. W., & Co., New York, N. Y.—Foreign stamp albums. P 73. 344

349 Mayer, Moses, New York, N. Y.—Collection of coins. T 72. 344

349*a* New York Catholic Protectory, New York, N. Y.—Photographic views of the Protectory buildings. V 53. 346

350 Inventors' Protective & Benevolent Association of the United States, Pittsburg, Pa.—Working models of inventions of members of the Association. (*West Gallery.*) 346

350*a* American Society for the Prevention of Cruelty to Animals, New York, N. Y.—Deodands, or instruments used in torturing dumb animals, taken from offenders; banners and illustrations. D 79. 346

350*b* American Missionary Association, New York, N. Y.—Map, showing location of institutions and mission stations in the United States, photographs of buildings, examination papers, catalogues. (*South Gallery.*) —— 348

351 Young Men's Christian Association of North America, Executive Committee, Richard C. Morse, Secretary, New York, N. Y.—Map, pictures, and plans of Association buildings; reports, circulars, and other literature. (*South Gallery.*) 348

351*a* Dod, S. B., Hoboken, N. J.—Bust of Col. John Sterns. (*West Gallery.*) 400

351*b* Shippen, W. W., Hoboken, N. J.—Portraits of the Messrs. Stevens. (*West Gallery.*) 410

351*c* Miller, William J., Philadelphia, Pa.—Engravings on whitening. 421

351*d* Camp, J. H., Philadelphia, Pa.—Photographs of the drawing of Main Building and Machinery Hall. P 65. 430

351*e* Sweeney, Thomas S., Cleveland, O.—Transparent photographic views in Ohio. (*Vestibule windows, Ohio State Building.*) 430

352 Heard & Sons, Cleveland, O.—Architectural design of the Ohio State Building. 441

353 Pfeiffer, Carl, New York, N. Y.—Design of New Jersey State Building. 441

354 Schwarzmann, H. J., Philadelphia, Pa.—Designs of Memorial Hall, Horticultural Hall, Judges' Pavilion, and Women's Pavilion. 441

355 Buzby, Albert G., Philadelphia, Pa.—Water motor for blowing organ bellows, etc. P 66. 562

356 Stokes & Parrish, Philadelphia, Pa.—Passenger elevator. (*S. E. Central Tower.*) 563

357 Boston Hydraulic Motor Co., Boston, Mass.—Hydraulic motors for blowing Hook & Hastings' organ in gallery at east end of nave. L 79 *and* K 79. 563

358 Byrns & Bryan, New York, N. Y.—Ale pump. P 59. 565

Railroad Cars, Vessels, Agricultural Products.

359 Pullman's Palace Car Co., Chicago, Ill.—Gold and silver model of a Pullman palace sleeping car. N 63. 571

360 Woodruff, Jonah, Philadelphia, Pa.—Silver model of sleeping car. N 61. 571

361 Snow, J. H., Bucksport, Me.—Model ship. H 70. 594

362 Neilson, George, Philadelphia, Pa.—Model of the ship "Independence," of Philadelphia. (*Centre Aisle.*) 594

363 State of New Jersey (by Geo. H. Cook, State geologist, New Brunswick, N. J.).

a Specimens of wood growing in New Jersey. T 70. 600

b Fertilizers and soils. 681

364 Philadelphia & Reading R. R. Co., Philadelphia, Pa.—Cereals. T 72. 620

365 Judy, W. W., St. Louis, Mo.—Game birds of Missouri, stuffed. T 60. 635

366 Bene, Creighton, & Co., New York, N. Y.—Feathers. H 76. 653

367 Campbell, S. S., Cadiz, O.—Samples of wool. V 61 *to* 65. 667

368 Baylis, H., Cadiz, O.—Samples of wool. V 61 *to* 65. 666

369 Birney, M. L., Bowerstown, O.—Samples of wool. V 61 *to* 65. 667

370 Quigley, Albert, Cadiz, O.—Wool. V 61 *to* 64. 667

371 Jamison, W. W., Cadiz, O.—Wool. V 61 *to* 64. 667

372 Faxon & Wright, Philadelphia, Pa.—Samples of wool extracted from rags composed of cotton and wool, by a new process. P 43. 667

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

GREAT BRITAIN.

(*South of Nave, Columns 23 to 38.*)

Educational Books and Appliances.

Educational Systems, Methods, and Libraries.

1 **Sunday-School Union, London.**—Works for Sunday-schools.—Books, magazines, cards, reward tickets, illuminations, and large type texts, Sunday-school registers, roll books, librarian and minute books; Sunday-school newspaper. 300

3 **Bartholomew, John, Edinburgh.**—Maps. 300

7 **Adams, Walter Marsham, London.**—The problem of Pythagoras; cœlometer for illustrating elementary astronomy; mensurator for solving triangles, etc. 302

8 **Augener, George, & Co., London.**—Editions of the classics and other printed music books. 302

8*a* **Boosey & Co., London.**—Band, choral, and household music. 302

9 **Clark, Edward Podmore, Bath.**—Military model apparatus for illustrating drill movements. 302

10 **The British & Foreign Blind Association, for Promoting the Education and Employment of the Blind, London.**—Writing frames, embossed books, and maps for the blind. 303

11 **Dickinson & Higham, London.**—The hexaglot Bible. 306

12 **Dickes, William, London.**—Chromo-lithography, engraving and photographic engraving, and photographic engraving and printing; framed oleographs, chromographs from stone and surface printing, wood engraving, photographic engraving, etc. 306

13 **Scott, Robson John, London.**—Blocks used for wood engravings; compound and bolted blocks of box and other woods. 306

14 **Stephenson, Blake, & Co., Sheffield.**—Specimens of printing types, book of specimens. 306

15 **Ravenstein, Ernest George, Geographical Institute, London.**—General and geological maps of New Zealand; physical and statistical atlas of United Kingdom; relief map of the United States; geographical and statistical works. 306

15*a* **Johnston, W. & A. K., Edinburgh, Scotland.**—Maps; illustrations of human anatomy, astronomy, botany, and mechanical powers. 306

16 **Palmer, Samuel, London.**—Index to the "Times" newspaper, a quarterly publication. 306

16*a* **Warner, Robert, London.**—Works on "Select Orchidaceous Plants." 306

17 **Loth, John Thomas, Edinburgh.**—Educational books and illustrations of the thirty-three degrees of the ancient and accepted Scottish rite. 306

17*a* **Audsley & Bowes, Liverpool.**—Works on "Keramic Art in Japan." 306

18 **Lockwood, Crosby, & Co., London.**—Books, rudimentary, scientific, educational, and classical series. 306

19 **Cassell, Petter, & Galpin, London.**—Illustrated books, publications, serials; educational books and appliances; electrotypes of engravings on wood. 306

20 **Smith, David, Halifax, Yorkshire.**—The "Dyer's Instructor." 306

21 **Dowson, Sutherland, & Co. (limited), London.**—Complete file of "Iron," a weekly newspaper. 306

21*a* **Price & Co., London.**—Fac-similes from ancient manuscripts and printed books. 306

22 **Potts, Roberts, M.A., Trinity College, Cambridge.**—Educational books. 306

23 **Murray, Andrew, London.**—Illustrations and specimens of galls produced by mites, aphides, flies (cecidomyia), sandflies, cympidæ. 306

23*a* **Bradbury, Agnew, & Co., London.**—Books and engravings. 306

24 **Proprietors of the "Illustrated London News," London.**—Specimens illustrating the art department of the "Illustrated London News." 306

25 **Rola, Vincent, Bayswater.**—Method for the piano, with diagrams and specimens of music. 306

26 **Proprietors of the "Graphic," London.**—Process of producing an illustrated newspaper, from the receipt of sketches to the final issue of printed sheets to the public. 306

27 **Holdsworth, Edmund William Hunt, London.**—Work on deep sea fishing and fishing boats. 306

28 **Johnson, J. M., & Sons (limited), London.**—Printing in color, show tablets. 306

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

30 Rundell, Joseph Benjamin, South Kensington Museum, London.—Shorthand alphabet; maps, plans, etc., for educational atlases and other purposes; lithographic printing as applied to maps. 306

31 Paul, William, Waltham Cross, Herts.—Works on horticulture. 306

Institutions and Organizations.

31*a* South Kensington Museum.—Objects exhibited by order of the Lords of the Committee of Council on Education. 310

31*b* Ordnance Survey of the United Kingdom of Great Britain and Ireland.—Ordnance maps. 311

31*c* Geological Survey of the United Kingdom of Great Britain and Ireland.—Maps. 311

31*d* Johnson, Edmund, London.—Catalogues and other works having reference to international exhibitions. 312

Scientific and Philosophical Instruments and Methods.

31*e* Hicks, James Joseph, London.—Meteorological and scientific instruments. 320

32 Siemens, Charles William, London.—Pyrometers. (*In Machinery Hall.*) 320

32*a* Clay, Randolph, London.
- *a* Instrument for tracing ellipses and other curves. 320
- *b* Model of a deck seat with life-raft and of a boat distinguishing hook. 594

32*b* Negretti & Zambra, London.—Meteorological and scientific instruments. 302

33 Lyon, Washington, London.—Calculating table for rapidly multiplying numbers above 12. 321

33*a* Zimdars, C. E., London.—Pneumatic signal and communication apparatus; pneumatic railway signals, indicating and registering apparatus. 321

34 Wier, M. A., & Co., London.—Hydro-gyrometer or revolution indicator. 321

35 Morton, George, London.—Chronometer and watch balance springs, wire, and gauge. 323

35*a* Gibson, William, Belfast.—Watches. 323

36 Smith, Borthwick, London.—Watches and chronometers, cases, dials, and movements. 323

36*a* Goggin, Jeremiah, Dublin.—Timepieces. 323

36*b* Neal, John, London.—Gold and silver watches, chronometers, and timepieces. 323

37 Sewill, J., Liverpool.—Marine chronometers and watches. 323

38 Mercer, Thomas, London.—Marine chronometers. 323

39 Kullberg, Victor, London.—Marine chronometers, watches, chronographs, repeaters, etc. 323

40 Dent, M. F., London.—Marine chronometers, watches, chronometer clocks, etc. 323

41 Whittaker, Richard, London.—Keyless watches. 323

42 Poole, James, & Co., London.—Marine chronometers and watches. 323

43 Nicole, Nielson, & Co., London.—Watches, chronometers, complicated watches, and chronographs. 323

44 Claxton, Robert, London.—Chronometer jewelings in all stages. 323

45 Frodsham, Charles, & Co., London.—Watches, clocks, and chronometers for astronomical purposes; pocket and marine chronometers. 323

46 Swift, James, London.—Microscopes and apparatus. 324

47 Middleton, Thomas John, London.—Magic lanterns, dissolving view apparatus, dissolving top for the oxyhydrogen lime light, lantern slides, etc. 324

48 Beck, R. & J., London.—Microscopes, telescopes, race glasses, surveying and meteorological instruments and tools. 324

49 Wheeler, Edmund, London.—Specimens for the microscope. 324

50 Dallmeyer, John Henry, London.—Astronomical and terrestrial telescopes, microscopes, photographic lenses, cameras, and apparatus. 324

51 Ross & Co., London.—Microscopes, monocular and binocular apparatus, object glasses, telescopes, and photographic lenses. 324

52 Crouch, Henry, London.—Microscopes, binocular, and with complete accessories for every class of scientific investigation; cabinets, lamps. 324

52*a* Rein, Frederick Charles, & Son, London.
- *a* Magneto-electric machines. 325
- *b* Acoustic instruments, speaking tubes and trumpets; acoustical contrivances for churches, public buildings, etc.; anti-acoustic protector. 327

53 India-Rubber, Gutta-Percha, and Telegraph Works Co. (limited), Silvertown, Essex.—Telegraph cables, insulated telegraph wires. 325

53*a* Mayer & Meltzer, London.—Galvanic batteries. 325

54 Siemens Bros., London.—Cable samples, and gutta-percha as applied to the manufacture of cables. 325

54*a* Lacey, Richard George, Coast Guard Station, Leigh, Essex.
- *a* Alarm signal box for ships. 326
- *b* Fisherman's block. 647

54*b* Kimpton, Thomas, London.—Pneumatic sound communicator. 326

54*c* Telegraph Construction & Maintenance Co. (limited), London.—Submarine telegraph cables. 326

55 Heaps, John Knowles, Holbeck, Leeds.—Violin and violoncello. 327

56 Smith, George, South Hackney.—Portable finger organ. 327

57 Boosey & Co., London.—Musical wind instruments, percussion instruments for bands. 327

58 Brinsmead, John, & Sons, London.—Grand, semi-grand, upright, and studio pianos; check repeater action for upright and grand pianos. 327

59 Collmann, Leonard W., London.—Cottage piano. 327

60 Besson, F., & Co., London.—Brass musical instruments. 327

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Musical Instruments, Sports, Construction of Buildings.

61 Browne, H. Justin, London.—Upright cottage piano fortes. 327

Physical, Social, and Moral Condition of Man.

62 Nicholson, Hamlet, Rochdale.—Cricket and playing balls. 340

62*a* Lewis, J., Edinburgh.—Curling stone. 340

63 Cochrane, Robert C. E., Athlone, Ireland.—Drawings illustrating the application of concrete to the erection of an improved construction of dwellings. 342

63*a* Greenway, Henry, Plymouth.—Drawings of hospital construction. 346

(N.B.—Certain exhibits in this department from Great Britain are installed in Agricultural Hall, and catalogued in Part IV.)

NEW SOUTH WALES.

(North of Nave, Columns 10 to 17.)

Educational Publications, Statistics, Maps, Photographs, etc.

Educational Systems, Methods, and Libraries.

1 Mechanics' School of Arts, Sydney.—Wax seal impression of corporate seal. 302

2 Government Printing Office, Sydney, New South Wales.

a Meteorological results, and report on education. 305

b Government gazettes, statutes, statute index, specifications of patents, parliamentary hand book, blue book and statistical register, census reports on railways, Rae's poems, newspapers, Australian languages. 306

Institutions and Organizations.

3 New South Wales Commissioners, Sydney.—Birds of Australia, prepared by Thorpe. 312

4 Trustees of the Australian Museum, Sydney.—Specimens of natural history of Australia. 312

Scientific and Philosophical Instruments and Methods.

5 Parrot, T. S., Sydney.—Semaphore, an instrument designed for army signaling purposes. 326

Engineering, Architecture, Maps, etc.

6 New South Wales Commissioners, Sydney.—Topographical and geological maps and sections of New South Wales. 335

Physical, Social, and Moral Condition of Man.

7 Government Printing Office, Sydney.—Industrial Progress of New South Wales; Transactions of Royal Society. 347

Photography.

1 The Commission.—Photographic views of public buildings, scenery, etc., in and around Sydney, N. S. W. 430

2 Richards, T., Sydney.—Photographic views of buildings, etc., in and around Sydney; photographic views of Blue Mountains and valley of the Grose; photographic views of entomological collection of New South Wales. 430

3 Degotardi, John, Sydney.—Photo-mechanical printing. 431

4 Richards, T., Sydney.—Photo-lithographs. 432

Hydraulic and Pneumatic Apparatus.

1 Postle, Sydney.—Ice machine. 568

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

VICTORIA.

(*North of Nave, Columns 10 to 17.*)

Publications, Statistics, etc.

Educational Systems, Methods, and Libraries.

1 **Educational Department of Victoria, Melbourne.**—Photographic views of state schools in Victoria. 300

2 **Commissioners for Victoria, for the Philadelphia Exhibition, Melbourne.**—Portfolios of music by W. H. Glen. 302

3 **Victorian Asylum & School for the Blind, Melbourne.**—Baskets, perambulators, portmanteaus, trunks, mats, fancy wool-work, etc., made by the pupils. 303

3*a* **Victorian Asylum for Deaf & Dumb.**—Photographs. 303

4 **Commissioners for Victoria, for the Philadelphia Exhibition, Melbourne.**—Official records, catalogues, lectures, reports, medical works, school books, sermons, and general literature. 304

5 **Ferres, John, Government Printer, Melbourne.**—Reports and statistics from the principal government institutions of Melbourne; Victorian newspapers. 305

6 **Warrnambool, Borough Council for.**—Statistics of the borough. 305

Scientific and Philosophical Instruments and Methods.

7 **Commissioners for Victoria, for the Philadelphia Exhibition, Melbourne.**—Bell and stand. 327

8 **Kilner, Joseph, Richmond.**—Piano fortes. 327

Engineering, Architecture, Maps, etc.

9 **Commissioners for Victoria, for the Philadelphia Exhibition, Melbourne.**—Miscellaneous maps, etc. 330

10 **Surveyor-General of Victoria, Melbourne.**—Maps and plans of the colony of Victoria. 330

Physical, Social, and Moral Condition of Man.

11 **Commissioners for Victoria, for the Philadelphia Exhibition, Melbourne.**

a Patent ceiling ventilator; model of Victorian bush residence, with huts and various kinds of fencing. 342

b Sovereigns and half-sovereigns from Royal Victorian mint, Melbourne. 344

c Baskets, mats, etc., made at Coranderrk aboriginal mission station; vocabulary of Victorian aboriginal dialects, bluestone tomahawk, photographs of Victorian aborigines. 348

12 **Bank of Victoria, Melbourne.**—Bank notes and statistics of the bank. 344

13 **Commercial Bank of Australia, Melbourne.**—Bank notes, photographs, and statistics of the bank. 344

14 **National Bank of Australasia, Melbourne.**—Bank notes and statistics of the bank. 344

15 **Penal Department, Inspector-General of Melbourne.**—Warder's uniform, prisoners' clothing, hats, boots, shoes, mats, etc. 345

CANADA.

(*North of Nave, Columns 16 to 23.*)

Educational Collections.

Educational Systems, Methods, and Libraries.

1 **Merritt, J. P., St. Catherine's, Ont.**—Metric and chronological tables, chronotable of Canada. 300

2 **Tennant & McLachlan, Hamilton, Ont.**—Penmanship. 300

3 **Pearse, James, Chatham, Ont.**—Penmanship. 300

4 **Browne, James, Toronto, Ont.**—Chart stand and illustrator. 300

5 **Educational Department, Toronto, Ont.**—This is a department of State of the Province of Ontario, constituted by a committee of the Executive Councils, and is presided over by a member thereof, who is directly responsible to the Legislature. Minister of Education, Hon. Adam Crook, LL.D.; Deputy Minister of Education, John George Hodgins, LL.D.; Secretary, Abraham Marling, LL.D. 300

6 **Beatty, L. J., Belleville, Ont.**—Penmanship. 300

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Educational Appliances, Scientific and Musical Instruments, etc.

7 Hector, Thos., Ottawa, Ont.—Rotary polar map of the world. 300

8 Genest, P. M. A., Quebec, Q.—Map of "La Nouvelle France." 300

9 Tackabury, J. N., Montreal, Q.—Dominion atlas, maps of Ontario and Quebec. 300

10 May, John P., Canada School Apparatus Co., Toronto, Ont.—Chemical laboratories, anatomical models, object-lesson cabinets, etc. 300

12 English, Ch., St. John, N. B.—Composition blackboard. 300

13 Hill, C. P., Halifax, N. S.—Photograph Halifax Industrial School. 300

15 McGill University, Montreal, Q.—Calendars, medals, photographs of universities. 301

16 Université Laval, Quebec, Q. 303

17 College Nicolet, Nicolet, Q. 303

18 Maitrise St. Pierre, Montreal, Q. 303

19 Ecole du Plateau, Montreal, Q. 303

20 College Ste. Hyacinthe, Ste. Hyacinthe, Q. 303

21 Séminaire Ste. Thérèse, Ste. Thérèse, Q. 303

22 Collège Joliette, Joliette, Q. 303

29 Providence, Montreal, Q. 303

30 Bon Pasteur, Montreal, Q. 303

33 Hopital Général, Quebec, Q. 303

34 Hopital Général, Montreal, Q. 303

35 Frères de la Charité, Montreal, Q. 303

36 Hopital du Sacré-Cœur, Montreal, Q. 303

39 Convent de Sillery, Quebec, Q. 303

40 Campbell, James, Toronto, Ont.—Books. 306

41 Weld, W., London, Ont.—Farmer's Advocate. 306

42 Lovell Printing & Publishing Co., Montreal, Q.—School and other books. 306

43 Webster, Geo., Hamilton, Ont.—Bible, printed. 306

44 Sheppard, W., Quebec, Q.—Bible (1555). 306

45 MacKinlay, A. & W., & Co., Halifax, N. S.—Map of the United States; series of school books. 306

Institutions and Organizations.

46 Bell, Robert, Montreal, Q.—Indian curiosities and manufactures. 312

47 St. Amand, A., Loretto, Q.—Indian curiosities. 312

48 Advisory Board, Victoria, Br. Col.—Indian goods and manufactures. 312

Scientific and Philosophical Instruments and Methods.

49 Cornell, S., Widden Stantio, Ont.—Marine compass. 320

50 Meyer, Aleert, F. W., Montreal, Q—Apparatus for determining inaccurate points. 320

51 Hearne & Harrison, Montreal, Q.—Surveying and other instruments. 320

52 Ross, Alex., Montreal, Q.
a Odonmeter. 320
b Indicating and registering apparatus. 321

53 Landham, F., Ottawa, Ont.—Lumbermen's measuring rule. 322

54 Sabis, B., Point Levis, Q.—Sliding foot rule. 322

56 Morris, J. W., Hamilton, Ont.—Universal clock. 323

57 Duquet, C., Quebec, Q.—Watchman detector. 323

58 Lefort & Chapleau, Montreal, Q.—Watchman detector. 323

62 Marrin Bros., Parkhill, Ont.—Parlor organ. 327

63 Bell, W., & Co., Guelph, Ont.—Cabinet organs. 327

65 Delamere, J. H., Toronto, Ont.—Organs. 327

66 Mee, C., & Co., Kingston, Ont.—Melodeon, parlor organ, and organ keys. 527

68 Dominion Organ Co., Bowmanville, Ont.—Organs. 327

70 Knott, John, & Son, Hamilton, Ont.—Upright piano. 327

71 Heintzman & Co., Toronto, Ont.—Square piano. 327

72 Kater, Th., Hamilton, Ont.—Pianos, parts of pianos, etc. 327

73 Weber & Co., Kingston, Ont.—Pianos. 327

74 Rainer & Son, Guelph, Ont.—Piano. 327

75 Draper, E., London, Ont.—Harmonic instructor and musical game. 327

77 Lyonnais, T., Quebec, Q.—Violin. 327

79 Sheppard, W. G., Quebec, Q.—Violoncello, 1772. 327

80 New Dominion Organ Co., St. John, N. B.—Cabinet organs. 327

81 Gates, E. E., Halifax, N. S.—Cabinet organs. 327

82 Brockley & Co., Halifax, N. S.—Upright piano and stool. 327

Engineering, Architecture, Maps, etc.

83 Gray, F. Wood, Quebec, Q.—Engineering drawings. 330

84 Cousin, Paul, Quebec, Q.—Map of city of Quebec, etc. 330

86 Trout, W. H., Peterborough, Ont.—Mechanical drawings. 330

87 Johnstone, J., Ottawa, Ont.—Geographical drawing. 335

88 Burpee, M., Upper Sheffield, N. B.—Mechanical drawing. 335

89 Honeyman, Dr., Halifax, N. S.—Geological map of Nova Scotia. 335

90 Anderson, A. T., Br. Col.—Physical map of British Columbia. 335

Physical, Social, and Moral Condition of Man.

92 The Corporation of Toronto, Toronto, Ont.—Photographic views of buildings in Toronto. 345

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

FRANCE.

(*South of Nave, Columns 39 to 53.*)

Educational Publications, School Apparatus.

Educational Systems, Methods, and Libraries.

1 Godchaux, Aug., & Co., Paris.—Copy books for schools. 300

2 Rives, Paris.
a School furniture. 300
b School materials. 301

3 Bapterosses, F., Paris.—School materials. 300

4 Desbarolles, Paris.—Works on penmanship. 300

5 Delalain, J., & Son, Paris.—School books in different languages. 300

7 Le Brun, Paris.—Elementary dictionaries. 300

8 Lagout, Nogent-sur Seine (Aube).—School materials. 300

9 Leroy, P., Brides-les-Bains, near Moutiers (Savoy).—Educational system. 300

10 Maitrepierre, Paris.—Copy books. 300

11 Raybaud, Draguignan (Var).—Reading method. 300

12 Touron, Emile, Bois de Colombes (Seine).—Geometrical problems. 300

13 Taulard, Principal of Menelou-Salon School, Menelou-Salon (Cher).—Pupils' work. 300

15 Mouret, Paris.—Globe. 301

16 Levesque, Villeneuve St. Denis (Seine and Marne).—Metrical system. 301

17 Eloffe & Co., Paris.—Works on natural history; terrestrial globes. 301

18 Level, Paris.—Medical and graphic systems. 301

19 La Cointe, Evreux (Eure).—Arithmetical problems. 302

20 National School of Engineering, Paris.—Documents and reports of the school. 302

21 National School of Mines, Paris.—Documents and reports of the school. 302

22 Méilot, A., Paris.—Music method. 302

23 Dauphin, Lunéville (Meurthe and Moselle).—Printing in relief for the blind. 303

24 Dupont, Paul, Paris.—Works on government and education. 306

25 Duployé Bros., Paris.—System of stenography. 306

26 Dunod, Paris.—Scientific and mechanical works. 306

27 Dumaine, J., Paris.—Military books. 306

28 Ducrocq, P., Paris.—Children's books. 306

29 Deucher & Co., Paris.—Works on art and architecture; chromo-lithographs, engravings and photographs. 306

30 Didier & Co., Paris.—Academical books. 206

31 "Gazette des Beaux Arts," Paris.—Specimens of the paper and its engravings. 306

32 Gauthier-Villars, Paris.—Scientific books. 306

33 Furne, Jouvet, & Co., Paris.—General literature. 306

34 Firmin Didot & Co., Paris.—Illustrated literary works. 306

35 Laboulaye, Ch., Paris.—Dictionary of arts and manufactures, and works concerning industrial art. 306

36 Jouaust, D., Paris.—Literary works. 306

37 Jacquemin, Paris.—Historical costumes. 306

38 Hetzel, J., & Co., Paris.—Books. 306

39 Hennuyer, Paris.—Books. 306

40 Hachette & Co., Paris.—Educational, literary, and illustrated works. 306

41 Guillaumin & Co., Paris.—Works on political economy and finance; "Journal des Economistes." 306

42 Guérin, L., & Co., Paris.—Works on science and art. 306

43 Lemerre, Alphonse, Paris.—Classical work. 306

44 Desteract, A., Paris.—Account books. 306

45 Leroy, André, Angers (Maine and Loire).—Pomological dictionary. 306

46 Leroy, P. N., Paris.—Illustrated historical works. 306

47 Maisonneuve & Co., Paris.—Books. 306

48 Loones, Paris.—History of painters. 306

49 Maison Rustique, Agricultural Library, Paris.—Works on agriculture and horticulture. 306

50 Mariel, H. de, New York.—Work on the commerce and industry of the United States. 306

51 Mame, A., & Son, Tours.—Classical works. 306

52 Masson, G., Paris.—Works on medicine, natural history, etc. 306

53 Morel, Mrs. A., & Co., Paris.—Works on architecture. 306

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

54 Plon & Co., Paris. — Illustrated works on history, jurisprudence, etc. 306

55 Delahaye, V. A., & Co., Paris.—Works of the Biological Society and the Anatomical Society of Paris. 306

56 Delagrave, Ch., Paris.—Geographical and classical books. 306

57 Ballue, A., Paris.—Illustrated publications. 306

58 Balny, A., Espaubourg (Oise).—Work on agriculture. 306

59 Baudry, T., Paris.—Works on engineering, mechanics, mining, metallurgy, and railroads. 306

60 Beckensteimer, Lyons.—Works on electricity. 306

61 Belin, Mrs., Paris.—Classical books; maps in relief. 306

62 Belleville, Col., Toulouse.—Report on hydrophobia; physiological reports. 306

63 Boulanger, Mrs., Paris.—Books. 306

64 Calman, Lévy, Paris.—Literature, history, and modern drama. 306

65 Charpentier & Co., Paris.—Various publications. 306

66 Colin & Co., Paris.—Classical books. 306

67 Reinwald, E., & Co., Paris.—Books. 306

68 Rothschild, J., Paris.—Books. 306

69 Rudy, Charles, Paris.—The Chinese mandarin language. 306

70 Staaff, Paris.—Work on military tactics. 306

71 Tanera, Paris.—Topographical maps and plans of battles; military books. 306

72 Thirion, Ch., Paris.—Inventors' and patentees' tablets. 306

73 Central Union of Fine Arts, Paris.—Albums and publications. 306

74 Chervin, Paris.—Method of curing stammering. 306

75 Dron, Paris.—Commercial books. 306

76 City of Paris.—Statistics, regulations, models, programmes, reports, books, and scholars' work of the schools of Paris; report on primary instruction by Mr. Gréard. 306

Institutions and Organizations.

77 Department of Public Education, Paris.—Regulations of the French Institute, the College of France, and the National Library; books and catalogues; report on primary education at the Vienna Exposition. 310

78 Chaix, A., & Co., Paris.—Scientific books. 311

79 Industrial School, St. Quentin and Aisne.—Albums, cartoons, etc. 311

80 Elementary Education Society, Paris.—Pupils' works and report. 311

81 Publishers', Printers', and Stationers' Club, Paris.—Publishing, printing, and stationery. 311

82 City of Paris.—Catalogue of the French section of the London Exhibition. 312

83 Bouvier, A., Paris.—Skeletons of gorillas; catalogue of the birds of Central Africa; map. 312

84 Department of Agriculture & Commerce, Paris.—Prizes awarded to agriculturists by various fairs. 312

Scientific and Philosophical Instruments and Methods.

85 Alvergniat Bros., Paris.—Scientific instruments. 320

86 Grivolat L., Paris.—Solar clock. 320

87 Lion & Guichard, Paris.—Barometers, thermometers, and pyrometers. 320

88 Louvet, A., Pont l'Evêque (Calvados).—Support for instruments. 320

89 Optical Society, Paris.
a Mathematical instruments. 320
b Optical instruments. 324

90 Malligand, Ed., jr., Paris.—Alcohol tester. 320

91 Naudet & Co., Paris.—Barometers. 320

92 Perreaux, L. G., Paris.
a Instruments of precision. 320
b Indicating apparatus. 321

93 Colange, Leo de, Philadelphia.—Automatic indicator. 321

94 Haas, B., jr., & Co., Paris.
a Carriage controllers. 321
b Clocks, watches, musical boxes, and singing birds. 323

95 Nicolas & Chamon, Paris.—Water meters. 321

96 Rigollot, Paris.—Water meter. 321

97 Rubolti, Cesar, Grenoble.—Spigot meter. 321

98 Deschiens, Paris.—Calculating machines. 321

99 Fialont, Mrs., Paris.—Measuring tapes. 322

100 Chameroy & Co., Paris.—Scales. 322

101 Deleuil, Paris.—Photometer, scales, and pneumatic machines. 322

102 Panier, Ernest, Paris.—Mathematical instruments. 322

103 Paupier, Leonard, Paris.—Scales for railroads. 322

104 Trayvou, B., Paris.—Scales. 322

105 Savary & Rondeleux, Paris.—Gold and silver watches. 323

106 Boucher-Gravet, Paris.—Clocks. 323

107 Cressier, E., Besançon.—Watches and clocks. 323

108 Brêguet & Co., Paris.—Chronometers. 323

108*a* Hangard, Paris.—Springs for watches. 323

109 Farcot, Eugène, Paris.—Clocks. 323

110 Gondy, J. B., & Co., Pontarlier (Doubs).—Watches. 323

111 Malfait, F., & Co., Paris.—Clocks. 323

111*a* Moat, Eugène, Paris.—Springs for watches. 323

112 Marrel, J. E., Paris.—Clocks. 323

113 Mayet-Tissot, Morez (Jura).—Regulators. 323

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Scientific and Musical Instruments, Engineering Designs.

114 Rodanet, A. H., Paris.—Marine and pocket chronometers, watches, and chains; clocks, registers. 323

115 Süssfeld, Lorsch, & Co., Paris.—Marble clocks. 323

116 Vignon, A., Paris.—Clocks. 323

117 Lachenal, Favre, & Co., Paris.—Stereoscopes with views on glass. 324

118 Bardou & Sons, Paris.—Optical instruments. 324

119 Darlot, Paris.—Photographic apparatus and photographs. 324

120 Derogy, Paris.—Optical instruments. 324

121 Duboscq, J., Paris.—Optical instruments. 324

122 Feil, Charles, Paris.—Optical goods. 324

123 Henry-Lepaute, Paris.—Lenses for lighthouses. 324

124 Hoel, J., Paris.—Spectacles and eyeglasses. 324

125 Lacombe, Paris.—Opera glasses. 324

126 Nachet, A., Paris.—Microscopes. 324

127 Secrétan, Paris.—Astronomical and scientific instruments. 324

128 Radiguet, Paris.—Mirrors. 324

128*a* Lemaire, Paris.—Eyeglasses, opera glasses, etc. 324

129 Loiseau, A., Son, Paris.—Electrical apparatus. 325

130 Bréguet, Paris.—Models of magneto-electric machines for laboratories. 325

131 Carré, E., Paris.—Pneumatic pumps, electrical machines, and light regulators. 325

132 Janin, Paris.—Magnets. 325

133 Gramme's Magneto-Electric Machine Co., Paris.—Galvano-plastic machine, etc. 325

134 Walcker, A. G., Paris.—Pneumatic and telegraph bells applied to the navy and railways. 326

135 Alexandre & Son, Paris.—Church and parlor organs. 327

136 Angot & Dubreuil, Ivry-la-Bataille (Eure).—Wooden musical instruments. 327

137 Beunon, Paris.—Upright piano. 327

138 Baudet, Paris.—Pianos. 327

139 Bontems, B.—Singing and moving birds. 327

140 Brunning, Otto, Paris.—Upright pianos. 327

141 Debain & Co., Paris.—Mechanical piano. 327

142 Focké & Son, Paris.—Pianos. 327

143 Fortin Bros., Paris.—Felts for pianos. 327

144 Gavioli, C., jr., Paris.—Pianos and organs; automatic musical instruments. 327

145 Gavioli & Co., Paris.—Organs, pianos, flutes, and band instruments. 327

146 Gehrling, Ch., jr., Paris.—Piano movements. 327

147 Goumas, P., & Co.,—Wind musical instruments and saxophone. 327

148 Koenig, Rudolph, Paris.—Acoustic apparatus. 327

149 Kriegelstein & Co., Paris.—Pianos. 327

150 Lecomte, A., & Co., Paris.—Musical instruments. 327

152 Mennesson, Emil, Reims.—Violins, altos, bass, and double bass. 327

153 Morand & Tourneur, Paris.—Mechanical harmoniums. 327

154 Thibouville, Lamy, Paris.—Musical instruments. 327

155 Zimmermann, Henry, Paris.—Organ pipes. 327

Engineering, Architecture, Maps, etc.

156 Suez Canal Co., Paris.—Maps and plans of the Suez Canal. 330

157 Caligny, A. de, Versailles.—Report on hydraulics. 330

158 Blanchet, A. P., Henrichemont (Cher).—Projected channel through Nicaragua. 330

159 Chanudet, L., Neuilly-sur-Seine.—Model of wooden pavement. 330

160 Le Moulnier, Paris.—Sample of pavement. 330

161 Department of Public Works, Paris.

a Roads, bridges, viaducts, dams, hydraulic press, docks, embankments, aqueducts, and reservoirs. 330

b Railroads; steel rails, depots, rolling stock, etc. 332

c Navigation; lighthouses, buoys, and beacons, with apparatus for lighting; life-saving apparatus from the Life-Saving Society. 334

d Geological and agricultural maps, etc., of France; reports and documents from the National School of Mines. 335

162 Monteil & Cassaynes, Paris.—Technical report upon the Suez Canal. 330

163 City of Paris.—Reports of the various departments of the city of Paris, maps, plans, etc.; projected and completed bridges by Mr. Legrand; promenades by Mr. Alphand; architectural reports of public buildings by Messrs. Ballu, Baltard, Duc, Davioud, Magne, and Fernique; portfolio of engravings of monuments; historical works; plan of Paris by Quesnal; archæological reports by Vacquer; photographs; reports and plans of the sewers of Paris. 330

164 Edoux, Leon, Paris.—Special system for mountain railroads. 332

165 Transatlantic Steamship Co., Paris.—Model of the steamship "Pereire." 334

166 Beaumarchey, Louis, Aix (Provence).—Astronomical maps and pictures, astronomical indicator, cosmographic apparatus. 335

167 Fay, de, War Department, Paris.—Relief plans. 335

168 Erhard, Paris.—Geographical maps. 335

169 Furne, Jouvet, & Co., Paris.—Geographical military atlas adopted by the military school of St. Cyr. 335

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

170 D'Italo, Enrico F., Paris. — Geographical works, atlas, and maps. 335

171 Thomas, Paris.—Chronometric and cosmographic instruments. 335

172 Wührer, L., Paris.—Geographical maps. 335

173 Lienard, F.—Plans in relief, of Paris and Jerusalem. (*In Park.*) 335

Physical, Social, and Moral Condition of Man.

174 Brière, Jules, Alençon (Orne).—Nursing-nipples. 340

175 Carue, Paris.—Gymnastic apparatus. 340

176 Paz, E., Paris.—Gymnastic apparatus. 340

177 Regnier, Paris. — Economical wooden roofing. 342

178 Thirion, Ch., Paris.—Writing tablets. 343

178*a* Society of Comparative Legislation, Paris.—Legislative works. 345

179 Marbeau, Paris. — Plans, documents, etc., of a foundling hospital. 346

180 City of Paris.
a Reports of the municipal authorities. 345
b Reports of the municipal lying-in asylum, by Dr. Tarnier. 346

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

GERMANY.

(*South of Nave, Columns 28 to 38.*)

Books, Maps, Engravings, Type.

Educational Systems, Methods, and Libraries.

COLLECTIVE EXHIBIT OF THE BOOK TRADE AND PRINTING INDUSTRIES OF GERMANY.—BOOKS, LITHOGRAPHIC PRINTS, COPPER-PLATE AND XYLOGRAPHIC WORK, MAPS, PHOTOGRAPHS, GRAPHIC, AND OTHER METHODS OF INSTRUCTION, TYPE FOUNDERS' WORK. 300-306

1 Ackermann, Theodore, Munich.—Books with engravings.

2 Amelang, C. F., Leipsic.—Books.

3 André, Joh., Offenbach-on-Main.—Musical publications.

4 Anton, Ed., Halle-on-Saale.—Books.

5 Bach, I. G., Leipsic.—Lithographs.

6 Baedeker, G. D., Essen.—Books.

6*a* Baedeker, J., Iserlohn.—Illustrated books.

7 Baedecker, Carl, Leipsic.—Books.

8 Bauer's Type Foundry, Frankfort-on-Main.—Type, etc.

8*a* Bazar Publishing Co., Leipsic.—Books.

9 Beck, C. H., Nördlingen.—Books, plates, and designs.

10 Bomsdorf, Oscar von, Leipsic.—Maps.

10*a* Brend'amour & Co., Dusseldorf.—Albums.

11 Brandstetter, Friedrich, Leipsic.—Illustrated and other books.

12 Breidenbach & Baumann, Dusseldorf.—Art publications.

13 Breitkopf & Härtel, Leipsic.—Musical classics, catalogue, etc.

14 Brockhaus, F. A., Leipsic.—Books and maps.

15 Back, Leipsic.—Publications.

16 Publishing & Printing House of the Orphan Asylum, Halle-on-Saale.—Books and Bibles.

17 Cohen & Risch, Hanover.—Books on gardening, etc.

18 Costenoble, Hermann, Jena.—Books and maps.

19 Cotta, I. G., Stuttgart.—German classics.

19*a* Official Gazette of the German & Prussian Governments, Berlin.—Volume for 1875.

20 Drugulin, W., Leipsic.—Type and printing.

21 Duncker & Humblot, Leipsic.—Books.

22 Dürr, Alphonse, Leipsic.—Illustrated books.

23 Engelhorn, I., Stuttgart.—Illustrated work on Italy, etc.

24 Engelmann, Wilh., Leipsic.—Books.

25 Ernst & Korn, Berlin.—Plates from architectural works.

26 Eschebach & Schaefer, Leipsic.—Lithographs.

27 Fritzsche & Zschiesche, Leipsic.—Illustrated postage-stamp albums.

28 Hennes, A., Berlin.—Piano forte method.

31 Fischer, Theodore, Cassel.—Publications, plates, and maps.

32 Fleischer, Ernst, Leipsic.—Scientific and school books.

33 Flemming, Carl, Glogau.—Maps, atlases, books, etc.

34 Flinsch Type Foundry, Frankfort-on-Main.—Specimens of printing.

35 Friderichs, R. L., Elberfeld.—Publications.

36 Fries, Hermann, Leipsic.—Books.

37 Fritzsche, Gustav, Leipsic.—Books.

38 Furstenau, Oscar, Leipsic.—Lithographs.

39 Gebhardt, I. M., Leipsic.—Manuals of arts and sciences, etc.

40 Hauboldt, Otto, Leipsic.—Publications.

41 Photographic Association, Berlin.—Picture books.

42 Grunow, F. W., Leipsic.—Publications.

43 Habel, Carl, Berlin.—Publications.

44 Glaser, Louis, Leipsic.—Lithographs in imitation of photography.

45 Grote, G., Berlin.—Illustrated classics and photographs.

46 Grumbach, C., Leipsic.—Illustrated books, pictures, and engravings.

47 Hans, L., Berlin.—Prints and plates.

48 Hartknoch, Joh. Fr., Leipsic.—Books.

49 Hartung, H., & Son, Leipsic.—Books.

50 Haessel, H., Leipsic.—Dictionaries.

52 Hermann, Bernhard, Leipsic.—Lexicon of dates.

53 Heymann, Carl, Berlin.—Books.

54 Hinrichs, I. C., Leipsic.—Publications.

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Books, Printing, Engravings, etc.

54*a* Hirschman, I. M., Offenbach-on-Main.—Labels and signs.

55 Hirt, Ferdinand, Breslau.—School books.

56 Hirt & Son, Leipsic.—Geographical publications.

57 Hirzel, Solomon, Leipsic.—Dictionary and books.

58 Hofmeister, Fr., Leipsic.—Musical publications.

58*a* Hoppe, E., & Co., Berlin.—Chromos.

59 Hunderstund & Pries, Leipsic.—Engravings and prints.

60 Bibliographic Institute, Leipsic.—Classics, books of travel, and maps.

61 Geographical Institute, Weimar.—Atlases, maps, and globes.

62 Photo-lithographic Institute, Weimar.—Maps.

63 Issleib & Rietzschel, Gera.—Atlases, maps, and books.

65 Kaeseberg, Hugo, Leipsic.—Wood cuts.

66 Kafemann, A. W., Dantzic.—Books, etc.

67 Kern, I. U., Breslau.—Books.

68 Kirmayer, Max, Munich.—Map.

69 Klingenberg Bros., Detmold.—Scientific publications.

71 Koehler, Carl, Darmstadt.—Chromo-lithographic views, etc.

72 Kortkampf, Fr., Berlin.—Legal and political books.

72*a* Kressner, L., Wurtzburg.—Surgico-pathological tables.

73 Kratzschmar, Fr., Leipsic.—Lithographs.

74 Langenscheid Publishing House, Berlin.—Dictionaries and school books.

74*a* Leipsic Gazette, Leipsic.—"Leipsic Gazette."

75 Lesimple, Adolf, Mayence.—Books.

76 Leukart, Breslau.—Medical works.

77 Lorck, Carl B., Leipsic.—Books.

78 Lüderitz, C. G., Berlin.—Books.

78*a* Mauke, W., Leipsic.—Housebook.

79 Mayer, Edward Heinrich, Cologne.—Books.

80 Meinhold, C. C., & Sons, Dresden.—Anatomical atlas.

81 Meissner, Otto, Hamburg.—Books.

82 Meissner & Buch, Leipsic.—Lithographs, etc.

82*a* Mentzel, A., Leipsic.—Books.

83 Mey & Widmayer, Munich.—Art publications.

84 Müller, C. Ed., Bremen.—Books.

85 Naumann, C. G., Leipsic.—Job printing.

86 Naumann, Justus, Leipsic.—Biblical pictures.

87 Nicolai's Publishing House, Berlin.—Books.

89 Nitzschke, Wilhelm, Stuttgart.—Atlases.

89*a* Oehmigke's Publishing House, Leipsic.—School books, etc.

90 Paetel Bros., Berlin.—Books.

91 Perthes, Justus, Gotha.—Atlases, etc.

92 Peters, C. F., Bureau de Musique, Leipsic.—Music.

92*a* Polz, E., Leipsic.—Leipsic "Tageblatt."

93 Reimer, Dietrich, Berlin.—Maps, etc.

94 Röder, C. G., Leipsic.—Prints, etc.

95 Rommel, Wilhelm, Frankfort-on-Main.—Illustrated heraldic works.

96 Römmler & Jonas, Dresden.—Prints.

97 Schlegel, Ernst, Aschersleben.—Art plates.

98 Schmidt, H. W., Halle-on-Saale.—Books.

98*a* Schmidt, Heinr., & Günther, Carl, Leipsic.—Books.

99 Schönfeld, G., Dresden.—Books.

101 Schotte & Co., Ernst, Berlin.—Globes, maps, etc.

102 Schreiber, I. F., Esslingen.—Picture books.

103 Schubert & Co., Leipsic.—Music.

104 Seemann, E. A., Leipsic.—Books.

105 Schulz, O. A., Leipsic.—Directory of German book trade.

105*a* Schwann, L., Neuss.—Publications.

105*b* Schulze, Oldenburg.—Books.

106 Siegismund & Volkening, Leipsic.—Educational literature.

108 Soenneken, Fr., Remscheid.—Writing books.

109 Spamer, Otto, Leipsic.—Books.

110 Spemann, W., Stuttgart.—Art works.

110*a* Spiller, Ph., Berlin.—Books.

111 Springer, Julius, Berlin.—Books.

112 Steinhaus, J. F., Bremen.—Bibles.

113 Storch & Kramer, Berlin.—Chromos.

115 Strumper & Co., Hamburg.—Prints.

117 Tauchnitz, Bernhard, Leipsic.—Publications.

118 Tegetmeyer, Ferd., Leipsic.—Wood engravings.

119 Trewendt, Eduard, Breslau.—Books and maps.

120 Velhagen & Clasing, Leipsic.—Illustrated journals, religious works, etc.

121 Veith, J., Carlsruhe.—Art publications.

122 Vogel, F. C. W., Leipsic.—Books.

123 Voss, Leopold, Leipsic.—Books.

123*a* Wachsmuth, F. E., Leipsic.—Animal pictures.

123*b* Waldow, A., Leipsic.—Books and periodicals.

124 Wagner, R., Berlin.—Plates.

125 Wagner, H., & Debes, C., Leipsic.—Plates and maps.

126 Weber, J. J., Leipsic.—Diaries, etc.

128 Weigel, T. O., Leipsic.—German and Latin works.

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Educational Appliances, Scientific and Musical Instruments, Clocks.

129 Westermann, George, Brunswick.—School books.

130 Wiegandt, Hempel, & Parey, Berlin.—Books on agriculture, etc.

131 Wigand, George, Leipsic.—Religious books, atlas, etc.

132 Wigand, Otto, Leipsic.—Dictionaries, year books.

133 Winter, C. F., Leipsic.—Illustrated works.

134 Wolf. Adolph, Dresden.—Illustrated journals and chromos.

135 Zahn, R. von, Dresden.—Books.

136 Zernin, Eduard, Darmstadt.—Works on military science.

---

137 Hermes, Wilhelm, Berlin.—Drawing instructor and studies. 300

139 Grothe, Hermann, Berlin.—Apparatus for instruction in technical schools. 302

140 Loeff, Paul, Berlin.—Books on furnaces, ovens, kilns, etc. 302

141 Raumer, C. v., Warmbrunn, Silesia.—Instruction book for the manufacture of bricks. 302

142 Blankenhorn, A., Carlsruhe.
a Instruction books for wine growing and agriculture. 302
b Enological reviews. 306

143 Keller, Heinrich, Son, Darmstadt.—Herbarium of forest and field grasses. 302

144 Schröder, J., Polytechnic Industrial Institute, Darmstadt.—Models for teaching purposes, drawing appliances. 302

145 Lette Association, Commercial and Trades School, Berlin.—Placard relating to the labors of the Association. 302

146 Stenographibal Society of Stolze, Berlin.—Books, reports, etc. 306

147 Moeser, W., Berlin.—Sundry literary works. 306

148 Bavarian Museum of Arts, Nuremberg.—Publications, communications, etc. 306

Scientific and Philosophical Instruments and Methods.

151 Riefler, Clem., Maria-Rhein, near Kempten.—Mathematical instruments. 320

COLLECTIVE EXHIBIT OF NUREMBERG MATHEMATICAL INSTRUMENT MANUFACTURERS. 320

152 Schoenner, Georg, Nuremberg.

153 Bayer, Jean, Nuremberg.

154 Heisinger, Ludwig, Nuremberg.

---

155 Schultze, G. A., Berlin.—Philosophical apparatus. 321

155*a* Schäffer & Budenberg, Buckan.—Water gauges. 321

156 Sartorius, F., Göttingen.—Analytical scales. 322

COLLECTIVE EXHIBIT OF THE BLACK FOREST CLOCK MANUFACTURERS. 323

157 Lenzkirch Joint Stock Co., Lenzkirch.

158 Schwer, Benedict, jr., Triberg.

159 Haas, Ph., & Sons, St. Georgen.

160 Wehrle, Em., & Co., Furtwangen.

161 Kaltenbach, Leo, Furtwangen.

162 Ketterer, B., Sons, Furtwangen.

163 Bob, Lorenz, Furtwangen.

164 Beha, J. Bapt., & Sons, Eisenbach.

165 Weishaupt & Fleig, Villingen.

166 Feser, Paul, Villingen.

167 Maurer & Höfler, Eisenbach.

168 Zimber, J., Furtwangen.

---

169 United Clockmakers of Glashütte, Saxony.—Clock parts. 323

170 Becker, Gustav, Freiburg, Silesia.—Regulators. 323

171 Felsing, Conrad, Berlin.
a Regulators, etc. 323
b Music boxes, melodeons. 327

172 Hadank & Son, Hoyerswerda, Upper Lausitz.—Steeple clock and bell. 323

173 Lange, A., & Sons, Glashütte, Saxony.—Watches and watch parts. 323

174 Voigtlaender & Son, Brunswick.—Photographic objectives, opera glasses, field glasses, and telescopes. 324

174*a* Hirschmann, W. A., Berlin.—Electrical apparatus for medical use. 325

175 Joint Stock Co. for Telegraph Supplies, Berlin.—Materials for insulators. 326

COLLECTIVE EXHIBIT OF MUSICAL INSTRUMENTS AND STRINGS. 327

176 Pfretzschner, G. A., Markneukirchen, Saxony.

177 Bauer, Albin, jr., Markneukirchen, Saxony.

178 Paulus & Schuster, Markneukirchen, Saxony.

181 Glier, K. A., jr., Markneukirchen, Saxony.

182 Adler, Richard, Markneukirchen, Saxony.

183 Kämpffe, Gustav, Markneukirchen, Saxony.

184 Paulus, Ernst, Markneukirchen Saxony.

185 Paulus, August, Markneukirchen Saxony.

COLLECTIVE EXHIBIT OF MOUTH HARMONICAS. 327

187 Bilger, Chr., Trossingen.

188 Hohner, Math., Trossingen.

189 Koch, Andreas, Trossingen.

190 Messner & Co., Trossingen.

191 Hotz, Fr., jr., Knittlingen.

192 Jäger, Gottlob, Knittlingen.

193 Jäger, Joshua, Knittlingen.

---

194 Müller, C. A., Unterwiesenthal.—Gutstrings. 327

196 Euler, A. A., Frankfort-on-Main.—Clarionets, flutes, etc. 327

197 Pfaff, F., Kaiserslautern.—Brass and wood instruments. 327

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Musical Instruments, Statistics, Coins.

198 Stratton, John F., & Co., Gohlis, near Leipsic.—Violins, etc. 327

199 Altenburg & Graue, Bremen.—Piano. 327

200 Blüthner, Julius, Leipsic.—Concert grand piano and pianino. 327

202 Ibach, Rudolpe, & Son, Barmen.—Concert grand piano and piano. 327

203 Kaps, Ernst, Dresden.—Concert grand piano. 327

204 Neumann, F. L., Hamburg.—Piano. 327

206 Schiedmayer, J., Stuttgart.—Concert grand piano and harmoniums. 327

209 Schwechten, G., Berlin.—Pianos. 327

210 Seiler, Edward, Liegnitz.—Piano. 327

210*a* Stahlecker, C. F., Stuttgart.—Metal piano. 327

211 Gläsel, Moritz, Marknenkirchen.—Guitars, citherns, violins, etc. 327

212 Haslwanter, J., Munich.—Citherns. 327

213 Tiefenbrunner, Georg, Munich.—Citherns. 327

214 Walcker, E. F., & Co., Ludwigsburg.—Church organ. 327

215 Welte, M., & Sons, Freiburg.—Orchestrion. 327

216 Trayser, Ph. I., & Co., Stuttgart.—Cabinet organs. 327

217 Geyer, W. & Ed., Bros., Eisenberg.—Buckskin for piano manufacturers' use. 327

217*a* Schlessinger & Lummer, Gera.—Leather for piano manufacturers' use. 327

217*b* Pohlmann, Moritz, Nuremberg.—Piano strings. 327

217*c* Huber Bros., Pirmasens.—Hand organ. 327

Engineering, Architecture, Maps, etc.

217*d* Royal Prussian Ministry of Commerce, Trade, and Public Works, Berlin.—Books, statistical tables, and geological maps. 335

Physical, Social, and Moral Condition of Man.

218 Jungfer, A., Berlin.—Coins and commemorative medals. 344

219 Central Committee of the German Associations for the Aid of Wounded and Sick Soldiers in War, Berlin.—Reports, and album of objects exhibited at Vienna in 1873 by the "Red Cross." 346

220 Central Committee of the Bavarian Association for nursing and aiding Wounded and Sick Soldiers in time of War.—Model of a fully-dressed and equipped member of the corps. 346

221 Directors of the Badish National Aiding Association, Carlsruhe.—Photographs of scenes in hospitals; magazines, etc. 346

222 Association of the Circuit and Town of Altona for nursing Sick and Wounded Soldiers, Altona.—Model of a hospital. 346

223 Zuelzer, Dr., Berlin.—Model of a hospital and ventilating apparatus, and sanitary statistics of Germany for 1872-74, etc. 346

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45

AUSTRIA.

(*South of Nave, Columns 23 to 28.*)

Educational and Engineering Appliances, Scientific Instruments.

Educational Systems, Methods, and Libraries.

1 Municipality of Vienna.—Photographs of objects pertaining to education. 300

2 Fuchs, John Bapt., Emmerich, Gaming.—Artistic penmanship. 300

2*a* Delhez, Constantine, Vienna.—Gymnastics of the senses. 300

3 Brunn, Dr., Vienna.—Plaster cast of the human face. 302

5 Politzer, Adam, Vienna.—Anatomical, pathological preparations of the organs of hearing. 302

8 Pechar, John, Teplitz, & A. Peez, Vienna.—Statistics of the import, export, and consumption of cotton in Austria in 1871. 305

9 Lehmann, Adolf, Vienna.—Residence and business directory. 306

Institutions and Organizations.

11 Schmitt, Hans, Vienna.—Piano study and compositions. 313

Scientific and Philosophical Instruments and Methods.

13 Kraft, E., & Son, Vienna.—Mathematical instruments. 320

14 Kreidl, Alois, Prague.—Chemical and physical apparatus for schools. 320

15 Kreuter, Franz, Brunn.—Tachometer, distance poles, leveling poles. 320

16 Lenoir & Forster, Vienna.—Chemical, physical, and mineralogical apparatus. 320

17 Paugger, F., Trieste.—Nautical instruments. 320

18 Florenz, Joseph, Vienna.—Scales and balances, gold and silver precision balances, balance scales, table balances. 322

19 Schmidt, John, Vienna.—Measuring and regulating apparatus for petroleum. 322

22 Richter, C.W., Oedenburg.—Optical instruments, spectacles. 324

23 Plossl, S., & Co., Vienna.—Mechanical and optical instruments. 324

24 Kiendl, A., Vienna.—Ciherns. 327

25 Cervény, V. F., Koniggratz.—Musical instruments of wood and metal. 327

26 Bohland & Fuchs, Graslitz.—Metal instruments. 327

27 Fuchs, Daniel, Vienna.—Metal instruments. 327

29 Farsky, John F., Pardubitz.—Wind instruments. 327

31 Lausmann, John W., Linz.—Wood and metal wind instruments. 327

34 Placht Bros., Vienna.—Musical instruments. 327

37 Stecher, Karl, Vienna.—Musical wind instruments. 327

38 Thie, William, Vienna.—Mouth musical instruments. 329

40 Kirchner Bros., Vienna.—Guitar and violin strings. 327

41 Robitsek, H., Vienna.—Mouth musical instruments. 327

Engineering, Architecture, Maps, etc.

COLLECTIVE EXHIBIT OF ENGINEERING AND ARCHITECTURAL PHOTOGRAPHS, MODELS, DESIGNS, REPORTS, AND PLANS. 330 *to* 335

42 Vienna Building Association, Vienna.

43 Battig, Anton, Chief Engineer of the State Railroad Co., Vienna.

44 Bayer, Rudolph, Vienna.

45 Bomches, Fred., Trieste.

46 Claus, Heinrich & Gross, Vienna.

47 Fellner, Fred., & Hermann Helmer, Vienna.

47*a* Friedmann, Alex., Vienna.

48 Doderer, Wilh., Vienna.

49 Danube Regulation Commission, Vienna.

49*a* Helmer, Hermann, Vienna.

50 Dorfel, Julius, Vienna.

51 Hornig, Dr. Emil J. R., Vienna.

51*a* Rziha, Franz, Vienna.

52 Ferstel, Heinr. Ritter von, Vienna.

53 Flattich, Wilh., & Wilhelm Franz, Vienna.

54 Schmidt, Heinrich, Inspector-General of the State Railroad Co., Vienna

55 Forster, Emil Ritter von, Vienna.

56 Fraenkel, Wilh., Vienna.

57 Gaertner, Ernst, Vienna.

58 Gross, E., Vienna.

59 Hansen, Theopil Ritter von, Vienna.

60 Hintrager, Moritz, Vienna.

61 Hlubek, Peter, Vienna.

62 Holder, Alfred, Vienna.

63 Schmoranz, Franz, Vienna.

64 Klein Bros., Vienna.

65 Klunzinger, Paul, in Belinzona.

66 Delhez, Constantine, Vienna.

67 Lazar, Adolph, Vienna.

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp 27–45.

Engineering Designs, Commercial and Industrial Statistics.

68 Lehmann & Wentzel, Vienna.
69 Loh·, August Ritter von, Vienna.
70 Frankl, Lud·vig August, Vienna.
71 Morawitz, Moriz, Vienna.
73 Obach, Theodore, Vienna.
74 Paradeiser, W., Pola.
75 Neitsche, R., Olmütz.
76 Popovits, Lazar, Marchegg.
77 Schachner, Friedrich, Vienna.
78 Rumpelmayer, Victor, Vienna.
79 Schlimp, Carl, Vienna.
80 Schmidt, Friedr., Vienna.
81 Schmidt, Heinrich, Vienna.
82 Schmoll, Adolph von, Eisenwerth.
83 Schon, John George, Brunn.
84 Schrabetz, Emil, Vienna.
85 Serres, August de, Vienna.
86 "Stadtbauamt of Vienna."
87 Tilp, Emil, Vienna.
88 Pechar, Johann, Teplitz.
90 Waldheim, R. von, Vienna.
91 Wentzel, Vienna.
93 Wilhelm, Franz, Vienna.
94 Winkler, Dr. Emil, Vienna.

95 Bader, F. W., Vienna.—Design of the city of Vienna. 335

Physical, Social, and Moral Condition of Man.

96 Commission in Vienna for the Philadelphia Exhibition, Vienna.—Graphical representation of the productions and foreign commerce of Austria, of its savings banks, etc. 343

96*a* Frankl, Lewis A., Vienna.—Plans and descriptions of the Institute for the Blind in Vienna. 346

97 First Ordinary Civil Social Union of the Austro-Hungarian Monarchy, Vienna.—Representation of the activity and development of co-operative union of the Austro-Hungarian monarchy. 347

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

SWITZERLAND.

(*North of Nave, Columns 52 to 55.*)

Books, Educational Appliances, Statistics.

Educational Systems, Methods, and Libraries.

1 **Board of Education of the Canton** of Appenzell Ausserrhoden.—Laws and regulations, books, maps, and plans. 300

2 **Board of Education of the Canton** of Basle City.—Annual accounts of the department of public instruction, reports and prospectus of the schools, school-books, plans of the Bernoullianum, special schools. 300

3 **Board of Education of the Canton** of Berne.—Obligatory and facultative text books and apparatus used in elementary and higher schools, laws and regulations, reports and plans. 300

4 **Board of Education of the Canton** of Fribourg.—Laws and regulations, books, maps, and plans. 300

5 **Board of Education of the Canton** of Geneva.—Obligatory and facultative text books and apparatus used in elementary and higher schools, laws and regulations, reports and plans. 300

6 **Board of Education of the Canton** of Lucerne.—Laws and regulations, books, maps, and plans. 300

7 **Board of Education of the Canton** of Neuchâtel.—Laws and regulations, books, maps, and plans. 300

8 **Board of Education of the Canton** of Solothurn.—Laws and regulations, books, maps, and plans. 300

9 **Board of Education of the Canton** of Zurich.—Obligatory and facultative series of books and apparatus used in elementary and higher schools, models and maps for instruction in drawing, laws and regulations, reports and plans. 300

10 **Kindergarten, St. Gallen.**—Collection of work and employments for children; "the education of children according to Fröbel's principles," by J. Wellauer, director of the orphan asylum St. Gallen, 1872, annual reports, statutes, and prospectus. 300

11 **Beust, F., Hottingen, near Zurich.**—Educational system, constructive method, for children of five to twelve years, text books, maps, models, apparatus, and pupils' work in mathematics, geography, and natural history. 300

12 **Zollikofer Female Seminary,** Romanshorn, Ct. Thurgau.—Publications, manuscripts, album of works executed by pupils. 300

13 **Bachmann, Franz., Winikon, Ct.** Lucerne.—Intuitive principle of instruction, tables and appliances. 300

14 **Ferri, Felix, Lugano, Ct. Tessin.**—Tables and album for the drawing of architectural ornaments. 300

15 **Ganz, J., Zurich.**—Photographs of microscopic preparations for instruction in natural sciences. 300

16 **Hindermann & Siebenmann, Zurich.**—Illustrations for little children, M. Staub's method. 300

17 **Götzinger, Dr. E., St. Gallen.**—Systematic course of topographical drawing. 300

18 **Hofer, J. J., Zurich.**—Korrodi's copy writing-books. 300

19 **Kaiser, Dr., St. Gallen.**—Table for instruction in chemistry. 300

20 **Keller, Heinrich, Zurich.**—Large school map of Switzerland. 300

20*a* **Lussy, Mathis, Stanz, Ct. Unterwalden.**—Systematical course for musical studies. 300

21 **Unterstrass Modeling School,** near Zurich.—Pupils' work in modeling. 300

22 **Paroz, J., Peseux, Ct. de Neuchatel.**—History of pedagogy, elementary instruction, intuitive multiplication table, table for the learning of fractions. 300

23 **Rikli, Carl, Wangen, Ct. Berne.**—Historical and chronographical tables. 300

24 **Stierlin, Dr. R., Lucerne.**—Model of the glacier garden at Lucerne. 300

25 **Steidinger, J., Therwyl, Ct. Basle-Land.**—Writing-copies for the French ronde. 300

26 **Zwicky-Laager, C., Mollis, Ct.** Glarus.—Atlas of drawings for elementary schools. 300

27 **Largiadèr, Rorschach, Ct. St. Gallen.**—School-bench with movable reading-desk. 300

28 **Saint George, W. H., de Nyon, Ct.** de Vaud.—Treatise on the construction and hygiene of school-houses. 300

29 **Agricultural & Professional Colony** of Suisse romande, Serix, near Oron. Ct. de Vaud.—Statutes. 302

30 **Free School for Apprentices, St.** Gallen.—Report of the institution, selection of pupils' work. 302

31 **Industrial School Association, Zu**rich and vicinity.—First report, 1875. 302

32 **Asylum for Girls, B. Rittmeyer &** Co., St. Gallen.—Reports, 1869–1873. 302

33 **Dairy Station, Lausanne, Mont** Riond, Canton de Vaud.—Collection of writings on dairying and on Alpine cultivation. 302

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

34 Drawing School of the Board of Trade, St. Gallen.—Competition works of pupils, album of drawings by pupils, school report. 302

35 Blind Asylum, Lausanne, Ct. Vaud.—General regulations, Lausanne, 1864; reports, 1873–1874. 302

36 Private Blind Asylum, Berne.—Statutes, Berne, 1874; constitutional report, 1862; annual reports, 1861 to 1874. 303

37 Deaf & Dumb Asylum, Canton Vaud, Moudon.—Regulations, 1874. 303

38 Institution for Deaf Mutes, Aarau, Ct. Aargau.—Report, 1874. 303

39 Institution for Deaf Mutes, Riehen, near Basle.—Prospectus, reports, and accounts, 1874; list of lessons, 1875–1876; view of the establishment; travels, by G. Jörgensen; courses of study and appliances of instruction. 303

40 Institution for Deaf Mutes, St. Gallen.—Statutes of the Society for the Education of Deaf and Dumb Children, annual reports, 1873–1875. 303

41 Institution for Feeble-minded Children, Weissenheim, near Berne.—Annual reports, Berne, 1869 and 1872. 303

42 Federal Statistical Office.—Statistics of public instruction in Switzerland, by H. Kinkeline. 304

43 Federal Polytechnical School, Zurich.—Report on the organization, laws, and regulations, plans of the localities. 304

44 Christen, J. J., Aarau.—Manuals for instruction, school books. 306

45 Dalp, J., Berne.—Manuals for instruction, school books. 306

46 Hitz, Chur, Ct. Graubünden.—Manuals for instruction, school books. 306

47 Huber, Jacques, Frauenfeld.—Pedagogical reviews, school books, drawing, musical works, agricultural instruction. 306

48 Meisel, C. J., Herisau, Ct. Appenzell, Inner Rhodes.—Manuals for instruction, school books. 306

49 Orell, Füssli, & Co., Zurich.—Manuals for instruction, school books. 306

50 Sauerländer, H. R., Aarau, Ct. Aargau.—Manuals for instruction, school books. 306

51 Scheitlin & Zollikofer, St. Gallen.—Collection of manuals, books of instruction, maps. 306

52 Shulthess, Friedr., Zurich.—Manuals for instruction, school books. 306

52*a* Sonderegger, Y. Y., St. Gallen.—Manuals for instruction. 306

Institutions and Organizations.

53 Federal Statistical Office.—The savings banks of Switzerland, by J. L. Spyri, statistics of the newspapers in Switzerland, by Kinkelin; history of the schools of the Canton of Berne, by J. J. Kummer. 311

54 Swiss Geodetical Commission.—Determination of longitudes, determination of pendulum-lengths, leveling of Switzerland. 311

55 Swiss Geological Commission.—Geology and geological maps of Switzerland. 311

56 Swiss Meteorological Commission.—Meteorological observations. 311

57 Swiss Statistical Society.—The mutual relief societies of Switzerland in 1865, by H. Kinkelin; the public libraries in Switzerland in 1868, by E. Heitz. 311

58 Swiss Society for the Advancement of Natural Philosophy.—New memoirs, minutes, and reports history of the society, statutes, list of members. 311

59 Swiss Historical Society.—List of documents on Swiss history, archives of Swiss history, indicator for Swiss history (informer). 311

60 Swiss Alpine Club.—Annual reports, itineraries, maps. 311

61 Association of the Canton of Aargau for the Advancement of Natural Philosophy.—The scarcity of water in the Canton of Aargau, paper read at the 500th session, map of erratic blocks. 311

62 Historical Society, St. Gallen.—Reports, annual papers. 311

63 Society for the Advancement of Natural Philosophy, Basle.—Proceedings 1867–1873, paper read at the 50th anniversary. 311

64 Society for the Advancement of Natural Philosophy, Berne.—Proceedings 1843–1874. 311

65 Society for the Advancement of Natural Philosophy of the Canton of Graubünden.—Annual reports, statutes, papers on natural sciences. 311

66 Society for the Advancement of Natural Philosophy of the Canton of St. Gallen.—Reports and proceedings 1858–1874, and speech at the 50th anniversary by Dr. Wartmann. 311

67 Observatory, Neuchatel.—Reports and divers papers, photographs of astronomical instruments. 311

Scientific and Philosophical Instruments and Methods.

68 Gysi, Fr., Aarau, Ct. Aargau.—Complete collection of mathematical drawing instruments. 320

69 Herman & Pfister, Berne.—Polaristrobometers, hair-hygrometers, metallic thermometer. 320

70 Hipp, M., Neuchatel.
- *a* Chronoscope and chronograph with auxiliary apparatus. 320
- *b* Registering apparatus. 321
- *c* Regulators, tower, double dial, and electric clocks. 323
- *d* Telegraph apparatus, Morse's system. 326

71 Kern, J., Aarau, Ct. Aargau.—Swiss drawing instruments, transits, theodolites, leveling instruments. 320

72 Amsler-Laffon, J., Schaffhausen.—Planimeters, integrators, Woltmann's current meter with electrical indication. 321

73 Aebi & Landry, Madretsch, near Bienne, Ct. de Berne.—Watches and pieces showing the successive phases of the fabrication. 323

74 Watch-makers' Union (J. B. Gondy & Co.), Chaux-de-Fonds, Ct. Neuchâtel.—Gold and silver watches. 323

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Watches, Jewelry, Musical Instruments, Engineering Designs.

75 **Antony-Bovy, J. E., Chaux-de-Fonds, Ct. Neuchâtel.**—Watch-hands, stems, rings, detached parts for stem-winders, steel cogwheels. 323

76 **Aubert Bros., Savagnier, Ct. Neuchâtel.**—Springs for watches. 323

77 **Audemars, Ls., Brassus, Ct. Vaud.**—Watches and chronometers. 323

78 **Badollet, J. M., & Co., Geneva.**—Watches and pocket chronometers. 323

79 **Bæhni Bros., Bienne, Ct. Berne.**—Hairsprings of steel, tempered. 323

80 **Berlie, Edouard, Geneva.**—Lamina of hardened steel for lithographic pens and springs of watches. 323

81 **Besancet-Blanc, Eug., Travers, Ct. Neuchâtel.**—Ruby jewels for watches, cap jewels, jeweling of a repeating watch, two bridges with jewels set in gold, duplex rollers, English style; impulse jewels for chronometer escapements, cylinders and plugs. 323

82 **Bitterlin-Schmidt, J. B., Locle, Ct. Neuchâtel.**—Precious stones and jewels for jewelers and watch manufacturers, diamant powder. 323

83 **Borel & Courvoisier, Neuchatel.**—Chronometers, watches, and movements of watches. 323

84 **Breting Bros., Locle, Ct. Neuchâtel.**—Pocket chronometers, lever escapement, spring, with Philipp's system of double-curve. 323

85 **Fleischmann, Fritz, Piguet, & Co., Geneva.**—Tempered steel for spirals. 323

86 **Huguenin, A., & Son, Locle, Ct. Neuchâtel.**—Watches, chronometers, and detached pieces. 323

87 **Colliot Désiré, St. Imier, Ct. Berne.**—Silver watches. 323

88 **Corcelle, J., & Co., Geneva.**—Enamel watch-dials. 323

89 **Didisheim, Gabriel, St. Imier, Ct. Berne.**—Watches. 323

90 **Ducommun, D., Gorgier, Ct. Neuchâtel.**—Movements of watches, stem-winders and key-winders. 323

91 **Dufaux, Lutz, & Son, Geneva.**—Watch spirals. 323

92 **Ekegrén, Hr., Geneva.**—Chronometers. 323

93 **Favre Bros., Neuveville, Ct. Berne.**—Watches of silver and German silver. 323

94 **Francillon, Ernest, & Co., St. Imier, Ct. Bernei (Longines Watch Co.).**—Watches, watch movements, detached pieces for key and stem-winders. 323

95 **Frankfeld, Louis, & Co., Geneva.**—Chronographs, star-watches, movements, patent stem-winders. 323

96 **Grandjean, Hry., & Co., Locle, Ct. Neuchâtel.**—Marine and pocket chronometers, watches. 323

97 **Grandjean-Perrenoud, Henry, Chaux-de-Fonds, Ct. Neuchâtel.**—Engravings for watches. 323

98 **Honegger, G., Bienne, Ct. Berne.**—Movements of platina, nickel, and parts of watches. 323

99 **Humbert, Ernest, Locle, Ct. Neuchâtel.**—Watches. 323

100 **Jacot Bros., Locle, Ct. Neuchatel.**—Pocket chronometers. 323

101 **Jeanjaquet, Chs., Neuchatel.**—Springs for watches, steel for lithographic pens. 323

102 **Klein, E., Geneva.**—Springs for watches. 323

103 **Ingold, P. F., Chaux-de-Fonds, Neuchâtel.**—Cutters for giving the teeth of watch wheels the true form. 323

104 **Martin, Ch., & Co., Geneva.**—Geneva watches, stem-winders. 323

105 **Matile, H. Ls., Locle, Ct. Neuchatel.**—Precision watches. 323

106 **Leuenberger & Son, Summiswald. Ct. Berne.**—Clocks and regulator. 323

107 **Montandon, C., Gentil-Lutz, Servette, near Geneva.**—Tempered steel for spirals. 323

108 **Nardin, James, Locle, Ct. Neuchatel.**—Pocket chronometers, precision watches. 323

110 **Patek, Philippe, & Co., Geneva.**—Pocket chronometers and watches. 323

111 **Perrenoud, Aimé, Terreaux, Geneva.**—A constant force escapement for chronometers, assortment of spirals of gold and tempered steel. 323

112 **Perret's, D., Son, Neuchatel.**—Watches. 323

113 **Rauss, Ami, Geneva.**—Enameled dials for watches. 323

114 **Rigtrup, R. S., Locle, Ct. Neuchâtel.**—New mechanism for Lepine watches without fusee. 323

117 **Stahl, Maurice, Chaux-de-Fonds, Ct. Neuchâtel.**—Chronometers and watches. 323

118 **Taglieb, Carl, Zurich.**—Watch in a finger-ring. 323

119 **Jaques, Adank J., & Co., Ste. Croix, Ct. Vaud.**—A musical box, mandoline, with zither. 327

120 **Brémond, B. A., Geneva.**—Musical boxes. 327

121 **Karrer & Co., Teufenthal, Ct. Aargau.**—Musical boxes and fancy articles. 327

122 **Karrer, S., Teufenthal, Ct. Aargau.**—Musical boxes. 327

123 **Paillard, C., & Co., Ste. Croix, Ct. Vaud.**—Musical boxes with voc[illegible] attachments. 27

125 **Trost, J., & Co., Zurich.**—Upright piano forte. 327

(Machines and tools pertaining to watch-making are also exhibited in this department, but classified under Class 535.)

Engineering, Architecture, Charts, Maps, etc.

127 **Building Department of the Canton of Basle-Stadt.**—Plans for the enlargement of the city of Basle. 330

128 **Building Direction of the Canton of Aargau.**—System of roads, wooden bridges, canals, water-power. 330

129 **Building Inspection of the Canton of Graubünden.**—Correction of the Rhine in the Grisons. 330

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Engineering and Architectural Designs.

130 Department of the Interior, Swiss Confederation, Berne.—Measures taken to correct and regulate the rivers and waters of Switzerland. 330

131 Department of Public Works, Canton of Vaud.—Public works, cost of various roads, drawings of objects of art. 330

132 Department of Public Works of the Canton of Berne.—Plans, maps, atlases, literary works, bridges for public roads, correction of rivers of the Jura mountains. 330

133 Swiss Society of Engineers & Architects.—The Swiss system of roads, iron bridges, water supply and canalization in Swiss towns. 330

134 Municipality of Chaux-de-Fonds, Ct. Neuchâtel.—Plans of the town of La Chaux-de-Fonds, 1794-1841, and for its enlargement. 330

135 Government of the Canton of St. Gallen.—System of roads and highway bridges, correction of the Rhine. 330

136 Rothenbach, Director of the City Gas and Water Works, Berne.—Gas works of Berne. 330

137 Rieter, Joh. Jacob, & Co., Winterthur, Ct. Zurich.—Photographs of turbines, with accessories, and of wire-rope transmissions. 331

138 Weissenbach, W. C. E., Zurich.—The water-powers of Switzerland. 331

139 Department of Railroads & Commerce, Swiss Confederation, Berne, Bureau of Statistics.—Statistics of Swiss railways. 332

140 Department of Railroads & Commerce, Swiss Confederation, Berne, Scientific Bureau.—Standard drawings, forming part of the government regulations for Swiss railways. 332

141 Department of Railroads & Commerce, Swiss Confederation, Berne, Gothard Inspection.—Report of the Gothard railway, geological tables and sections. 332

142 Railroads of Jura-bernoise.—Photographs of railway works, general plan and longitudinal sections, railway construction, Zimmeregg tunnel. 332

143 Gothard Railway Co.—Longitudinal sections of the line and tunnel, plans, collection of specimens of the most important rocks found in the great tunnel. 332

144 Swiss Society of Engineers & Architects.—Development and longitudinal sections of the Swiss railways. 332

145 Swiss National Railway Co., Winterthur, Ct. Zurich.—Drawings of bridges. 332

146 Swiss Northeast Railway Co., Zurich.—Plans, photographs, etc., of railway construction, its lines, rolling stock, etc. 332

147 Swiss Locomotive & Machine Works, Winterthur, Ct. Zurich.—Photographs of locomotives. 332

48 Tobler, Chief Engineer of the Utliberg Railway, Zurich.—Description and drawings of the Utliberg railway and its rolling stock. 332

149 Tössthal Railway, Winterthur Ct. Zurich.—Surveys and plans, sections bridges, carriages with two stories etc. 332

149*a* United Railroads of Switzerland.—Plans for railroads across the Splügen and the Lukmanier passes. 332

150 Würthenau, Von, Chief Engineer of the Swiss Central Railway, Basle.—Plans and drawings for the construction of the new lines. 332

151 Department of Forests & Streams, Canton Berne.—Plans of the new military buildings at Berne. 332

152 Federal Topographical Bureau.—Maps and atlases of Switzerland. 335

152*a* Beck, Edward, Bern.—Relief map of Switzerland and the Jura. 335

153 Leuzinger, R., Berne.—Section of "Grono," from the topographical atlases of Switzerland. 335

154 Wurster, Randegger, & Co., Winterthur, Ct. Zurich.—Atlases and maps, scientific works on geography and natural history. 335

Physical, Social, and Moral Condition of Man.

156 Brunner, Ad. & Fr., Zurich.—Centralhof at Zurich (reconstruction of the old post-office sketches and photographs of Swiss villas). 342

159 Department of Public Works, Canton Berne.—Plans of new, and photographs of existing public buildings. 342

161 Gladbach, Professor at the Federal Polytechnic School, Zurich.—Wood architecture of Switzerland. 342

162 Goss, J. E., Geneva.—Plans of the theatre in Geneva. 342

163 Guyer, Eduard, Zurich.—Modern hotels, their architecture, arrangement, and management. 342

164 Hartmann, Nicolaus, St. Moritz, Ct. Graubünden.—Plans of the villa Schickler in St. Moritz (Engadin), plans of Hof St. Moritz and of the hotels du Lac and Victoria. 342

166 Jeuch, Caspr., Baden, Ct. Aargau.—Plans of the barracks in Aarau. 342

167 Jung, E., Winterthur, Ct. Zurich.—Photographs and ground plans of existing dwellings. 342

168 Koch, Alex., Zurich.—Plans for private residences and a school-house. 342

169 Maring, Basle.—Plans of the hall for the federal singing festival, 1875. 342

171 Moser, Robert, Baden, Ct. Aargau.
a Churches. 342
b Houses of correction. 343

172 Municipality of Geneva.—Gallery Rath, school-house at Geneva. 342

173 Parquetry Factory, Interlaken, Ct. Berne.—Plans of Swiss cottages. 342

175 Town Council of Winterthur.—Plans of the town hall. 342

176 Stehelin, Basle.—Plans of the theatre and Bernoullianum in Basle. 342

178 Zurich Joint Stock Co. (Benevolent society for cheap dwellings).—Plans of cheap dwellings. 342

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp 27-45

Architectural Designs, Reports, Statistics.

179 **Kunz, Heinrich, Zurich** (Cotton Manufactories).—Workmen's dwellings at his cotton mill at Windish. 342

180 **Rieter, Joh, Jacob, & Co., Winterthur, Ct. Zurich.**—Workmen's dwellings. 342

181 **Rittmeyer, B., & Co., St. Gallen.**—Workmen's dwellings. 342

182 **Sarasin & Co., Basle.—Workmen's** dwellings. 342

183 **Sulzer, Bros., Winterthur, Ct. Zurich.**—Workmen's dwellings. 342

184 **Direction of the Zoological Gardens at Basle.**—Plans of the zoological garden in Basle. 342

185 **Swiss Society for Penitentiary Reform.**—Plans and views of the principal houses of correction in Switzerland, regulations of organization, documents upon the management of prisons. 345

186 **Swiss Society for Promoting the Public Welfare.**—History, Swiss periodical for public utility. 346

186*a* **Society for the Education of the Poor, Lenzburg, Ct. Aargau.**—Reports and statutes. 346

187 **Society for Promoting the Public Welfare, Ct. Appenzell, Inner Rhodes.**—Annual reports. 346

187*a* **Ernst, Heinrich, Zurich.**—Plans of the children's hospital at Zurich. 346

188 **Society for Promoting the Public Welfare, Basle.**—Historical reports, statutes, and pamphlets. 346

188*a* **Evangelic Missionary Association, Basle.**—Annual report. 346

189 **Society for Promoting the Public Welfare, Ct. Glarus.**—Reports. 346

190 **Society for Promoting the Public Welfare, Ct. St. Gallen.**—Proceedings. 346

190*a* **Aid Society, Herisau, Ct. Appenzell.**—Reports and statutes. 346

191 **Society for Promoting the Public Welfare, Canton Zurich.**—Statutes, reports, catalogue of popular works. 346

192 **Geneva Society for Public Utility.**—Proceedings, reports. 346

192*a* **Richter-Linder's Institute, Schoren, near Basle.**—Report on the house of refuge. 346

193 **Vaudoise Society for Public Utility.**—Reports. 346

193*a* **Swiss Reformatory Institute for boys, Bächtelen, near Berne.**—General report. 346

194 **Department of the Interior, Swiss Confederation, Federal Statistical Office.**—Statistics of the Swiss establishments for the education of orphans and abandoned children, also for the deaf, dumb, and blind, by J. Wellauer and J. Müller. 346

195 **Swiss Society for Instructing the Poor.**—Descriptions of the asylums for the poor, minutes, report of the Society of Teachers for the Poor. 346

196 **Society for Instructing the Poor, District of Aarau, Ct. Aargau.**—Statutes, programmes, contracts, annual reports. 346

196*a* **Building Direction, Canton Aargau.**—Plans of the lunatic asylum at Königsfelden. 346

197 **Institution for Instructing the Poor, Canton Basle-Land.**—General report. 346

197*a* **Department of Public Works of the Canton Vaud.**—Plans of the lunatic asylum at Lausanne. 346

197*b* **Department of Public Works, Canton Zurich.**—Plans of the lying-in hospital at Zurich. 346

198 **Institution for Instructing the Poor, Zurzach District, Ct. Aargau.**—Statutes, annual reports. 346

199 **Home Industry Society for Zurich and Vicinity.**—Report, statutes, regulations. 346

200 **Aid Society, St. Gallen.**—Annual reports. 346

201 **Aid Society, Zurich.**—Reports, etc. 346

202 **Mutual Aid Society, Val de Travers, Ct. de Neuchâtel.**—Statutes, regulations, general report. 346

203 **Wellauer, J., St. Gallen.**—Report of the Society for the Education of the Poor, Swiss schools for the poor, by J. C. Zellweger. 346

204 **Blösch, Eduard, Berne.**—Reports of his orphan asylum in Klein-Wabern, Berne. 346

205 **Orphan Asylum, Neuchatel.**—Reports, contracts, formulas; notes about Belmont. 346

206 **Orphan Asylum, Daillens-Cossonay-Penthaz, Ct. Vaud.**—Regulations and reports. 346

207 **French Orphan Asylum, Wabern, Ct. Berne.**—Report. 346

208 **Orphan Asylum, Basle.**—Description and history, annual reports, publications, plans, and views. 346

209 **Orphan Asylum, St. Gallen.**—The orphan asylum in St. Gall by F. von Tschudi, reports, statutes, plans of buildings, etc. 346

210 **City Orphan Asylum, Zurich.**—Reports, statutes, regulations, photographs, samples of pupils' clothing. 346

211 **Aargau Reformatory, Olsberg, Ct. Aargau.**—Reports. 346

212 **Grube Institution for Instructing** the Poor, Ct. Berne.—Specimens of pupils' work. 346

213 **Institution for Instructing Poor Girls, Steinhölzli, near Berne.**—Report, 1874. 346

214 **Hosang Foundation, School for** the Poor, near Chur.—Regulations for the admission of pupils into the establishment. 346

215 **Bundner Reformatory, Foral, near** Chur, Ct. Graubünden.—Annual reports of the orphan asylum. 346

216 **Friedeck Reformatory Home,** Buch, Hegau, Ct. Schaffhausen.—Historical report, specimens of pupils' work. 346

217 **Swiss Reformatory, Sonnenberg,** near Lucerne.—Statutes, circulars, reports, specimens of pupils' work, etc. 346

218 **Toggenburg Reformatory, Hochsteig,** near Wattwyl, Ct. St. Gallen.—Statutes, annual reports. 346

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

219 Victoria Institute for Poor Girls of the Canton of Berne, Klein-Wabern, near Berne.—Regulations for admission, organization, report. 346

219a Young Merchants Union of Switzerland.—General report of proceedings. 347

Sculpture.

220 Abegglen-Perrin, Iseltwald, Ct. Berne.—Chalets, with and without music and clocks. 405

221 Abplanalp, J., Brienz, Ct. Berne.—Wood-carvings. 405

222 Baumann, A., Vater & Son, Brienz, Ct. Berne.—Wood-carvings. 405

223 Bergen, C., von, & Co., Interlaken, Ct. Berne.—Wood-carvings. 405

224 Eggler, Jakob, Brienz-Oberdorf, Ct. Berne.—Wood-carvings. 405

225 Eggler, Johann, Brienz, Ct. Berne.—Wood-carvings. 405

226 Flück, J., Fluhberg, near Brienz, Ct. Berne.—Wood-carvings. 405

227 Germann & Eggler, Brienz, Ct. Berne.—Wood-carvings. 405

228 Grossmann, Joh., Ringgenberg, near Interlaken, Ct. Berne.—Wood-carvings. 405

229 Jäger, Jb., & Co. Brienz, Ct. Berne.—Wood-carvings. 405

230 Imboden Bros., Ringgenberg, near Interlaken, Ct. Berne.—Wood-carvings. 405

231 Klein, J. F., & Son, Meiringen, Ct. Berne.—Wood-carvings. 405

233 Sterchi, Fritz, Interlaken, Ct. Berne.—Wood-carvings. 405

234 Zumbrunn, Schmoker, & Co., Ringgenberg, Interlaken, Ct. Berne.—Wood-carvings. 405

Painting.

235 Glardon, C. L., Geneva.—"The Morning" (after Greuze); enamel for a watch, of Badollet's exhibition. (See No. 78, p. 355.)

Engraving and Lithography.

236 Rieter-Biedermann, J., Winterthur, Ct. Zurich.—Printed music and engravings. 421

237 Bonnet, Charles, & Co., Geneva.—Types, borderings, ornaments cut in wood, for printers and lithographers. 422

238 Bonfantini, G. A., Basle.—Typographical album, dedicated to the printers of Philadelphia. 422

239 Meyer, Theodor, Schaffhausen.—Wood-cuts. 422

240 Westfehling, J., Winterthur, Ct. Zurich.—Catalogue, Swiss section. 422

241 Orell, Füssli, & Co., Zurich.—Letter-press plates, chemical engraving, wood engravings reduced, plates for paper money, sample sheets and books. 423

242 Hindermann & Siebenmann, Zurich.—Chromo-lithographs. 424

243 Knüsli, Caspar, Zurich.—Chromo-lithographs. 424

Photography.

244 Charnaux, F., Geneva.—Photographs of the glaciers of Switzerland. 430

245 Ganz, J., Zurich.—Photographs. 430

246 Gut, Jean, & Co., Zurich.—Photographs. 430

247 Linck, J., Winterthur, Ct. Zurich.—Photographs. 430

248 Nicola-Karlen, Emil, Berne.—Swiss photographs. 430

249 Richard, T., Son, Männedorf, Ct. Zurich.—Album of photographs, Swiss costumes, Swiss myths and traditions, Swiss landscapes. 430

250 Simona, Giorgio, Locarno, Ct. Tessin.—Photographs. 430

251 Tæschler Bros., St. Fiden, near St. Gallen.—Photographs. 430

252 Zacher, C., Zurich.—Photographs. 430

Machines for Making Watches.

253 Servet, J. Marc, Son, Geneva.—Tools and instruments for watchmakers and jewelers. 535

254 Borel-Petitpierre, Ls., Couvet, Ct. Neuchâtel.—Tools and instruments for watch manufacturing. 535

255 Grobet, François Louis, Vallorbes, Ct. Vaud.—Tools and instruments for watch manufacturing. 535

256 Keigel, Auguste, Couvet, Ct. Neuchâtel.—Equalizing machine, lathes, tool for forging wheels, deepening tool. 535

257 Leresche-Golay, Jules, & Co., Vaulion, Ct. Vaud.—Files, tools, and instruments for watch manufacturing. 535

258 Vautier, Sl., & Sons, Carouge, near Geneva.—Tools and instruments for watch manufacturing and for jewelers. 535

259 Berlie, Edouard, Geneva.—Tools and gravers. 535

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

BELGIUM.

(*North of Nave, Columns 54 to 59.*)

Educational Books and Appliances, Scientific Instruments.

Educational Systems, Methods, and Libraries.

1 Arens, Antoine, Namur.—School books. 300

2 Crevecœur, Henri Stanislas Joseph, Orp-le-Grand (Brabant).—Statistical lists for school teachers. 300

3 Genonceaux, Louis, Bruges.—School books. 300

4 Belgian Government Educational Department.—Type of school furniture approved by the Belgian government. 300

5 Happel, J., Antwerp.—Adjustable desk, perambulators. 300

6 Landrien, Bernardin, Mechlin.—School books. 300

7 Licot, Feuillien, Nivelles (Brabant).—Work on drawing. 300

8 Lory-Delaet, Pierre, Brussels.—Writing method adopted by the Belgian government. 300

9 Petry, Adolphe, Mons (Hainaut).—Arithmometer. 300

10 Stebert, Pierre, Tongres, Limbourg.—Essay on education, etc. 300

11 Van Havermaet, Henry, Brussels.—Furniture used in orphan asylums. 300

12 Claesen, Ch., Liége.—Works on art. 302

13 Colinet, Ed., Brussels.—Work on art. 302

14 Stroesser, Jean-Pierre, Brussels.—Solids represented in profile by metallic wire. 302

15 Van der Molen, A., & Co., Brussels.—Works on architecture and sculpture. 302

16 Lebon, Leon, Brussels.—Educational works. 306

17 Dessain, H., Mechlin, Province of Antwerp.—Prayer, liturgy, and other books. 306

18 Du Fief, J., Brussels.—School books on geography. 306

19 Callewaert Bros., Brussels.—School books, Callewaert's dictionaries. 306

20 De Cuyper, C., & Noblet, A., Liége.—Works on mining, etc. 306

21 De Koninck, Laurence Wm., Liége.—Works on paleontology. 306

22 Destexhe, A. M. T. J., Modave, Province of Liége.—Works on instruction. 306

23 Dujeux, J. B. C., Brussels.—Special collection of patents. 306

24 Landrien, Bernardine, Mechlin.—School books. 306

25 Manceaux, Hector, Mons (Hainaut).—School books. 306

25*a* St. Nicolas, Ch., East Flanders.—School books. 306

26 Meeus, Jules, Brussels.—Belgian "Industrial Monitor" (newspaper). 306

27 Van Holsbeek, Henry, Brussels.—Works on hygiene. 306

Institutions and Organizations.

28 Educational Union, Brussels.—Works on instruction. 310

29 Doings of Popular Evening Parties of Verviers, Verviers.—Publications, etc. 310

30 Toekomst Society, Antwerp.—Reports, etc. 310

31 Maelen, Joseph van der, Molenbeek St. Jean, near Brussels.—Geographical works. 310

32 Namur Artistic Literary Club, Namur.—Annals of the Club. 311

33 Entomological Society of the Royal Museum of Natural History of Belgium, Brussels.—Reports, etc. 311

34 Limbourg Scientific & Literary Society, Limbourg.—Publications. 311

35 Artists' Union, International Club of Fine Arts, Liége.—Statutes, etc. 311

36 Morning Star Royal Society, Brussels.—Dramatic, literary, and choral works. 313

37 Meerens, Charles, Brussels.—Music and musical works. 313

Scientific and Philosophical Instruments and Methods.

39 Le Boulengé, Paul Emile, Liége.—Telemeter for the battle-field. 321

40 Linglin, Edward, Charleroi.—Centrifugal power regulator. 321

41 Majolini, Francis, La Louvière (Hainaut).—Platform scale for railroads. 322

42 Carette Dobbels, D., Meulebeke, near Courtrai, West Flanders.—Lightning rod without joints. 336

44 Mahillon, C., Brussels.—Wind instruments. 327

Engineering, Architecture, Maps, etc.

47 Tellier, Adolphus Le, Saint Gilles, near Brussels.—Filters. 330

51 Malaise, C. H. G. L., Gembloux.—Agricultural chart. 335

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Physical Development, Benevolent and Industrial Associations.

Physical, Social, and Moral Condition of Man.

52 Dries, Lois Francis, Saint Gilles, near Brussels.—Gymnastics at primary and ward schools, etc. 340

53 Schmitz, Peter, Liége.—Treatises on gymnastics. 340

54 Brussels Gymnastic Association, Brussels.—Statutes. 340

56 Relief Association for the Needy.—Statutes and annual reports. 346

57 Boniotti, Peter, Brussels.—Document relating to the association for free medical assistance. 346

58 Royal Society for the Prevention of Cruelty to Animals, Brussels.—Publications, etc. 346

59 Warlomont, Dr., Brussels.—Vaccine and its distribution to physicians. 346

59*a* Manufacturers' Joint Stock Co., St. Nicholas, East Flanders.—Statutes. 347

60 Permanent Commission of Mutual Relief Associations, Belgium.—Reports, etc. 347

61 Laurent, Francis, Ghent.—Works on the improvement of the working classes. 347

62 Mechlin Savings Bank, Mechlin.—Reports, etc. 347

63 Schoenfeld, H., Brussels.—Reports, etc., of the Belgian Medical Profession Pension Fund. 347

64 Grivegnée Co-operative Expenditure Society, Grivegnée, near Liége.—Reports, etc. 347

65 Mutual Commercial Co., Brussels.—Reports, etc. 347

66 Commercial & Industrial Mutual Co., Ghent.—Reports, etc. 347

67 Mutual Benefit Association, Xhendremael, near Liége.—Reports, etc. 347

---

68 Roelens, Désiré, Ghent.—Plan of a hot-house heating apparatus, with thermosyphon. 715

69 Smits, Constantine, Forest, near Brussels.—Model of a park, bird's-eye view, leveling, etc. 730

NETHERLANDS.

(North of Nave, Columns 60 to 65.)

Educational Books and Appliances, Statistics.

Educational Systems, Methods, and Libraries.

1 Tjeenk-Willink, H. A., Arnhem.—Earth globes with zinc balls. 300

2 The Book Trade, Amsterdam.—Books, school books, newspapers, and periodicals. 300

3 Deutgen, L., Groningen.—Paper blackboard. 300

4 Artisans' School, Rotterdam.—Drawings and designs. 300

5 Kolkow, F. J. von, Groningen.—Photographs on glass. 300

6 Workmen's Artisans' School, Amsterdam.—Drawings. 302

7 Verhaar, A. T., Utrecht.—Plaster casts of cattle that died of murrain in 1865. 302

8 Workmen's Society, Amsterdam.—Drawings by pupils. 302

9 Deaf & Dumb Institute, Groningen.—Reports, 1790-1875. 303

10 Blind Institute, Amsterdam.—Means of instruction for the blind, and articles made by pupils. 303

11 Serraris, P. A., jr., Geertruidenberg.—Writing apparatus for weak-sighted. 303

12 Mulder, L., Arnhem.—Periodicals. 306

Institutions and Organizations.

13 Dutch Scientific Society, Haarlem.—Treatise on natural science; archives of the Netherlands. 310

14 Teyler's Foundation, Haarlem.—Archives of the Teyler von der Halst Museum. 310

15 Society for the Promotion of Architecture, Amsterdam.—Works on architecture. 311

16 Dutch Association for the Encouragement of Industry, Haarlem.—Periodicals published by the Association. 311

18 Krelage, J. H., Amsterdam.—Pamphlets. 312

19 Dutch Horticultural & Botanical Association, Amsterdam.—Pamphlets. 312

20 Amersfoordt, Mrs. H. M., Badhoeve.—Oratorio—"God's Ubiquity." 313

21 Gelder, G. M. van, Schaerbeek.—Piano forte method. 313

22 North Netherlands Musical & Historical Association, Amsterdam.—Publications. 313

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45

23 Roothaan, L., Amsterdam.—Music. 313

Scientific and Philosophical Instruments and Methods.

24 Harting-Bank, H. J., Utrecht.—Scientific instruments. 320

25 Ministry of Finance, Hague.—Scientific instruments. 320

26 Olland, H., Utrecht.—Meteorological instruments. 320

27 Kerbel, G. H., Amsterdam.—Model of a steam engine. 320

28 Wetteren, M. van, Haarlem.—Magnets. 320

30 Muller, J. A., Amsterdam.—Water gauge. 321

31 Betou, P. J. in de, Delft.—Instrument measuring 100th part of a millimetre. 321

32 Hohwü, A. & T., Amsterdam.—Chronometers and astronomical clock work. 323

33 Casseres, A. de, Amsterdam.—Chronometers and astronomical clocks. 323

34 Cuypers, J. F., Hague.—Piano. 327

Engineering, Architecture, Maps, etc.

35 Ministry of the Interior.—Collection of public works of the Netherlands. 330

36 Amsterdam Canal Co., Amsterdam.—Chart of the channel to the North Sea. 330

37 Chambers of Commerce & Industry, Middleburg & Flushing.—Relief chart of harbor. 330

38 Polytechnic School, Delft.—Models of lock gates. 330

39 Morre, G. J., Delft.—Drawings. 330

40 Simon, M., Flushing.—Copper model of lock gates. 330

41 Stang, T., Hague.—Drawings of aqueduct. 330

42 Dutch Railroad Co., Amsterdam.—Model of railroad bridge, and drawings. 332

43 Nierstrasz, N. H., Bois-le-Duc.—Plans and drawings. 332

44 Zimmerman, G. P. H., Gouda.—Chart of Suriname river. 335

Physical, Social, and Moral Condition of Man.

45 Boer, F. N., Rotterdam.—Model of cheap boarding-house. 342

46 Tjeenk Willink, W. E. J. Zwolle,—Drawings and statutes of Workmen's Association. 342

47 Association for Improvement of Workmen's Buildings, Leuwarden.—Drawings and statutes. 342

48 Association for Improvement of Workmen's Buildings, Hague. — Model of lodgings for workmen. 352

50 Help Yourself Association, Leuwarden.—Statutes, plans, etc. 342

51 Beneficial Association.—Models, drawings, writings, and photographs. 346

52 Gori, M. W. C., Amsterdam.—Work on hospitals. 346

The "Red Cross."

53 Dutch Association for Assisting Sick and Wounded Soldiers in War Time.—Publications. 346

Machines and Tools for Working Metal, Wood, and Stone.

54 Haverkamp, Begemann E., Helmond.—Gutter bore machines. 551

Machines, Apparatus, and Implements used in Sewing and Making Clothing and Ornamental Objects.

55 Rennes, D. W. van, Utrecht.—Sewing machine. 531

Motors, Power Generators, etc.

56 Prakke, J. E. & H., Eibergen.—Leather straps; belting. 553

57 Naeff, G. & M., Lochem.—Leather straps; belting. 553

Hydraulic and Pneumatic Apparatus.

58 Rennes, D. W. van, Utrecht.—Machine for moving liquids by heat. 560

59 Rietschoten, van, & Houwens, Rotterdam.—Model of engine for deepening rivers, etc. 563

60 Bikkers & Son, Rotterdam.—Fire extinguishers. 564

61 Burger, H., Deventer.—Velocipedes. 571

62 Heshuijsen, W. F., Sandpoort.—Railroad switch. 572

63 Bens, A., Deventer.—Coffee and bean mills. 585

For classes of exhibits, indicated by numbers at end of entries, see Classificati m, pp 27-45.

SWEDEN.

(*North of Nave, Columns 6 to 11.*)

Educational Publications and Appliances.

Educational Systems, Methods, and Libraries.

1 Abrahamson, Aug., Nääs, Floda.—Work by pupils of Nääs School of Home Industry for Boys and Girls. 300

2 Alard, A. F., Simtuna.—Musical staff table. 300

2*a* Anderson, N. J., Stockholm.—Animals, plants, and minerals. 200

3 Bagge, G. B., Paris, France.—Geographical maps. 300

4 Berggren, A. N., Stockholm.—Method of penmanship. 300

4*a* Brunell, J. E., Stockholm.—Penholders. 300

5 Cervin, C. G., Hesselby, Stockholm.—Model of a school-house. 300

6 Glömsta Manufactory, Huddinge.—Universal school form. 300

7 Royal Swedish Commission, Stockholm.

a A primary school house, with accessories of furniture, books, maps, and apparatus for instruction. (*In the Park, Building No. 107.*) 300

b Newspapers at present published in Sweden. 306

8 Erdman, Edward, Stockholm.—Geographical diagrams. 300

8*a* Lewenhaupt, Count C. M., Clacstorp.—Toys, split shavings for mats, etc. 300

9 Lindblad, M. A., Stockholm.—Dried plants and cryptogamic types. 300

10 Winslow, A. P., Göteborg.—Herbarium for schools. 300

11 Nordlund, K., Gefle.—Apparatus for instruction in arithmetic. 300

11*a* Technical Elementary Schools (collective exhibit).—Work of pupils. 300

11*b* Hennings, R. T., Orebro.—Methods and means of instruction. 300

11*c* Svensson, A., Stockholm.—Stuffed mammals, birds, and fishes. 300

11*d* Wiman & Co., Stockholm.—School stoves. 300

11*e* Zanders, H., Nowkoping.—Drawings of gymnastical apparatus. 300

14 Fries, Th. M., Stockholm.—Spitzbergen herbarium. 301

15 Ramsay, Ebba, Mrs., Göteborg.—Drawings of Spitzbergen plants. 301

16 Windrufva, Sven, Stockholm.—Scandinavian herbarium. 301

16*a* Vrana National High School, Vrana.—Samples of pupils' work. 301

17 Alnarp Agricultural Institute, Alnarp.—Maps and drawings of the farm buildings of the agricultural high school, photographs of its domestic animals, and a collection of plants grown on the farm of the school; works by pupils. 302

19 Royal War Department, Stockholm.—Works and drawings by pupils at the military school of Carlberg and military high school of Marieberg. 302

26 Staaf, P. O., Stockholm.—Agricultural and sylvicultural text books. 302

27 Wulff, H. A., Applerum, Kalmar.—Scheme of the agricultural school, drawings of farm buildings and implements, with specimens of soil and agricultural products. 302

28 Borg, O. E., Manilla, Stockholm.—Combined apparatus for speaking and hearing, for half deaf and dumb; symbolical vocabulary, used for the instruction of deaf and dumb. 303

29 Holm, F. J. W., Stockholm.—Model of the gymnastic hall at the institute for deaf and dumb of Manilla, in Stockholm. 304

30 Working Home for the Blind Stockholm.—Basket work by blind pupils. 303

31 Public Institute for the Deaf, Dumb, & Blind, Stockholm.—Pupils' works. 303

32 Olsson, Magnus (blind, deaf, & dumb), Malung, Lima.—Willow furniture. 303

33 Klemmings Antiquarian Stock Co., Stockholm.—Books printed in Sweden in the 16th, 17th, and 18th centuries, with accounts of the earliest Swedish settlements in America. 306

33*a* Brunius, A. W., Stockholm.—Books. 306

33*b* Royal Statistical Central Bureau, Stockholm.—Statistical diagrams. 306

33*c* Sidenbladh, Elis, Stockholm.—Statistical accounts of Sweden. 306

34 Central Printing Stock Co., Stockholm.—Typographical productions. 306

35 Gumaelius Arvid, Orebro.—The newspaper "Allehanda för Folket." 306

36 Key, Axel, Stockholm.—Anatomical treatise, periodical papers upon medicine and popular science. 306

38 Key, A. & Retzius G., Stockholm.—Studies in anatomy; periodical devoted to popular science. 306

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Scientific Instruments, Engineering Designs.

Institutions and Organizations.

39 Hammer's Museum, Stockholm.—Photographs, catalogues, etc. 312

40 Royal Economical Society, Lulea.—Laplanders' costumes and utensils. 312

40*a* Schlyter, G. R., Stockholm.—Roman costumes. 312

40*b* Nordenskiöld, A. E., Stockholm.—Meteorite from Greenland. 312

Scientific and Philosophical Instruments and Methods.

41 Royal Agricultural Society of the Lan of Goteborg & Bohus.—Apparatus for deep-sea soundings and marine evaporimeters. 320

42 Gundberg, J. W. L., Stockholm.—Copper vessels for preserving zoological specimens; zoological sieves. 320

43 Leja, Joseph, Stockholm.—Thermometer. 320

44 Lindahl, Jos., Lund.—Apparatus for deep-sea soundings and dredgings. 320

45 Ljungström, J. P., Stockholm.—Geodetic and surveying instruments. 320

47 Rose, J. L., Upsala.—Magnet and needle-compasses for mines. 320

48 Theorell, A. G., & Sörensen, P., Stockholm.—Meteorograph. 320

49 Wiberg, Martin, Stockholm.
a "Bull-dog apparatus" for deep-sea soundings. 320
b Logarithmetical tables, calculated and printed by a counting machine; controlling apparatus for railway trains. 321

50 Brehmer, E. F. A., Stockholm.—Railway ticket registering apparatus, paging machine, etc. 321

54 Petterson, C. J., Carlshamn.—Calculating machine. 321

55 Linderoth, G. W., Stockholm.—Clocks. 323

57 Unge, V. T., Stockholm.—Apparatus for measuring distances for military purposes. 323

58 Otter, Baron C. G. von, Stockholm.—Signal lantern. 324

59 Kuntze & Co., Stockholm.—Air telegraphs. 326

61 Ahlberg & Ohlsson, Stockholm.—Wind instrument of metal. 327

63 Lundholm, C. A. V., Stockholm.—School organs and harmoniums. 327

64 Malmsjö, J. G., Göteborg.—Pianos. 327

Engineering, Architecture, Maps, etc

66 Norrman, C. G. V., Stockholm.—Model of a pontoon bridge. 333

67 Bagge, G. P., Paris, France.—Geographical maps. 335

68 Erdmann, Edward, Stockholm.—Geological maps and models. 335

69 Royal Swedish Staff General, Stockholm.—Topographical maps. 335

69*a* Nordenskiöld, A. E., Stockholm.—Maps. 335

69*b* Roth, M., Stockholm.—Geographical maps. 335

69*c* Sahlbom, W., Stockholm.—Maps. 335

73 Economical Survey of Sweden, Stockholm.—Economical and agronomical maps. 335

74 Geological Survey of Sweden, Stockholm.—Geological maps, collections of minerals, rocks, and soils. 335

Physical, Social, and Moral Condition of Man.

74*a* Zander, G., Stockholm.—Apparatus for mechanical gymnastics. 340

75 Royal Swedish Commission, Stockholm.—Collection of current coins and bank notes in Sweden. 344

75*a* Lindhen, H. A. W., Stockholm.—Letter box. 345

Other educational exhibits from Sweden are installed in the Swedish School House, No. 107, and are enumerated on page 362.

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

NORWAY.

(*North of Nave, Columns 4 to 7.*)

Educational Books and Appliances, Scientific Instruments, Statistics.

Educational Systems, Methods, and Libraries.

1 Bergen Common School Board, Bergen.—Collection of materials for a free school. 300

2 Sandberg, Andreas, Christiania.—Models of handwriting. 300

3 Boeck, W., & Danielssen, D. C., Christiania and Bergen.—Treatises on skin diseases and elephantiasis. 360

4 Bentzen, B. M., Christiania.—Books and other specimens of printing. 306

5 Norwegian Association of Tourists, Christiania.—Books, maps, photographs, etc. 306

6 Jensen, H. J., Christiania.—"The Illustrated News," and other illustrated works. 306

Scientific and Philosophical Instruments and Methods.

7 Wedel-Jarlsberg, Ferd., Commodore of the Norwegian Navy, Christiania.
a Patent control compasses, log machine. 320
b System of night signals. 326

8 Petersson, A. J., Christiania.—Calculating machine. 321

9 Mostue, Thv., & Co., Christiania.—Scales. 322

13 Aarestrup, J., Bergen.—Piano. 327

14 Brantzeg, P., Christiania.—Pianos. 327

Engineering, Architecture, Charts, Maps, and Graphic Representations.

16 The Director of the Public Roads of Norway, Christiania.—Maps, drawings, books. 330

18 Geographical Institute of Norway, Director of, Christiania.—Maps and topographical sections. 335

20 Collett, Robert, Assistant of the Zoological Museum, Christiania.—Zoo-geographical map of Norway, containing a complete list of the vertebrate animals of the country. 335

21 Schubeler, F. C., Professor of Botany at the University of Christiania.
a Botanico-geographical map of Norway. 335
b Plants of Norway. 701

21*a* Pettersen, Karl, Tromsö.—Geological map with descriptions. 335

Physical, Social, and Moral Condition of Man.

22 Statistical Bureau, Christiania.—Collection of official statistical publications relating to Norway; collection of cartographical representations. 345

23 Hagen, J., Christiania.—Leather and skins. 652

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

ITALY.

(North of Nave, Columns 1 to 5.)

Educational Books and Publications, Scientific Instruments.

Educational Systems, Methods, and Libraries.

1 Angelini, Prof. Rodolfo, Rome.—Specimens of penmanship. 300

2 Maineri, Carlo, Milan.—Geographical map in relief. 300

3 Ben, Michelangiolo, Verona.—Mathematical maps. 300

4 Villa, Cav. Prof. Ignazio, Milan.—Geographical maps. 300

5 Palizzolo Gravina, Baron Vincent, Palermo.—Scientific books. 301

6 Filopanti, Dr. Prof. Quirico, Bologna.—Book on philosophy. 301

7 D'Italo, Enrico F. T., Milan.—Map of the world in the form of a globe, and objects for the study of geography and other sciences. 301

8 Giordano, Prof. Scipione, Turin.—Materia medica. 302

9 Perelli, Prof. Luigi, Milan.—Album, with specimens of stenography. 302

10 Vigano, Francesco, Milan.—Scientific books. 302

11 Claus, Cav. Prof. Niccolo, Milan.—Didactic and linguistical treatises. 302

12 Volante, Alessandro, Turin.—Pamphlet on mechanics. 302

13 Strazza, Giannina, widow Lucca, Milan.—Collection of music. 302

14 Tito di G., Ricordi, Milan.—Collection of music. 302

15 Bratti, Seiatilli, & Co., Florence.—Collection of music. 302

16 Crotta, Giannina, Milan.—Album of music. 302

17 C. Cam. Theophilus, Florence.—School books. 306

18 Brigola, Gaetano, Milan.—Scientific and miscellaneous books. 306

19 Maino, Antonio, Piacenza.—Books and maps. 306

20 Morandi, Feliesta, Milan.—Educational books. 306

21 Maltese, Dr. Felice, Vittorio, Sicily.—Book on philosophy. 306

22 Guida, Prof. Francesco, Naples.—Book on night signals. 306

23 Beccari, Gualberta Alaide, Bologna.—Newspaper, "La Donna." 306

24 Barra, Prof. Luigi, Ottajano, Naples.—Didactic book. 306

25 Gargiulo, Francesco, Naples.—Descriptive book. 306

26 Gravina, Domenico, Palermo.—Illustrated books. 306

Institutions and Organizations.

27 Director of the Anatomical & Pathological Museum of Florence.—Microscopic, normal, and pathological anatomical preparations. 311

28 Scaraviglia, Torquato, Gualdo Tadino, Umbria.—Album and pictures. 312

Scientific and Philosophical Instruments and Methods.

29 Sollima, Giacomo, Messina.—Mill scales. 322

29a Gasparini, Giacomo, Rome.—Meter for measuring grain. 322

30 Villa, Cav. Prof. Ignazio, Milan.—Universal clock. 323

32 Gennari, Cav. Dr. Enrico, Milan.—Optical instruments. 324

33 Ponti, Carlo, Venice.—Camaziale and megalithoscope (optical instruments). 324

34 Figatner, Enrico, Milan.—Electric batteries. 325

35 Gerosa, Edoardo & Emilio, Milan.—Telegraphic instrument. 326

36 De Lorenzi, Cav. G. Batta, Venice.—Violins, Stradivarius style. 327

37 Bedini, Giuseppe & Sons, Venice.—Harmonic strings. 327

38 Venturini, Luigi, Padua.—Harmonic strings. 327

39 Giuliano, Ditta, Naples.—Cylindrical piano. 327

Engineering, Architecture, Maps, etc.

40 Linari, Eng. Antonio, Rome.—Plan for a tunnel. 330

Physical, Social, and Moral Condition of Man.

41 Acquadro, Paolo, Turin.—Postal box. 345

42 Aurineta, Cav. Marco Aurelio, Naples.—New system of disinfection. 346

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

BRAZIL.

(*North of Nave, Columns 58 to 61.*)

Educational Books and Publications, Scientific Instruments.

Educational Systems, Methods, and Libraries.

1 Municipal School Boards, Rio de Janeiro.—Text books, specimens of writing, drawing, and needle work. 300

2 Santa Candida School for Girls, Rio de Janeiro.—Specimens of penmanship. 300

3 Faculty of Medicine, Rio de Janeiro.—Text books and theses on medical and chirurgical subjects. 302

4 Naval School, Rio de Janeiro.—Educational books, specimens of drawings, models, etc., made by the cadets; maps, charts, etc. 302

5 Commercial Institute, Rio de Janeiro.—Specimens of drawing, writing, and book-keeping. 302

6 Academy of Fine Arts, Rio de Janeiro.—Specimens of drawing and pupils' work. 302

7 Public Instruction Board, Rio de Janeiro.—Educational books, specimens of writing and needle work. 302

8 Arts & Trades Lyceums, Rio de Janeiro.—Drawing and pupils' works. 302

9 Artistical Institute, Rio de Janeiro.—Chromo-lithographic engravings, printed books, maps and charts, specimens of book-binding. 302

10 Military Archives, Rio de Janeiro.—Maps and charts. 302

11 Faculty of Medicine, S. Salvador da Bahia.—Collection of theses on medical subjects. 302

12 Institute for Deaf & Dumb, Rio de Janeiro.—Educational books, specimens of drawing and dactylological painting; shoes made by pupils. 303

13 Imperial Institute for Blind Boys & Girls, Rio de Janeiro.—Apparatus used in teaching; books, geometrical figures, musical compositions; specimens of needle work. 303

14 Home Department, Rio de Janeiro.—Educational reports, laws, regulations, statistics, and catalogues. 304

15 Gaveao, Coronel J. M., & Paes de Barros, San Paulo.—Newspapers. 306

15*a* Laemmert, Edward & Henry, Rio de Janeiro.—Books. 306

16 Leuzinger & Sons.—Specimens of printing. 306

17 Moreira, Nicoláu J., Rio de Janeiro.—"The National Industry Guide Review," treatise on colonization. 306

18 National Printing Office, Rio de Janeiro.—Various typographical objects. 306

19 Commission-General for the National Exhibitions, Rio de Janeiro.—Collection of Brazilian newspapers. 306

20 Silva, Pessanha da, Rio de Janeiro.—Brazilian medical annals. 306

22 Villeneuve, J., & Co., Rio de Janeiro.—"Journal of Commerce." 306

23 Roxo, Monteiro, & Lemos, Rio de Janeiro.—"Direito Mercantil." 306

24 Possolo, E. Germack, Rio de Janeiro.—Books. 306

25 Alves, S. José, Rio de Janeiro.—Books. 306

26 d'Azevedo, J. G., Rio de Janeiro.—Books. 306

Institutions and Organizations.

27 Leuzinger & Sons, Rio de Janeiro.—Collection of articles for museums. 312

28 Brant, J. Ferreira d'A., Minas Geraes.—Collection of insects. 312

29 Napoleao, Narcisó & Arthur, Rio de Janeiro.—Music printing and engraving. 313

30 Santos, áQuintino dos, Rio de Janeiro.—Musical compositions. 313

31 Silva, Francisco Manuel da, Rio de Janeiro.—Musical compositions. 313

32 d'Araujo, Gomes, Rio de Janeiro.—Musical compositions. 313

33 Lago, Emilio do, Rio de Janeiro.—Musical compositions. 313

34 Goyano, J. J., Rio de Janeiro.—Musical compositions. 313

35 Silva Callado, J. A. da, Rio de Janeiro.—Musical compositions. 313

36 Amat, José, Rio de Janeiro.—Musical compositions. 313

37 Menezes, Cardoso de, Rio de Janeiro.—Musical compositions. 313

38 Campos, A., Rio de Janeiro.—Musical compositions. 313

39 Ribas, Edward, Rio de Janeiro.—Musical compositions. 313

Scientific and Philosophical Instruments and Methods.

40 Army Arsenal of Rio Grande do Sul.—Metal meridian. 320

41 Saldanha, Luiz de, Brazilian Navy.—Nautical repeating compass. 320

41*a* Pinheiro, A. Pereira, Brazilian Navy.—Sandagraph or automatic deep-sea sounding apparatus. 320

42 Garrid.—Apothecaries' scale. 322

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Musical Instruments, Engineering Designs, Coins.

43 General Commission from Rio de Janeiro.—Piano; large guitar (viola), and small guitars (machetes). 327

44 Lins, Lamenha, Sancta Candida.—Guitars 327

45 Couceiro, J. do Santos, Rio de Janeiro.—Violin and bow. 327

46 General Commission for Brazil.—Piano. 327

Engineering, Architecture, Charts, Maps, and Graphic Representations.

47 The Board of Directors of the "Pedro II. Dock Works" Co.—Drawings showing the "Pedro II. Dock Works" at Rio de Janeiro, and samples of the wood employed in the works, submarine constructions, wharves, and warehouses. 330

48 Rebouças, André & Castro, Borja, Rio de Janeiro.—Photographs of custom-house dock works, plans containing details of work, etc. 330

49 Public Works Office, Rio de Janeiro.—Project to improve the harbors of Brazil, by Sir John Hawkshaw. 330

50 Liais, E., Rio de Janeiro.—Surveys and profiles of the rivers Das Velhas and San Francisco, with reports. 330

51 Hydrographic Department, Rio de Janeiro.
a Surveys of the Amazonas river for 2240 miles. 330
b Charts of the coast and harbors of Brazil. 335

52 Speir, W., Province of San Paulo.—Drawings of the railroad from Santos to Jundiahy, San Paulo. 332

53 Fox, Engineer, Province of San Paulo.—Plans and drawings. 332

54 Public Works Office, Rio de Janeiro.
a Drawings, showing the bridges of the Pedro II. railway. 332
b Charts and topographical maps of the various provinces, etc. 335

55 Penna, Ferreira, S. Pedro du Sul.—Plans, estimates, and reports on the projected railway from Porto Alegre to Uraguayana. 332

56 Loyd, Engineer, Rio de Janeiro.—Project of a railway to the Province of Matto Grasso, with plans, estimates, etc. 332

57 Bulhoes, Engineer, Rio de Janeiro—Railway plans, illustrations, estimates, etc. 332

58 Coutinho, Silva, Rio de Janeiro.—Project to lengthen the railway line to the Province of Pernambuco, with plans, etc. 332

59 Garceix, Prof.—Geological map of the province of Minas-Geraes. 335

60 Commission-General for the National Exhibitions.—Maps of the Province of San Paulo; elements for the organization of a physical chart of Brazil, by Homen de Mello. 335

61 Mendes, C., Rio de Janeiro.—Atlas of the Brazilian empire. 335

62 Rohan, General de Beaurepaire, Rio de Janeiro.—General chart of the Brazilian empire. 335

Physical, Social, and Moral Condition of Man.

63 National Mint, Rio de Janeiro.—Collection of medals stamped by the mint; collection of Brazilian coins. 344

64 Suplicy, J. F., Province of Paraná.—Collection of medals obtained by galvano-plastic method, galvano-plastic pile. 344

(*For Naval Engineering, see Machinery Hall.*)

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45

ARGENTINE REPUBLIC.

(*South of Nave, Columns 2 to 5.*)

Books, Maps, Statistics.

Educational Systems, Methods, and Libraries.

1 Gonzalez, Meliton, Province of Entre-Rios.—Map of the province. 300

2 Chapeaurouge, C. de, Province of Santa Fé.—Map of the province. 300

3 Grousae, Paul, Province of Tucumen.—Map of the province. 300

4 Monguillot, E., Province of Buenos Ayres.—Sheet music. 302

5 Scapatura, A., Province of Buenos Ayres.—Sheet music. 302

6 Yorge, Faustino, Province of Buenos Ayres.—Statistical register of the province. 305

7 Rosseli, Peter, Province of Buenos Ayres.—Periodical—"Correo Argentino." 306

8 Bridma, Martin, Province of Buenos Ayres.—Books of typographical samples. 306

9 Costa, Angel F., Province of Buenos Ayres.—Work on finance. 306

10 Navarro, Samuel, Province of Buenos Ayres.—Work on immigration. 306

11 Navarro, Mardogueo, Province of Buenos Ayres.—Statistics of the epidemic of 1871. 306

12 Zuiny, Antonio, Province of Buenos Ayres.—Books. 306

13 Espineyro, Mariano T., Province of Buenos Ayres.—"The Judicial Periodical." 306

14 Chucco, Manuel C., Province of Buenos Ayres.—Books. 306

15 Ledesmo, Justiniano A., Province of Buenos Ayres.—Books. 306

16 Minister of the Interior.—"Memoirs of the Governor of Chaco." 306

17 Gelderen, A. van, Province of Buenos Ayres.—Encyclopedia. 306

18 Argentine Rural Society.—Annals of the Society; official bulletin of the National Exhibition of Córdoba. 306

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

SPAIN.

[*The exhibit of Spain in the Department of Education and Science is installed in the Spanish Pavilion, and catalogued in Part III., pages 132 to 141.*]

PORTUGAL.

(*South of South Avenue, Columns 13 to 17.*)

Publications, Statistics, Scientific Instruments, Engineering Designs.

Educational Systems, Methods, and Libraries.

1 Brito Aranha, Pedro W. de, Lisbon.—Elementary books. 300

2 Perry, Gerardo A., Lisbon.—Atlas with statistics of Portugal and colonies. 305

3 Association for the Encouragement of Manufactures, Lisbon.—A frame with diplomas, statutes and elementary books. 306

4 Direction of the Public Works of Mondego, Figueira.—"Memoir on the River Mondego;" "Catalogue of Plants in the Forest of Choupal." 306

5 Ferraz, José L. M., Ega.—Work on pharmacy. 306

6 Infante Dom Luiz Observatory, Lisbon.—Scientific publications. 306

7 Magalhaes & Moniz, Oporto.—Text books and other works. 306

8 Mengo, Francisco da Silva, Oporto.—Books. 306

9 Nepomuceno, Manuel, Oporto.—Books. 306

10 Silva, Joaquim Possidonio Narcizo da, Lisbon.—Memoirs on archæological and architectural subjects. 306

11 National Printing Office, Lisbon.—Printed works. 306

12 Portuguese Civil Engineers' Society, Lisbon.—Copies of the "Revista d'Obras Publicas e minas." 306

13 Sarmento, Anselmo Evaristo de Moraes, Oporto.—Copies of the "Actualidade" journal. 306

14 Department of Finance, Lisbon.—Commercial statistics of Portugal. 306

14*a* Queiroz, G. J. de, Lisbon.—Commercial statistics of Portugal, graphically arranged. 306

15 Prostes, H., Lisbon.—Bound copies of Portuguese newspapers and journals. 306

16 Costa, Godolphim, Lisbon.—Literary work. 306

17 Chardron, Ernest, Oporto.—Dictionary of the Portuguese language. 306

17*a* Lallement Bros., Lisbon,—Typographical works, printing on satin. 306

Institutions and Organizations.

18 Industrial Institute of Oporto.—History, organization, and course of studies. 310

Scientific and Philosophical Instruments and Methods.

19 Board of Public Forests, Lisbon.—Maps. 320

20 Industrial Institute of Lisbon.
- *a* Levels and planimeter. 320
- *b* Pantometers. 322
- *c* Pendulum. 323
- *d* Topo-photographic camera. 324

21 Infante Dom Luiz Observatory, Lisbon.—Meteorological and magnetic registers. 320

22 Bastos, Antonio Pinto, Lisbon.—Hydrometer. 320

23 Continho, D. Martinho da Franca, Lisbon.—Goniometric, goniographic and telemetric compass, pyramidal compass. 321

24 Pereira, Verissimo Alves.—Hydrometer. 321

27 Oliveira, Justino Gomes de, Villa Nova de Gaia.—Gold watches. 323

29 Motta, José Maria, Lisbon.—Electric bells. 326

30 Cabral, Affonso do Valle Coelho, Oporto.—Violin. 327

31 Araujo, Joaquim G., Braga.—Stringed instruments, guitars. 327

32 Ribeiro, Domingos Candido d'Almeida, Oporto.—Violin. 327

33 Pereira, Custodio Cardozo, Oporto.—Musical instruments. 327

34 Sanhudo, José Ferreira, Oporto.—Stringed instruments. 327

Engineering, Architecture, Maps, etc.

35 Silva, Silverio Augusto Pereira da, Aveiro.—Bridge model. 330

36 Administrative Board of Works for the artificial port of Ponta Delgada.—Plan of artificial port at Ponta Delgada, with description and views of same. 330

37 Lecrenier, Nicolas Joseph, Lisbon.—Model of rail. 332

38 Bayao, F. A. P., Lisbon.—Plan of a portable railway. 332

39 Perry, Gerardo A., Lisbon.—Geographical, physical, and orographical maps of Portugal. 334

40 Industrial Institute of Oporto, Oporto.—Topographical charts of the river Douro, and of the wine producing district. 335

41 Geodetical Department, Lisbon.—Geographic, geological, trigonometrical, and hydrographic maps and charts, and other graphic representations, books, atlases, matrices, etc. 335

42 Infante Dom Luiz Observatory, Lisbon.—Marine charts, etc. 33.

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Physical, Social, and Moral Condition of Man.

42*a* General Direction of the Mint & Stamped Paper, Lisbon —Coins and medals. 344

Sculpture.

43 Rio Junior, J. do, Oporto.—Statuettes. 400

44 Campolini, Miguel, Oporto.—Clay statuettes representing the costumes worn in the vicinity of Oporto. 400

45 Almeida, José J. d'A., Lisbon.—Stone figure. 400

46 Silva & Santos, Oporto.—Clay statuettes, representing national costumes. 400

47 National Printing Office, Lisbon.—Medals and plates. 402

48 Industrial Institute of Oporto, Oporto.—Specimens of Guillocher work in wood. 405

49 Oporto Commercial Association, Oporto.—Wood carvings. 405

Engraving and Lithography.

51 National Printing Office, Lisbon.—
a Ornamental engravings, plates, etc. 421
b Lithographs. 423

52 General Direction of the Mint and Stamped Paper, Lisbon.
a Copies from engravings. 421
b Copies from lithographs. 423

52*a* Oporto Commercial Association, Oporto.—Lithography. 423

53 Reis & Monteiro, Oporto.—Lithographs. 423

54 Mendes, Malaquias José, Lisbon.—Impressions from seals. 423

Photography.

55 Infante Dom Luiz Observatory, Lisbon.—Photographs of the sun. 430

56 General Direction of the Mint and Stamped Paper, Lisbon.—Copies from photographs. 430

57 Department of Mines, Lisbon.—Photographs. 430

58 Superintendency of Live Stock of the District of Beja.—Photographs showing races of live stock. 430

58*a* Industrial Institute of Oporto, Oporto.—Guillocher turning lathe. 510

59 Guerra, Joaquim Baptista da Silva, Oporto.—Jacquard weaving machine. 520

60 National Printing Office, Lisbon.—Type. 542

61 Continho, Antonio R. da S., Ponta Delgada.—Model of a propeller. 554

62 Cruz, Luiz F. de S., Oporto.—Hydraulic machine. 560

63 Castro, Joao V. az Pacheco, Ponta Delgada.—Stone hand mill. 585

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

TURKEY.

(*South of Nave, Columns 14 to 17.*)

Publications, Scientific Instruments, Art.

Educational Systems, Methods, and Libraries.

1 School of Medicine, Constantinople. —Books, treatises, etc., on medicine and natural sciences. 306

2 Herzmainska de Slupno, Madame, Constantinople. — Turkish sheet music, bound and unbound. 306

Scientific and Philosophical Instruments and Methods.

3 Kiamil Effendi, Koniah, Koniah.— Wooden sextant. 320

4 Moustapha, Constantinople.—Scale and weights. 322

5 Sulleiman, Constantinople. — Steelyards. 322

6 Boch Kirkor, Aleppo.—Flute. 327

7 Casmani, David, Damascus.—Musical instrument. 327

8 Dimitri, Yanina, Yanina.—Shepherd's flute, etc. 327

9 Giorgi, Antaki, Aleppo.—Flute. 327

10 Giorgi, Kara-Keni, Aleppo.—Mandoline, drum, and kettle drum. 327

11 Giorki Rizzo, Yanina, Yanina.—Guitar. 327

12 Moustapha Agha, Constantinople.— Flutes and haut-boys. 327

13 Manoli (shepherd), Lachite, Crete.— Bag pipe. 327

14 Mehemed Nablus, Damascus.—Kettle drum. 327

15 Thèophani, Nicoforaki, Canea, Crete.—Violin. 327

16 Thèophani, Nicolaki, Canea, Crete.— Shepherd's flute. 327

Physical, Social, and Moral Condition of Man.

18 Constantinople, Government of.— Turkish gold, silver, and metal coins, commemorative silver medals. 344

19 Terzibalion, Hadji Agop, Constantinople.—Collection of Greek, Roman, Byzantine, and Arabian coins, in gold, silver, copper, lead, and stone. 344

Paintings.

20 Ludovic & Vallauri, Constantinople. —Portrait of the late Sultan of Turkey. 410

21 Ottoman Commission. — Oil paintings. 410

a Scutari.
b The Bosphorus.
c Turkish lady.
d Landscape.

Engraving and Lithography.

22 Mazloum Aghiah, Constantinople.— Design. 420

Photography.

23 Granda, Canea, Crete.—Album containing views. 430

24 Mikahilidès, Adrianople. — Photographic view of Adrianople, the Imperial palace, mosque of Selim, etc. 430

25 Sebah, Constantinople. — Photographic views of Athens and the interior of the mosque of St. Sophia. 430

Industrial and Architectural Designs.

26 Constantinople, Government of.— Ottoman architecture. 441

Ceramic Decorations, Mosaics, etc.

27 Vaisse, Martin, & Co., Constantinople.—Brick and tile. 451

28 Ana Sebat, Jerusalem.—Tomb and sepulchre of Christ, in mother-of-pearl. 454

29 Riza Effendi, Constantinople.—Imitation fruits in wax, etc. 453

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

RUSSIA.

(*South of Nave, Columns 19 to 23.*)

Educational Publications and Appliances, Scientific Instruments.

Educational Systems, Methods, and Libraries.

1 **Strookoff, St. Petersburg.**
a School furniture and other educational appliances. 300
b Apparatus for mathematical studies. 301

1*a* **Laus, Theodore, Revel.**—Practical apparatus for setting arithmetical problems. 300

3 **Strembitzki's Laboratory, St. Petersburg.**—Appliances illustrating different branches of natural philosophy for school and scientific museums. 301

4 **Shinhelm, St. Petersburg.**—Ethnographical and zoological models. 301

5 **Sihieldknecht, St. Petersburg.**—Apparatus for mathematical studies. 301

6 **St. Petersburg Workshop for Educational Appliances and Games.**—Articles adapted for school instruction, gymnastics, and games. 301

7 **Reinbot, St. Petersburg.**—Technical collections for schools. 301

8 **Pik, Jacob, Warsaw.**
a Working model of Bramah's hydrostatic press; model of a steam engine. 301
b Mineralogical collection.

9 **Pedagogic Museum, St. Petersburg.**—Collection of educational appliances. 301

10 **Lapshenko & Mickhaeloff, St. Petersburg.**—Collection of educational appliances and apparatus. 301

11 **Kressten, St. Petersburg.**—Apparatus for physical experiments 301

13 **Kowalski, St. Petersburg.**—Appliances for the study of geography. 301

14 **Kochowski, St. Petersburg.**—Appliances illustrating geography 301

15 **Givotovski, St. Petersburg.**—Apparatus, illustrating botany. 301

16 **Fenoult & Co., St. Petersburg**—Text books and appliances for the study of different branches of knowledge. 301

17 **Female Workshop of Educational Appliances, St. Petersburg**—Ethnographical models. 301

18 **Brucher & Bauler, St. Petersburg.**—Apparatus for physical experiments. 301

19 **Practical Technological Institute, St. Petersburg.**—Systematical collection for practical instruction in working metal. 302

20 **Karlowicz, John, Warsaw.**—New method of writing music. 302

21 **Strogonoff Central School of Technical Drawing, Moscow.**—General and ornamental drawings executed by the pupils; text books. 302

22 **Krasinski, Dr. Hubert Novo, Mirgarod, Government of Kherson.**—Microscopic preparations of human tissues in sound and pathological state. 302

23 **Kotomin, Anthony, St. Petersburg.**—Models for teaching comparative anatomy. 302

24 **Imperial Technical School, Moscow.**—Collection of furniture, apparatus, instruments, and models for technical instruction, specimens of pupils' work. 302

24*a* **Grigorieff, St. Petersburg.**—Apparatus for teaching the blind. 303

25 **Helsingfors Stenographic Society, Finland.**—Treatises and periodicals on stenography. 306

26 **Krassoski, Alexander, Viatka.**—Books. 306

27 **Khitroff, Jrbit, Government of Perm.**—Typographical work. 306

28 **Wolf, Morice, St. Petersburg.**—Text books, illustrated books, and other editions. 306

29 **Unger, Gracian, Warsaw.**—"Tygodnic illustrowang" (illustrated periodical). 306

31 **Marks, A. F., St. Petersburg.**—"Nieva" (illustrated periodical). 306

31*a* **Jurgenson, Peter, Moscow.**—Music, exhibitor's edition. 306

Scientific and Philosophical Instruments and Methods.

33 **Pik, Jacob, Warsaw.**
a Double-barreled air-pump, Cagniard Latour's sirene with clockwork. 320
b Pyrhameter for measuring the linear expansion of various metals: Wallaston's camera-lucida spectroscope. 324

34 **Milewski, Joseph, St. Petersburg.**—Telemeter instrument for measuring distances without chains or rods. 320

35 **Imperial Technical School, Moscow.**—Apparatus for drawing parabolic lines, and scale for finding the radius of a given arc. 320

36 **Jagn, Nicolas, St. Petersburg.**—Pulse-pump apparatus adapted for accelerating the filtering process. 320

37 **Zevecki, C., St. Petersburg.**—Self-registering nautical instruments. 320

38 **Ezerski, E., St. Petersburg.**—Counting apparatus for multiplication and division. 321

39 **Diakofi, George, St. Petersburg.**—Arithmometer, new system. 321

40 **Alexandroff.**—Apparatus for verifying cartridges, exhibitor's system. 322

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Scientific Instruments, Engineering Designs, Maps.

41 Gootkooski, St. Petersburg.—Mechanical scales for verifying cartridges, exhibitor's system (photographs). 322

42 Chief Intendancy of War, St. Petersburg.—Method of testing flour, also apparatus for testing the quality and strength of cloth. 322

44 Palenoff, Constantine, Niji Tagil, Government of Perm.—Photometer, specially adapted for thermatics. 324

45 Martisheff, Wladimir, St. Petersburg.—Optical indicator. 324

46 Workshop of the Direction of the Baltic Lighthouses, Revel.—Lamps for lighthouses. 324

47 Workshop for Making and Repairing Nautical Instruments, Yermolin, St. Petersburg.—Fresnel's lamp for lighthouses; slides for the magic lantern. 324

48 Tabulevitch, T. R. N., St. Petersburg.—Naval signal light. 324

49 Starkoff, Eugene, St. Petersburg.—Albumen paper specially prepared for photography. 324

50 Koolikoff, Nicolas, Moscow.—Russian national musical instruments. 327

Engineering, Architecture, Maps, etc.

51 Municipality of the City of St. Petersburg.—Plans of various town institutions and buildings. 330

52 Municipality of the City of Warsaw.—Cast iron plate for street pavement. 330

53 Paszepny, Charles, Warsaw.—Album containing plans of breweries and distilleries. 331

54 Dinaburg Arsenal.—Sapping instruments, and model of pontoon bridge. 333

55 Blach, John, Warsaw.—Statistical essay on the construction, management, and revenue of Russia; railways and graphic chart. 333

56 Military Engineering Department, St. Petersburg.—Armor plate, plans, and special editions. 333

57 Antonoff, Philip, St. Petersburg.—Plan in relief of Sebastopol during siege. 335

58 Hydrographical Bureau, St. Petersburg.—Marine charts and coast maps. 335

59 Department of Agricultural & Rural Industry, Statistical Bureau of St. Petersburg.—Statistical maps, showing the soil, climate, produce of corps, and cattle breeding in Russia. 335

60 Vassilieff, John, Pskoff.—Maps of Russia. 335

61 Topographical Bureau of the General Staff, St. Petersburg.—Maps and charts; photo, helio, lithographic works, and electrotype plates. 335

62 Timiriazeff, Demetrius, St. Petersburg.—Statistical atlas. 335

63 Municipality of the City of St. Petersburg.—Orographic plan of St. Petersburg. 335

64 Kittarg, Modest, St. Petersburg.—Statistical charts. 335

65 Flyin, Alexis, St. Petersburg.—Maps, charts, etc. 335

Physical, Social, and Moral Condition of Man.

66 Anikeyeff, James, Moscow.—Swimming apparatus. 340

67 Kittarg, Modest, Garetooka, Government and District of Moscow.—Disinfecting fluid and powder for dwellings and stables. 342

68 Menard, St. Petersburg.—Appliances for stopping up the chinks of window-frames in cold climates. 342

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

ANNEX TO MAIN BUILDING.

No. 106.—ANNEX TO MAIN BUILDING. (CARRIAGE ANNEX.)

Architect, H. J. SCHWARZMANN.

(SIZE, 346 x 231.)

This structure is built of corrugated iron, wood, and glass; a one-story building, with sky-lights, situated on Avenue of the Republic, immediately north of the Main Building, and east of the Department of Public Comfort.

Chemical Manufactures, Furniture.

Chemical Manufactures.

1 Rogers, Duck & Lewis, Fort Wayne, Ind.—Miller's elastic surfacing liquid, applied to the bare wood of carriage and car bodies. 202

1*a* Rosenburg, D. & Son, New York, N. Y.—Varnishes. 202

Furniture, etc.

1*b* Mason, John L., Camden, N. J.
a Soap cup. 213
b Fruit jars and nursing bottles. 215

2 Stewart, S. N., Philadelphia, Pa.
a Models of relief chair and mattress. 217
b Movable partition and balcony; stair rail. 227

2*a* Lawrence, Lewis P., Philadelphia, Pa.—Swing and nursery chair. 217

3 Pennsylvania Working Home for Blind Men, Philadelphia, Pa.—Mattresses. 217

3*a* Covert, Lewis B., New York, N. Y.—Extension step-ladder. 217

4 Wunderlich, John N., Philadelphia, Pa.—Adjustable table. 217

4*a* Wagner Drug Milling Co., Philadelphia, Pa.—Refrigerators. 217

4*b* Williams & Co., Nashua, N. H.
a Soapstone slabs, table tops, and shelves. 217
b Soapstone stoves, register frames, and foot warmers. 222
c Soapstone wash trays, sinks, griddles, etc. 224

5 Clark, I. D. & Co., Gloversville, N. Y.—Cradle, and baby's walking-table. 221

6 Thomas, Roberts, Stevenson, & Co., Philadelphia, Pa.—Coal and wood stoves, hot-air furnaces, cooking ranges. 222

6*a* Simonds' Manufacturing Co., New York, N. Y.—Furnace, ranges, registers, and apparatus for ventilating buildings. 222

7 Burnham, Chas., & Co., Philadelphia, Pa.
a Gas cooking and heating stoves. 222
b Weather strips. 227

7*a* Bissell & Co., Pittsburg, Pa.—Grates, ranges, and car heaters. 222

8 Cooey, J. G., Hyde Park, Mass.—Lamp cooking apparatus. 222

8*a* United States Soapstone Furnace Co., Boston, Mass.—Soapstone furnace. 222

9 Stuart, D. W., Philadelphia, Pa.—Stove. 222

10 Orr, Painter, & Co., Reading, Pa.—Ranges, heaters, stoves. 222

10*a* Westland, C. O., Troy, N. Y.—Parlor stove. 222

11 Spear, James, & Co., Philadelphia, Pa.—Stoves, heaters, ranges, low-down grates, etc. 222

11*a* Thatcher Heating Co., New York, N. Y.—Furnaces. 222

12 Reid & Cooper, Elmira, N. Y.—Cooking stove. Direct draft six-hole cooking stoves and ranges, constructed by new application of principles; warranted to give satisfaction in every instance. 222

12*a* Sheeler, Buckwalter, & Co., Royer's Ford, Pa.
a Parlor and cooking stoves, ranges, and heaters. 222
c Cherry seeder. 224

13 Swett, Quimby, & Perry, Troy, N. Y.—Parlor stove, cooking and heating ranges. 222

13*a* Richardson, Boynton & Co., New York, N. Y.—Furnaces, ranges, heaters, stoves, etc. 222

14 Thomas & Joerns, New York, N. Y.—Base-feeding parlor coal vases, movable base-feeding coal bins. 222

14*a* Rand, A. W., Philadelphia, Pa.—Heater and range. 222

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Heaters, Ranges, Household Utensils.

15 McDougall, S. T., New York, N. Y. —Gas stoves and cabinets, petroleum stoves, cooking apparatus, oil lamps and fixtures, gas burners. 222

15*a* Open Stove Ventilating Co., New York, N. Y.—Open grate, close stove, and warm air furnace combined 222

16 Monitor Oil Stove Co., Cleveland, O.—Cook stove. 222

17 Henis, Chas. F., Philadelphia, Pa.— Adjustable elbow for stovepipes. 222

18 Leibrandt & McDowell Stove Co., Philadelphia, Pa.—Stoves, etc. 222

18*a* Florence Sewing Machine Co., Florence, Mass.—Stoves. 222

19 Bentley, Jeffrey O., Philadelphia, Pa.—Hollow metallic steam-radiating base-board for heating rooms. 222

19*a* Langstrath, Thomas, Philadelphia, Pa.—Furnaces. 222

20 Dripps, Isaac, Philadelphia, Pa.— Safety ventilating heaters for railroad passenger cars. 222

21 Stuart, Peterson & Co., Philadelphia, Pa.—Stoves, hollow ware, and hardware goods. 222

22 Perkins & McFarland, Philadelphia, Pa.—Heaters and ranges. 222

23 Reynolds, J., & Son, Philadelphia, Pa.—Wood and coal furnaces, cooking range. 222

25 Morris & Haines, Philadelphia, Pa. —Heaters and range. 222

27 Hayes, Coulter & Co., Philadelphia, Pa.—Hot-air furnace, cooking range. 222

28 Grossius, John, Cincinnati, O.— Stove for school-houses, etc. 222

29 Barry & Lane, New York, N. Y.— Oven range and cast-iron setting. 222

30 Creamer, Wm. G., & Co., New York, N. Y.—Railway car ventilators, lamps, and car trimmings; house registers. 222

31 Nixon, George, & Son, Philadelphia, Pa.—Hotel range and boiler. 222

32 Bartlett, Job, & Sons, Philadelphia, Pa.—Furnaces, kitcheners, low grates. 222

33 Gale, D. A. T., Syracuse, N. Y.— Metallic bed bottom. 222

33*a* Weare Bros. & Co., Cincinnati, O. —Stove. 222

34 Barstow Stove Co., Providence, R. I., New York, N. Y., and Boston, Mass. —Stoves, ranges, furnaces, heaters, hollow ware, etc. Awarded Grand Medal of Merit at Vienna Exposition, 1873. 222

35 Hopkin, William, jr., Philadelphia, Pa.—Furnace, range, and boilers. 222

37 Sheppard, Isaac A, & Co., Philadelphia, Pa.—Stoves, ranges, furnaces, hollow ware. 222

39 Tuttle & Bailey Manufacturing Co., New York, N. Y.—Hot-air registers, ventilators, ornamental screens for steam coils, etc. 222

40 Resor, Wm., & Co., Cincinnati, O.—Cooking stoves. 222

41 Caldwell & Mather, Philadelphia, Pa.—Cooking ranges and heating furnace. 222

42 J. L. Mott Iron Works, New York, N. Y.—Ranges, heaters, stoves, and grates. 222

43 McCoy & Roberts, Philadelphia, Pa.—Portable hot-air furnaces. 222

44 Barker, Geo. R., Philadelphia, Pa. —Combined heating and ventilating flue apparatus and double register. 222

45 Gold's Heater Co., 47 Cliff street, New York, N. Y.—Heaters. Constructed on the principle of extensive radiating surfaces, which has the effect of reducing the temperature, so as not to injure the quality of the air warmed. Produces same result as heat made by steam or hot water—a pure and healthful atmosphere. 222

46 Williams, Charles, & Co., Philadelphia, Pa.—Heaters, ranges, ventilators. 222

47 Rathbone, Sard & Co., Albany, N. Y.—Stoves and ranges for coal or wood. 222

48 Abendroth Bros., New York, N. Y.—Stoves, ranges, plumbers' ironware, vases, fountains, hot-house and stable fittings. 222

50 Giles, H. G., & Son, Troy, N. Y.— Portable furnace and range, and parlor stoves. 222

51 Myers, George, Philadelphia, Pa. —Bath boilers and tanks. 222

52 Whitehead, Thomas J., South Paris, Me.—Combined cooking stove and hot-air furnace. 222

53 Chatain, Henry, Washington, D. C.—Baking oven. Patent for sale. One in operation at 713 Eleventh street, Washington, D. C. 222

54 National Stove Works, New York, N. Y.—Heaters and ranges. 222

55 Doyle, William, Albany, N. Y.— Stoves, furnaces, and ranges. 222

56 Comstock, Castle, & Co., Quincy, Ill.—Heating stove. 222

57 Keystone Hardware Manufacturing Co., Reading, Pa.
a Hot-air registers, and ventilators. 222
b Hardware, apple parers, fruit presses. 224

58 Detroit Stove Works, Detroit, Mich.—Cooking and coal and wood heating stoves. Manufacturers of the celebrated Crown Jewel Base Burner, Tefft's Wood Cook, and a full assortment of wood and coal cooking and heating stoves. 222

59 Johnson, Black, & Co., Erie, Pa.— Stoves, furnaces, and heaters. 222

60 Mitchell, Stevenson, & Co., Pittsburg, Pa.—Stoves. 222

61 Hessenbruch, Theophilus, Philadelphia, Pa.—Combination damper and ventilator. 222

62 Michigan Stove Co., Detroit, Mich. —Stoves, hollow ware, stove furniture, etc. Manufacturers of cooking, parlor, and heating stoves, from a mixture of Lake Superior and other first-class brands of iron. Our motto: "Everything made first-class, and to sell at reasonable prices." 222

63 Lesley, Alex. M., New York, N. Y.
a Gothic furnace. 222
b Refrigerators and coolers. 224

64 March, Brownback & Co., Limerick Station P. O., Pa.—Heaters, ranges, and hollow ware. 222

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

65 **Boyd, David, New York, N. Y.**—Flue radiator, flue and diaphragm attachment. 222

66 **New Haven Steam-Heating Co.,** New Haven, Conn.—Radiators and screens for low-pressure steam-heating. 222

67 **Miller, William, Cincinnati, O.**—Ranges. 222

68 **Corey, Jas. H., New York, N. Y.**—Culinary boiler and steam and exhaust valve combined. 222

69 **Duparquet, L. F., & Huot, New York, N. Y.**
a Ranges, broilers. 222
b Coffee and tea urns, cooking utensils. 224

71 **Shepherd, Chas. H., Philadelphia, Pa.**—Refuse of cork prepared for kindling fires. 222

72 **Belson, R. W., Philadelphia, Pa.**—Warm-air furnace. 222

73 **Williams & Co., Nashua, N. H.**—Stoves, washtrays, sinks, griddles, etc., of Francetown soapstone. 222

76 **Ferris, Geo. H., New York, N. Y.**—Domestic boiler, coffee still. 222

77 **Gardner, M. W., Green Island, N. Y.**—Combination knobs for stoves, ranges, etc. 222

78 **Birkey, John Q., & Co., Philadelphia, Pa.**—Gas heaters. 222

80 **Masser, H. B., Sunbury, Pa.**—Coffee roaster. 222

81 **Garrison, W. S., Volga City, Iowa.**—Tubular heating stove. This stove will warm from five to twenty rooms without extra fuel. Send for engraving and circular to Tubular Stove Co., Clear Lake, Iowa. 222

82 **Magee Furnace Co., Boston, Mass.**—Furnace, ranges, parlor stoves. Magee's Standard Hot-air furnace, cased with a patent non-conducting material. Same furnace for sheet iron casing. Same furnace for setting in masonry. The radiators of these furnaces are manufactured of heavy plate iron, and all warranted gas- and dust-tight. Their durability, economy, and successful operation have been fully demonstrated, and are guaranteed. Three samples of Magee's Standard Portable Ranges. Magee's Standard Brick Range (also exhibited in operation at the New England log cabin). Two samples of Magee's Standard Parlor Stove. Two samples of Magee's Standard Base Burner. Two samples of Standard Portable Low Down Grate. Magee's Standard Hall Stove. Magee's Standard Dining-Room Heater. Magee's Standard Cook Stove. Magee's Advance Cook Stoves. Magee's goods are eminently popular wherever used, and are warranted in every particular by the manufacturers. 222

83 **Read, Josiah M., Boston, Mass.**—Cooking range, stove dampers, lifters, and broilers. 222

83*a* **Croll, Benj. P., 639 Arch street,** Philadelphia, Pa.—Rhind's Patent Safety Lamp. Rhind's Patent Kerosene Safety Lamp has been placed upon the market, and the public is invited to test it. Its qualities are: First, it extinguishes itself when overturned; second, it extinguishes itself when dropped from the hand; it cannot be filled when lighted, and can be carried about at pleasure. It is so constructed that blowing down the chimney or turning down the wick to extinguish the light is unnecessary. The New York board of underwriters have endorsed and recommended its use. Sample price, $1.25, sent free upon receipt of P. O. order. Merchants supplied at reasonable prices. 222

83*b* **Beam, A. F., Philadelphia, Pa.**—Oil tanks and cans. 224

84 **Barrows, Savery & Co., Philadelphia, Pa.**—Hollow ware, irons, porcelain refrigerator, etc. 224

84*a* **Dunglison, Richard J., Philadelphia, Pa.**—Corn grater. 224

85 **Farson, E. S., & Co., Philadelphia, Pa.**—Refrigerators and coolers. 224

85*a* **Reidle, E. G., & Co., Philadelphia, Pa.**—Seamless tin boxes. 224

86 **Gravenstine, John, Philadelphia, Pa.**—Sideboard, refrigerator, and water-cooler combined. 224

86*a* **Perkins, Eliab, Sterling, Ill.**
a Refrigerator. 224
b Shutter. 227

87 **Soggs, C. W., Carbondale, Pa.**
a Fruit and vegetable parer and slicer. 224
b Folding adjustable ironing table and skirt-board. 225

88 **Lacy, Walter, Milwaukee, Wis.**—Steamless cooking shell. 224

90 **Kimball, Wm. S., Philadelphia, Pa.**—Refrigerator, filter, and cooler. 224

91 **Parker, Chas., Meriden, Conn.**—Coffee mills. 224

92 **Berney, Alfred, Boston, Mass.**—Teakettle, boiler, and steamer; dry, wet, and weighing measure combined; coffee cone. 224

93 **Patent Keg Co., Philadelphia, Pa.**—Paint and other cans. 224

94 **Keller Manufacturing Co., Harrisburg, Pa.**—Graduated quart measure. 224

95 **Hess, Abram, Philadelphia, Pa.**—Cooking apparatus. 224

97 **Shepard, Sidney & Co., Buffalo, N. Y.**—Japanned and stamped tinware, coal vases, stove boards, ice cream freezers, spice caddies. 224

98 **Stites & Co., Cincinnati, O.**—Iron measures, buckets, and paint pails. 224

99 **Broch, Isidor, Philadelphia, Pa.**—Water filter. 224

100 **Acquackanauk Manufacturing Co., Passaic, N. J.**—House furnishing woodenware; stepladders, hat racks, knifeboards, etc. 224

101 **Rohrer, Jeremiah, Lancaster, Pa.**—Refrigerator and water cooler combined. 224

101*a* **Beach, E. R., New York, N. Y.**—Match safe base for lamps. 224

103 **Ford, F. G., Philadelphia, Pa.**—Flour and ash pails and sieves combined; toys. 224

105 **Polhemus, J. H., New York, N. Y.**—Refrigerating cupboard, upright and chest refrigerator. 224

106 **Newark Tea Tray Co., Newark, N. J.**—Tea trays, children's trays, stove platforms, dustpans, and brushes. 224

107 **Dowst, Frank, Manchester, N. H.**—Refrigerator. 224

Household Utensils.

108 Allegretti Refrigerator Co., New York, N. Y.—Refrigerators, railroad refrigerator car, undertakers' preserving casket. 224

110 Olmsted, S., jr., Galesburg, Ill.—Sifter, cullender, and strainer combined. 224

111 Silver, W. H., New York, N. Y.—Egg beater, tin churns, and ice cream freezers. 224

112 Consolidated Fruit Jar Co., New Brunswick, N. J.—Fruit in Mason's glass jars. Manufacturers of Mason's fruit jars, oilers, can screws, and sheet metal wares. 224

112*a* Ketcham, E., & Co., New York, N. Y.—Tin ware, kitchen goods. 224

113 Scheider, J., & Co., Portland, Conn.—Stamped and japanned ware; house furnishing goods. 224

114 Cull, Henry, Philadelphia, Pa.—Combination sink and dish cupboard and toilet stand; kitchen and dining room furniture. 224

115 Missouri Valley Novelty Works, St. Joseph, Mo.—Combination kitchen safe. A money saving, labor saving, household convenience. With this safe a person need not move one step in making bread, cakes, or pastry, for all the necessary machinery and ingredients are centered within reach. 224

116 Simes & Tate, Philadelphia, Pa.—Water filter. 224

117 Randle, Wm. H., Baltimore, Md.—Water coolers and refrigerators. 224

120 Shaw, Charles A., **110** Tremont street, Boston, Mass.—Spice box. 224

121 Wilson Manufacturing Co., Philadelphia, Pa.—Clothes dryer, rack, nursery cup. 224

122 Rasin, William J., Philadelphia, Pa.—Water coolers, restaurant coolers. 224

124 Union Manufacturing Co., Toledo, O.—Washboards, churns, lawn hose carts, kitchen woodenware. 224

125 Vignal, Carl, New York, N. Y.—Ice cream refrigerator. 224

127 Schaum, John P., Lancaster, Pa.—Copper kettles and copper ware. 224

128 St. Louis Stamping Co., St. Louis, Mo.—Granite iron cooking and household utensils. 224

130 Bollenbacher, Geo. W., Bloomington, Ind.—Kneading table, with flour and meal chest combined. 224

132 Gem Soldering Iron Co., Philadelphia, Pa.
a Soldering casket. 224
b Portable shower bath. 226

133 McDonald, T. E., New Brunswick, N. J.—Washing machine and wringer. 225

134 Moore, Henry, & Son, Philadelphia, Pa.—Washing machine. 225

134*a* Caldwell, M. A., North East, Pa.—Combination brush and rollers for washboard. 225

135 Dugdale, Jas. K., White Waters, Ind.—Clothes wringers and washers, garden cultivators. 225

135*a* Gilbert, A. C., Philadelphia, Pa.—Ironing board. 225

136 American Machine Co., **430** Walnut street, Philadelphia, Pa.—Crown clothes wringers, frames of galvanized malleable iron, self-adjusting, pressure released from rolls, automatically, when out of use; efficient, practical, and durable. "Crown Fluters and Star Fluters," latest improved construction, celebrated for variety and perfection of work and ease of operation. 225

137 Chalfant Manufacturing Co., 507 North street, Philadelphia, Pa.—Proprietor and manufacturers of Mrs. Potts's patent cold-handle sad irons, polishing, laundry, and tailors' irons. 225

138 Vant, Aremas B., & Cheney, Henry O., Hopkinton, Mass.—Washer and wringer combined. 225

139 American Lever Wringer Co., Springfield, O.—Clothes wringer. 225

140 Applegate, Robert O., Philadelphia, Pa.—Ironing table. 225

141 Duncan, W. A., Syracuse, N. Y.—Washing machine. 225

142 Worden, A. E., Smyrna, Del.—Washing machine. 225

143 Colby Wringer Co., Waterbury, Vt.—Clothes wringer, little washer. 225

144 Bless & Drake, Newark, N. J.—Self-heating smoothing irons, tailors' geese, sad, laundry, and polishing irons. 225

146 Calver, Dr. G. W. H., Columbus, N. J.—Household ironing machine, heated by gas or cook stoves. Patent for sale. 225

147 Bailey Wringing Machine Co., New York, N. Y.—Clothes wringers. 225

149 Jennings, A. W., Bedford, O.—Clothes washers. 225

150 Gove, John C., Cleveland, O.—Fruit and provision preserving house, washing machine, adjustable index writer. 225

151 Lash, J. S., & Co., Philadelphia, Pa.—Washing machine, bench wringers. 225

154 Lamb, Geo. D., New Haven, Conn.—Little washer, iron holder. 225

155 Metropolitan Washing Machine Co., New York, N. Y.—Clothes wringers, washing machine, mangle. 225

157 Myers, A. G., New York, N. Y.—Water closets and plumbers' material. 226

157*a* Eisenmann, E., New York, N. Y.—Back and head support for the bathtub. 226

158 Blessing, C. A., **44** North Fifth street, Philadelphia, Pa., dealer in bath tubs, copper boilers, and plumbers' copper and cabinet ware in general.—Bath tubs, washstand, bidet. 226

158*a* Blakemore & Sherman, Philadelphia, Pa.—Washstand. 226

159 Carr, Wm. S., & Co., New York, N. Y.—Water closets, brass pumps, cabinet woodwork, and bathroom. 226

159*a* Pease, Charles A., Boston, Mass.—Washstand. 226

160 Wakefield Earth Closet Co., New York, N. Y.—Earth closets, combined commode and slop pail. 226

161 Carrigan, Peter, Philadelphia, Pa.—Tinned and nickel-plated copper bathtubs, bidet, footbath, pantry and bar sinks, drainer, and liquor cooler. 226

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Parts of Buildings, Hardware, etc.

162 Weaver & Pennock, Philadelphia, Pa.—Marble lavatory. 226

162*a* Landis, S. M., Philadelphia, Pa.—Turkish bath. 226

163 Vinton, C., Hartford, Conn.—Babies' bathtub, sitz bath. 226

164 Bacharach, M., New York, N. Y.—Street urinal. 226

165 Travis, Jos. L., Philadelphia, Pa.—Water closets, brass and plated work for plumbers and steam fitters. 226

166 Steeger, Henry, New York, N. Y.—Copper boilers, bathtubs, etc. 226

166*a* Barth, Gottlieb M., Philadelphia, Pa.—Improvement in window frames. 227

166*b* Ballentine, G. H., Philadelphia, Pa.—Cottage. 227

166*c* Ross, William J., West Boylston, Mass.—House building improvements, etc. 227

166*d* Perry, Jos. R., Wilkesbarre, Pa.—Wooden house. 227

166*e* Patterson, J. E., & Co., Pittston, Pa.—Doors, shutters, newel posts, etc. 227

166*f* Winans, Geo. G., Scranton, Pa.—Wainscoting. 227

166*g* Wilson, Jas. G., New York, N. Y.—Rolling wood shutters and venetian blinds. 227

166*h* Wight, Spencer A., Philadelphia, Pa.—Dust trap for ventilating bulk windows. 227

166*i* Comstock, C. C., Grand Rapids, Mich.—Doors, blinds, mouldings, etc. 227

166*j* Wilt, A., & Son, Philadelphia, Pa.—Sash, blinds, doors, mouldings, etc. 227

166*k* Huginin Manufacturing Co., New York, N. Y.—Automatic window supports. 227

166*l* Bradford, H., Philadelphia, Pa.—Window fastener. This is the only window fastener that locks automatically at any point, by side pressure, without defacing the frame. For sale by H. Bradford, room 26, Merchants' Exchange, corner Third and Walnut streets, Philadelphia. 227

166*m* Champion Fence Co., Kenton, O.—Iron fencing. 227

166*n* Manly, M. M., & Son, Philadelphia, Pa.—Iron railing, wirework, etc. 227

166*o* Clark & Co., New York, N. Y.—Brass and iron store fronts and self-coiling shutters. 227

166*p* Lake Champlain Manufacturing Co., Ticonderoga, N. Y.—Doors, etc. 227

166*q* Ford, W. A., Greensburg, Ill.—Window fastener. 227

166*r* Hayes, Geo. S., New York, N. Y.—Roofing. 227

167 Dayton, G. E., New York, N. Y.—Iron gutters, sashes, etc. 227

167*a* Crowell, S., Philadelphia, Pa.—Iron fence. 227

167*b* Hough & Co., Indianapolis, Ind.—Cast iron griffins. 227

167*c* Darby, E., & Son, Philadelphia, Pa.—Wire work. 227

167*d* Lynex, Richard, Philadelphia, Pa.—Wire work. 227

167*e* New York Slate Roofing Co. (limited), New York, N. Y.—Paints and roofing materials. 227

167*f* Garry Iron Roofing Co., Cleveland, O.—Roofing, window shutters, etc. 227

167*g* Augustine & Stuart, Philadelphia, Pa.—Metallic roofing and spouting. 227

167*h* Belts' Roofing Co., Cincinnati, O.—Roofing. 227

167*i* Martin, W. H., & Co., Philadelphia, Pa.—Roofing. 227

167*j* Fairbanks, A. G., Manchester, N. H.—Soapstone roofing. 227

167*k* Kensett, Jas. W., New York, N. Y.—Fireproof appliance for the security of buildings. 227

167*l* Swift, Charles N., New York, N. Y.—Adjustable ventilators. 227

167*m* Bates, J. C., Philadelphia, Pa.—Ventilating apparatus. 227

167*n* Bracher, T. W., New York, N. Y.—Ventilators. 227

167*o* Wallace, S. J., Keokuk, Ia.—Fire-proof floors and roofs. 227

167*p* Penn Roofing Co., Philadelphia, Pa.—Roofing felt, etc. 227

167*q* Humboldt Iron Works, New York, N. Y.—Illuminating tiles. 227

Clothing, Jewelry, and Ornaments; Traveling Equipments.

167*r* Watts, Ethelber, Philadelphia, Pa.—Portable bath trunk. 255

Medicine, Surgery, Prothesis.

167*s* Crandall, Chas. J., New York, N. Y.—Crutches. 276

Hardware, Edge Tools, Cutlery, and Metallic Products.

167*t* Wickersham & Bro., Philadelphia, Pa.—Brass and gold pipe, etc. 283

167*u* Eckel, Herman, Cincinnati, O.—Enameled iron hollow ware. 283

167*v* Musgrove & Son, New York, N. Y.—Fancy articles for tin wedding presents, tin, japanned and copper ware. 283

167*w* Lalance & Grosjean Manufacturing Co., New York, N. Y.—Granite ware, etc. 283

168 Rowland, William, & Harvey, Philadelphia, Pa.—Carriage, locomotive, and car springs; tire, sheet, cast, machinery, and blister steel. Re-rolled Norway iron, rolled and slit Norway nail rods. 284

168*a* Mott, J. L., Iron Works, New York, N. Y.—Plumbers' cast iron ware, plain, galvanized, and enameled. 284

169 Burwell, William, & Bro., Philadelphia, Pa.—Carriage mountings in silver, oreide, and gold plated. 284

169*a* Anderson, W. W., Philadelphia, Pa.—Models for carriage shackle. 284

170 The Philadelphia Axle Co., Philadelphia, Pa.—Iron and steel axles, improved wheels. 284

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Hardware, Parts of Carriages.

171 Hoopes, Bro., & Darlington, West Chester, Pa., & at 27 James street, Long-Acre, London, England.—Vehicle wheels of hickory and oak, fine quality and workmanship, thoroughly seasoned. Particular attention given to special styles for builders of private coaches; also Dorman patent wheels with wood hub and iron flanges, spokes secured in hub by wedges, and warranted not to become loose in service. Wheel material and shafts of all kinds to order. 284

172 Topliff & Ely, Elyria, O.—Tubular bow, shaft, and pole sockets for carriages; side-spring equalizers. 284

173 Kent, D. H., & Co., Wilmington, Del.—Iron hardware and coach material. 284

174 Benezet & Co., Philadelphia, Pa.—Carriage and wagon springs. 284

175 Dann, Bros., & Co., New Haven, Conn.—Carriage woodwork. 284

176 Shields, Thomas, Philadelphia, Pa.—Carriage bolts and clips, nuts, washers, etc. 284

177 Kunzig, Christian, Philadelphia, Pa.—Gold and silver carriage mountings. 284

178 Metal Stamping Co., New York, N. Y.—Carriage curtain loops and buckles, knob fasteners, etc. 284

179 Brown, S. N., & Co., Dayton, O.—Sulky, buggy, and coach wheels, hubs, spokes, bows, shafts, poles, and yokes. 284

180 Dexter Spring Co., Hulton, Pa.—Vehicle springs. 284

181 Seidler, Fred., Mechanicsburg, Pa.—Spokes, felloes, hubs, shafts, poles, bows, wheels. 284

182 Sheldon & Co., Auburn, N. Y.—Carriage and wagon axles. 284

183 McKnight & Rohrer, Charlestown, W. Va.—Carriage rims; axe, pick, sledge, hammer, and hatchet handles. 284

184 Advena & Heald, Philadelphia, Pa.—Carriage and wagon axles; steel boxes. 284

185 Shields, Wm., Philadelphia, Pa.—Carriage bolts. 284

186 Cowles, C., & Co., New Haven, Conn.—Carriage trimmings and hardware. 284

187 New Haven Wheel Co., New Haven, Conn.—Wheels for vehicles. All the usual styles and qualities of unpatented wheels. Original manufacturers of the celebrated "Sarven" patent wheel. 284

188 Davis, John G., & Son, Philadelphia, Pa.—Spokes, hubs, rims, wheels, and plow handles. 284

189 Sandusky Wheel Co., Sandusky, O.—Carriage woodwork. 284

190 Woolworth, James, Sandusky, O.—Tool handles. 284

191 Smith, H. D., & Co., Plantsville, Conn.—Carriage and coachmakers' forged hardware. 284

192 Urmston, John, Rahway, N. J.—Hubs. 284

193 Crane, Samuel O., Newark, N. J.—Carriage wheels. 284

194 Jones, Phineas, & Co., Newark, N. J.—Coach and carriage wheels, spokes, hubs, rims, etc. 284

195 Kilburn, Isaac B., Newark, N. J.—Bent carriage woodwork and materials. 284

196 Smith, Alfred E., Brownville, N. Y.—Carriage axles. 284

197 Searls, Anson, Newark, N. J.—Carriage specialties. Whip sockets adapted to all kinds of carriages, with improved fasteners; style, finish, and durability The "Centennial" top props for carriages, perfected; any joint will fit; no rattle, and no nuts lost. 284

198 Union County Manufacturing Co., Elizabeth, N. J.—Wheels and wheel stock. 284

199 Skelly, Thomas, Philadelphia, Pa.—Carriage bolts, axle clips, nuts, etc. 284

200 Lockwood, C. N., & Co., Newark, N. J.—Carriage lamps and plated carriage ware. 284

201 Silas, Rogers, & Co., Stanfordville, N. Y.—Carriage and truck axles. 284

202 Springer, Morley, & Gause, Wilmington, Del.—Coach and carriage wheels, hubs, spokes, and felloes. 284

203 Baker & Co., Waller, O.—Wheels, hubs, spokes, felloes, gearing, wood in rough, etc. 284

204 Sippel, Chr., Newark, N. J.—Fancy turning for carriage trimmings. 284

204*a* Rubber Step Manufacturing Co., Boston, Mass.—Carriage steps, etc. 284

205 Dalzell, D., & Sons, South Egremont, Mass.—Carriage axles, axle boxes. 284

205*a* Seward, M., & Son, New Haven, Conn.—Carriage hardware. 284

206 Sammes, J. B., & Co., New York, N. Y.—Hubs. 284

207 Olds, N. G., & Sons, Fort Wayne, Ind.—Wheels, hubs, buggy seats, and plow handles. 284

208 Leippe, Jacob A., Anchor Bending Works, Lancaster, Pa.—Shafts and rims. 284

209 Wrigglesworth, W. J., Darlington, Wis.—Wheels for carriages, buggies, wagons, etc. 284

210 Logansport Manufacturing Co., Logansport, Ind.—Wagon and carriage spokes, bent felloes, shafts, and soles. 284

211 Cunningham, Portz, & Co., Fostoria, O.—Spokes, felloes, neck yokes, whiffletrees, pick and hammer handles, etc. 284

212 Strahorn, Pierson, & Co., Toughkenamon, Pa.—Carriage wheels. 284

213 Lebzelter, Philip, Lancaster, Pa.—Spokes, felloes, shafts. 284

214 Paine Bros., New York, N. Y.—Hickory and ash handles, carriage and wagon woodwork, hardwood lumber. 284

215 Stockton Spoke Works (W. V. Case, Bro., & Co.), Stockton, N. J.—Spokes, whiffletrees, neck yokes, handles, and carriage woodwork. 284

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Wooden and Basket Ware, Carriages.

216 Woodburn Sarven Wheel Co., Indianapolis, Ind.—Sarven and common wood hub wheels. Manufacturers of the celebrated "Sarven Patent Wheel," used for all kinds of vehicles; also, common wood hub wheels. Send for our Price List. 284

217 Frohock, Wm. Thompson, Philadelphia, Pa.—Suspension steel buggy wheels, nickel-plated spokes, etc. 284

218 Hayden & Smith, Auburn, N. Y.—Saddlery, and carriage hardware; finished forgings for carriages; slot fifth wheels, Saunders' patent shaft shackles, patent iron-clad hames, Scotch hames, Concord hames, Kinne's patent trace buckles; all wrought, guaranteed, Bradoon bits. 284

219 Mosier, John L. H., New York, N. Y.—Ironwork for pleasure carriages and tools for carriage smiths. 284

219*a* Welsh & Lea, Philadelphia, Pa.—Carriage and tire bolts, nuts, axle clips, etc. 284

Fabrics of Vegetable, Animal, or Mineral Materials.

220 Gould, C. H., Philadelphia, Pa.—Rubber steps, etc. 285

220*a* Jones, H. C., & Co., Philadelphia, Pa.—Brush stocks and handles. 286

220*b* Robinson, Fowler, & Co., San Francisco, Cal.—Brooms with metallic socket. 286

220*c* Merick, E. J., Rochester, N. Y.—Brooms. 286

220*d* Meinecke, Adolph, Milwaukee, Wis.—Ladies' baskets and willow ware. 289

220*e* French Paper Ware Co., Springfield, N. J.—Pails, tubs, etc. 289

220*f* Tower, Wm. F., & Bro., Hinsdale, Mass.—Ash baskets, for use in mills. 289

220*g* Dempsey Wicker-covered Glassware Co., Philadelphia, Pa.—Wicker-covered bottles. 289

220*h* Dodson & Roberts' Manufacturing Co., Philadelphia, Pa.—Rattan and wire goods. 289

220*i* Eberhardt, F., Philadelphia, Pa.—Baskets, cradles, workstands, etc. 289

220*j* Zinn, Chas., & Co., New York, N. Y.—Baskets, willow ware, etc. 289

220*k* Crane Bros., Westfield, Mass.—Paper baskets, buckets, cans, etc. 289

220*l* Hapgood & Smith, Athol, Mass.—Match sticks. 289

Carriages, Vehicles, and Accessories.

221 Rogers, Wm. D., & Co., Philadelphia, Pa.—Pleasure carriages. 292

222 Beckhaus, Jos., Philadelphia, Pa.—Coach, landaulet, phaeton, coupé. 292

223 McLear & Kendall, Wilmington, Del.—Phaetons, rockaway, family, park, and seaside carriages. 292

224 Petry, Geissel, Bayha, & Co., Philadelphia, Pa.—Finished and unfinished landaus. 292

225 Jacobs, S. W., & Son, Philadelphia, Pa.—Pleasure carriages. 292

226 Childs, Geo. K., Philadelphia, Pa.—Shifting top buggy, track sulky. 292

227 Lane, D. M., & Son, Philadelphia, Pa.—Extension top brett, phaeton, falling top buggy. 292

228 Haskell Bros., Philadelphia, Pa.—Road top wagon. 292

229 Brewster & Co., of Broome street, New York, N. Y.—Town and park carriages, road wagons, and sleighs. 292

230 Wood Bros., New York, N. Y.—Brougham, vis-a-vis, top wagon, landau, T and dog cart. 292

230*a* Hill, J. W. R., Brentwood, N. Y.—Carriage, with pedal driving attachment. 292

231 Stone & Kaighn, Philadelphia, Pa.—Doll carriage, boys' wagon, and wheelbarrow. 292

232 Caffrey, Chas. S., Camden, N. J.—Skeleton sulky, shifting top buggy, phaetons. 292

232*a* Oppenheim, Fred., San Francisco, Cal.—Buggies. 292

233 Townsend, Chas. T., New Haven, Conn.—Phaeton and wagon bodies. 292

234 Brewster, J. B., & Co., 25th street, New York, N. Y.—Landau town coach, demi-landau, coupé, victoria, windsor wagons. Established by our Mr. J. B. Brewster, in 1838. Sole makers of "The Windsor Wagon," with vertical steel plates in axle beds. A visit to the factory at Twenty-fifth street, New York, will repay any one. Warerooms, Fifth Avenue and Twenty-first street, N. Y. 292

235 Doland & Scherb, San Francisco, Cal.—Light carriages. 292

236 Stivers, Rufus M., New York, N. Y.—Pleasure carriages or buggies. 292

237 Bailey & Wilson, Oxford, Pa.—Trotting wagon. 292

238 Studebaker Bros. Manufacturing Co., South Bend, Ind.—Top buggy. 292

240 Hetfield & Jackson, Rahway, N. J.—Light pleasure carriages. 292

241 Cadwallader, Fitz Gibbon, & Co., Trenton, N. J.—Road wagon, top buggy. 292

242 Rech, Jacob, Philadelphia, Pa.—Phaetons, top buggy, Jenny Lind. 292

243 Scranton, L. S., Grand Rapids, Mich.—Track sulky, buggy. 292

244 Clymer, F. T., Wilmington, Del.—Hearse, phaeton, and buggy body. 292

245 Colyer, J., & Co., Newark, N. J.—Westchester, rockaway, top buggy, road wagon. 292

245*a* Crosby, Gilsinger, & Co., Rondout, N. Y.
a Light carriages. 292
b Velocipede. 293

246 Randall, Jas. V., Newtown, Pa.—Extension phaetons. 292

247 Guthrie, Jones, & Co., Wilmington, Del.—Buggies. 292

248 Cunningham, James, & Son, Rochester, N. Y.
a Landaus, landaulet, top buggy. 292
b Hearse. 293

249 Gosling, J. W., Cincinnati, O.—Brett carriage, top buggies, side bar wagon. 292

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27–45.

Carriages, Cars.

250 Renick, Curtis, & Co., Greencastle, Ind.—Combined carriage and buggy; combined carriage and buggy bodies. 292

251 Wright, W. H., & Co., Wilmington, Del.—Double jump seat carriage. 292

252 Mellinger Jump Seat Co., Harrisburg, Pa.—Jump-seat bodies. 292

253 Hall, James, & Son, Boston, Mass.—Berlin coach; top and shifting top buggies. 292

254 Enders, J., & Co., Louisville, Ky.—Top buggy with side bar attachment. 292

255 Sargent & Ham, Boston, Mass.—Extension top park phaeton. 292

256 Scovill, S. S., & Co., Coldwater, Mich.—Box buggy and track sulkies. 292

257 McDermott, John, & Bros., Washington, D. C.—Shifting top buggy. 292

258 Green, John, Wilmington, Del.—Jump seat and doctors' rockaways. 292

259 McLear, Alfred, West Chester, Pa.—Shifting seat carriage and shifting top buggy. 292

260 Gilman, F. C., Montpelier, Vt.—Track sulky, open wagon. 292

261 Rodgers, S. C., Philadelphia, Pa.—Shifting top, side bar wagon; one-man wagon. 292

263 Behlen, Charles, Cincinnati, O.
a Barouche, physician's phaeton. 292
b Hearse. 293

264 Tonsend, Chas: T., New Haven, Conn.—Phaeton, road wagon, and willow shell bodies. 292

265 Killam, H., & Co., New Haven, Conn.—Pleasure carriages. 292

266 Manville, B., & Co., New Haven, Conn.—Rockaways, cabriolet, T cart. 292

267 Hub Publishing Co., New York, N. Y.—Hand drawings of carriages. 292

268 Grube, Chas., New York, N. Y.—Park phaeton, top buggy. 292

269 Goold, James, & Co., Albany, N. Y.
a Drawing-room coach, buggy. 292
b Sleighs, cutter. 295

270 Stone, Frank P., Chicago, Ill.—Porter buggy. 292

271 Pray Bros., Boston, Mass.—Goddard buggy, track sulky. 292

272 Packard, C. F., & Co., West Farmington, Me.—Side spring platform wagon, and track wagon. Given first mention and silver medal at the Maine State Fair, 1874. 292

273 Sargent, William P., & Co., Boston, Mass.
a Buggies, carriages. 292
b Sleighs. 295

274 Smith, J. T., & Co., Boston, Mass.
a Top buggies. 292
b Sleighs. 295

275 Durham & Wooster, New Haven, Conn.—Landaulet couplet, London phaeton. 292

276 Dibble, C. F., & Co., Philadelphia, Pa.—Doctors' gig, pony phaeton. 292

277 St. James, C., Pittsfield, Mass.—Single carriage, thill and pole. 292

279 Jones, Phineas, & Co., Newark, N. J.—Track sulky. 292

280 Tibbals, Lewis P., New York, N. Y.—Baby carriage. 293

280*a* New Haven Folding Chair Co., New Haven, Conn.—Child's carriage. 293

281 Abbott, Downing & Co., Concord, N. H.—Concord coaches. 293

281*a* Dare, C. W. F., New York, N. Y.—Child's carriage. 293

282 Conover, J. A., & Son, New York, N. Y.—Spring leaping-horses, baby carriages. 293

282*a* Oppenheimer, Solomon, Newark, N. Y.—Improvement in children's carriages. 293

283 Yost, T. A., Philadelphia, Pa.—Children's carriages and velocipedes. 293

283*a* Wentworth, Chas. H., Eddystone, Pa.—Child's folding carriage. 293

284 Richardson, McKee & Co., Boston, Mass.—Child's carriage. 293

285 Montpelier Manufacturing Co., Montpelier, Vt.—Children's carriages. 293

285*a* Jury, F. Hermann, New York, N. Y.—Child's folding carriage. 293

286 McIntire, J. Frank, Boston, Mass.—Children's carriages. 293

287 Cole & Ballard, Newark, N. J.—Baby carriages, velocipede, sled, and wagon. 293

288 Newgeon & Shelton Carriage Co., Birmingham, Conn.—Children's carriages. 293

289 Steinbach, Geo. P., Baltimore, Md.—Children's convertible sleeping coaches and walking and nursery chair and vehicle. 293

290 Fraley, G. W., & Co., Philadelphia, Pa.—Baby's canopy-top coach, velocipede. 293

291 Crandall & Co., New York, N. Y.—Children's carriage. 293

292 McIntire, Samuel, New York, N. Y.—Baby carriages. 293

293 Crandall, J. A., Brooklyn, N. Y.—Child's carriage and cradle combined, play goods, etc. 293

294 Youle, William, Norwalk, Conn.—Hearses. 293

295 Paris Hill Manufacturing Co., Paris Hill, Me.—Children's carriages and sleds. 293

296 Hunt, Wm., Camden, N. J.—Passenger vehicles. 293

297 Pickering, Thos. R., Portland, Conn.—Velocipede. 293

298 Smith, John, & Son, South Gray, Me.—Sleigh. 295

298*a* Mayer, John W., Rondout, N. Y.—Albany cutter. 295

299 Smith, Hugh, Gray, Me.—Double and single sleighs. 295

299*a* Wagner, Geo. W., Roxborough, Pa.—Sleigh. 295

300 Russell, Joseph, cor. Congress & Oak streets, Portland, Me.—Fine carriages and sleighs. 295

300*a* Dann Bros. & Co., New Haven, Conn.—Carriage wood work, bodies, seat backs, gearings, bows, shafts, etc. 296

300*b* Hill, J. R., & Co., Concord, N. H.—Harness. 296

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

Scientific Instruments, Railway Cars and Appliances.

301 Pennsylvania Working Home for Blind Men, Philadelphia, Pa.—Harness. 296

301*a* Phillips, Samuel R., Philadelphia, Pa.—Four-in-hand harness on wooden horses. 296

301*b* White Manufacturing Co., Bridgeport, Conn.—Carriage trimmings and lamps. 296

302 Dohan, J. F., & Co., Binghamton, N. Y.—Carriage curtain-lights and other stamped carriage goods. 296

303 Baldwin, Jos., & Co., Newark, N. J.—Saddlery hardware, hand forged and malleable; bits. 296

304 Hayden & Smith, Auburn, N. Y.—Hames and trimmings for harness. 296

Institutions and Organizations.

304*a* Barry, Peter, New York, N. Y.—The arms of the Revolutionary patriots. 312

Scientific and Philosophical Instruments and Methods.

304*b* Keller Manufacturing Co., Harrisburg, Pa.—Graduated measure. 322

304*c* Fournier, Stanislas, New Orleans, La.—Tell-tale clock and starter. 323

Physical, Social, and Moral Condition of Man.

304*d* Curtis, Albert W., Williamsport, Pa.—Centennial swing. 340

Motors and Apparatus for the Generation and Transmission of Power.

304*e* Miller, Joseph A., Providence, R. I.—Models for locomotive boilers. 550

Hydraulic and Pneumatic Apparatus, Pumping, Hoisting, and Lifting.

304*f* Miller, A. R., & Son, Attica, N.Y.—Automatic carriage jack. 563

304*g* Miller, Joseph A., Providence, R. I.—Hose carriage. 564

Railway Plant, Rolling Stock, and Apparatus.

305 Jackson & Sharp Co., Wilmington, Del.—Ordinary and narrow gauge passenger cars. 571

306 Harlan & Hollingsworth Co., Wilmington, Del.—Parlor car, narrow gauge passenger car. 571

306*a* Clark, Geo. P., Boston, Mass.—Combined locomotive, baggage, and passenger car. 571

307 Haase, John A., Philadelphia, Pa.—Model freight car, hose shield, floor and door clamps, ratchet drills. 571

308 Pullman's Palace Car Co., Chicago, Ill.—Drawing-room car, hotel car. 571

309 Wason Manufacturing Co., Springfield, Mass.—Railway passenger car. Established 1845. Railway car builders. Particular facilities for doing foreign work. 571

311 Hayden, James, Philadelphia, Pa.—Car model, showing improvement in bumper springs, platform and draw heads. 571

312 Ustick, Stephen, Philadelphia, Pa.—Car model, showing improved coupling and journal lubricators. 571

313 Stephenson, John, & Co., New York, N. Y.—One and two horse street cars. 571

314 Towle Manufacturing Co., New York, N. Y.—Bell punches and fare registers. 571

314*a* Crosby & Hecker, Rondout, N. Y.—Car coupler. 572

314*b* Russell, H. G., Lincoln, Ill.—Car coupler. 572

314*c* World's Champion Car Coupler Co., Tiffin, O.—Car coupler. 572

315 Darling, Samuel, Providence, R. I.—Improved ventilating car window. Manufacturer of a great variety of new patent inkstands, on new principles, being so arranged that the writer can regulate, with great accuracy, the quantity of ink to be taken upon the pen. They are made in styles and at prices to suit all classes of writers. One (non-spilling) is especially adapted for home use. Pen-cleaners, on a new principle, an indispensable article. A new glass for church windows, which will keep out the sun, and let in more light than any before produced. A standard medicine-dropper, by which medicine can be dropped with facility in drops of the exact standard size. 573

315*a* Hindman, Thos., Pittsburg, Pa.—Whiffletree and shaft-coupling. 573

315*b* Blaisdell, Geo. P., North Easton, Mass.—Self-lubricating carriage axles. 573

315*c* Locke, John, Philadelphia, Pa.—Hubs for wheels. 573

315*d* Hunter, G. W., Philadelphia, Pa.—Railroad tie lifter. 573

316 Brill, J. G., & Co., Philadelphia, Pa.—Street railway car. 577

317 Morgan, Richard Price, jr., Bloomington, Ill.—Elevated railway for cities, adopted by the Rapid Transit Commission of New York, Oct. 4, 1875. This structure is designed to sustain a double track steam railway, over the centre of streets, at such height as not to interfere with their ordinary traffic. The transverse supports that carry the longitudinal trusses, which directly uphold the tracks, spring from the sidewalks, opposite each other, near the curb, meeting over the centre of the street, forming an effective pointed gothic arch. 577

317*a* Crozier, H. P., Brooklyn, N. Y.—Horse car starter. (*Outside.*) 577

318 Jones, J. M., & Co., West Troy, N. Y.—Street and excursion street cars. 577

319 Williams, R. L., Middle Granville, N. Y.—Self-coupler for cars. 577

320 Schopp, Phil. J., Louisville, Ky.—Pneumatic screw ventilator. 577

321 Crocker, L. O., East Braintree, Mass.—Conductors' railway ticket punches. 577

322 Stewart, S. N., Philadelphia, Pa.—Model of an ice boat. 594

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

GREAT BRITAIN.

323 McNaught & Smith, London.—Landau, barouche, coupé, and brougham. 292

324 Peters & Sons, London.—Park and road drags, landau, broughams, phaetons, and Whitechapel cart. 292

325 Hooper & Co., London.—Four-in-hand drag, phaetons, barouche, brougham, and landau. 292

326 Thorn, C., Norwich.—Phaetons, brougham, gig, charabanc, shooting cart, landau, and wagonette. 292

327 Roberts, John, Manchester.—Pony phaeton. 292

328 Mulliner, Henry, Leamington.—Brougham, Whitechapel cart, landau, and dog-cart phaeton. 292

329 Windover, C. S., London.—Brougham, phaetons, and landau. 292

330 Thompson, Chas., London.—Child's perambulator. 293

330*a* Haynes & Jeffries, Coventry.—Bicycles. 293

330*b* Roberts, C. D., Coventry.—Bicycles. 293

NEW SOUTH WALES.

331 Robertson, John, Sydney.—Concord buggy with canoe front; wood work and iron work entirely of New South Wales material. 292

CANADA.

332 Legaie, J. B., Quebec.—Cariole. 292

333 Ashley, Chas., Foxboro'.—Phaeton. 292

334 Knox & Wrothwell, Goderich.—Buggy. 292

335 De Wolfe, J. M., Halifax.—Phaetons. 292

336 Ledoux, B., Montreal.
a Landaulet. 292
b Double sleigh. 295

337 Kew, Wm., & Son, Beamsville.
a Top buggy. 292
b Sleigh. 295

338 Wood & Lyons, Brantford.
a Buggies. 292
b Cutter. 295

339 Conboy, Daniel, Uxbridge.—Adjustable-back sleigh. 295

GERMANY.

340 Dick & Kirschten, Offenbach-on-Main.—Axles, springs, fifth wheels, etc. 284

AUSTRIA.

341 Armbruster, S., Vienna.
a Landau. 292
b Harnesses and saddlery. 296

ITALY.

342 Locati, Alessandro, Torino.—Street cabs. 294

RUSSIA.

343 Schmidt, Edward, St. Petersburg.—Spring tester. 280

344 Nellis, Charles, St. Petersburg.—Victoria. 292

345 Wemick, Joseph, Warsaw.—Drosky. 292

346 Arbatsky, Nicholas, Moscow.
a Trotting wagon. 292
b Sledge, with robe. 295

347 Zimmerman, Roman, Moscow.—Saddlery and harnesses. 296

348 Elevin, Michael, Moscow.—Harnesses. 296

349 Brandstetler, Frederick, Warsaw.—Harnesses. 296

350 Shishkin, Stephen, Moscow.—Harnesses. 296

351 Koorikoff, P., St. Petersburg.—Harnesses. 295

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 27-45.

INDEX OF EXHIBITORS, COMMISSIONERS, ETC.

DEPARTMENTS I., II., III.

A.

Aalborg Chemical Works, Soda, 223; Artificial manure, 224.
Aalborg Syrup & Spirit Factory, Liquor, 224.
Aarestrup, J., Piano, 364.
Aargau, Ass'n of the Canton of, Map, 354.
Aargau, Building Direction of, Works, 355.
Aargau Reformatory, Reports, 357.
Abad Bros., Cloth, 273.
Abad, Jeronimo, Pyrolusite, 87.
Abadji, Molagha, Divan stuff, 294.
Abas Ousta, P., Vest, etc., 300.
Abass Agha, Horseshoes, 97.
Abazar, Ketour, Ebony crutches, 305.
Abbas Riza, Silk, 298.
Abbey, C., & Sons, Foil, 136.
Abbott, Downing, & Co., Coaches, 381.
Abbott, H. L., Judge, Gr. XVI., 17.
Abbott Pavement Co., Pavement, 54.
Abdi Agha, Dishes, 292; Oats, 307.
Abdi Azadé Ali Bey, Embroidery, 302.
Abdi Bey, Chrome, 97.
Abdi Effendi, Carpet, 297.
Abdoulah, A., Morocco, 310.
Abdoulah Keire, Z., Calico, 294.
Abdoullah, Almonds, 307.
Abdoullah Arouniyé, Clogs, 301.
Abdoullah Bey, Antimony, 97.
Abdoullah Chili, Cushion cover, 304.
Abdoullah Effendi, Carpet, 297.
Abdoullah, O., Leather, 311.
Abdoullah Oglou, Hassan, Shawl, 296.
Abdoullah, T., Essence, 292.
Abdourahman, Aman, Whip, 305.
Abdourahman Effendi, Gall nuts, 306.
Abdourahman, M. O., Dinner sets, 293.
Abdourahman, T., Jacket, 300; Boots, 301; Sumac berries, 304; Peas, 307; Wax, 312.
Abdul Hahat, Towels, 294.
Abdul Hamad, Foulard, 298.
Abdul Kader, Cloth, 295.
Abdul Kader Ousta, Jacket, 300.
Abdul Keri, Boots, 301.
Abdul Medjid, Skin, 310.
Abegglen-Perrin, Chalets, 358.
Abello y Boada, P., Alabaster, 89.
Abendroth Bros., Stoves, 375.
Aberdare Mine, Coal, 67.
Abernethy, A. S., Alternate, 9.
Abhou, A., Boots, 301.
Abhou Oglou Avediz, Boots, 301.
Abil, Saucers, 292; Jewelry, 302; Cover, 303; Snuff, 309.
Abir Tarip, Cotton, 294; Silk, 298.
Aboriginal Mission Station, Hops, 163.
Abplanalp, J., Wood carvings, 358.
Abrahams Bros., Books, 221.
Abrahamson, A., Pupils' work, 362.
Abren e Lima, J. A., Cloth, 286; Work, 288.
Academy of Fine Arts, Work, 366.
Acadia Catherine Gold Mining Co., Ore, 65.
Accarisi, G., Jewelry, 234.
Accino y Vazquez de Araujo, E., Galena, 88.
Acebal y Menendez, B., Ore, 89; Stone, 91.
Acero, A., Iron, 271.
Acero, J., & Son, Hats, 276.
Achmet Agha, Skin, 311.
Achon, J., Prints, 273.
Ackens, Grand, Ry, & Co., Cloths, 203.
Ackerly, James, Dogtooth spar, 71.
Ackermann, T., Books, 347.
Acosta de Quirolo, Josefa, Crystal rock, 83.
Acquackanauk Mfg. Co., Woodenware, 376.
Acquadro, Paolo, Postal box, 365.
Adams & Co., Glassware, 108; Silks, 150.
Adams, Dan, Hat rack and chairs, 109.
Adams, J., Wheat, 163.
Adams, J. H., Ore, 47.
Adams, J. S., & Co., Jewelry, 128.
Adams, R., Hinges, 153.
Adams, R. T., Filters, 160.
Adams, S. C., Map, 321.
Adams, S. J., Texas, 14.
Adams, Walter, Books, etc., 338.
Adams White Lead Co., White lead, 105.
Adams, W. R. M., Bolt, 140.
Adana, Government of, Galena, 96; Gall nuts, 306, 310; Skins, 311.
Addis, J. B., & Sons, Tools, 153.
Addy, M., Judge, Group I., 15.
Adelaide Museum, Birds, 167.
Adelsvärd, Baron Th., Ore, 78; Copper, 79.
Adjustable Folding Chair Co., Chair, 109.
Adler, Geo., Cardboard work, 205.
Adler, R., Musical instruments, 349.
Adler, W., Jewelry, 318.
Adlischweil Silk Goods Factory, Silks, 212.
Admiralty, Lords of the, Model, 174.
Admiralty Tyora Works, Boiler plates, 98.
Adret, A., Carpets, 297.
Adrianople, Gov't of, Ores, 96; Nuts, 306.
Advena & Heald, Axles, 379.
Adver, M., Carpet, 297.
Advisory Board, Bricks, 188; Yarn, 189.
Aebi & Landry, Watches, 354.
Afong & Achuck, Sugars, 251.
Aghoba, K., Lentils, 309.
Aghop, Erzeroum, Fox furs, 304.
Aghop, Hodja, Cord, 293; Ribbons, 298; Bonnet, 301.
Aghop, Miss, Lace, 302.
Aghop, S., Calicoes, 294.
Agosti, Agnes, Embroideries, 234.
Agosti Brothers, Olive oil, 232.
Agostina Della Seta, A., Olive oil, 231.
Agregado, A., Shirting, 280.
Agricultural and Prof'l Colony, Statutes, 353.
Agricultural and Rural Industry, Department of, Maps, 373.
Agriculture and Commerce, Dep't of, Prizes, 344.
Agriculture, Industry, and Commerce, Board of, Coal, 89.
Agriculture, Provincial Board of, Ores, 88.
Aguair, J. C. da Costa, Bookstand, 253.
Agudo, A, Handkerchief, 277.
Agudo, G., Soap, 271.

Aguilar, B., Treatise, 266.
Aguilar Calvo, A., Flannel, 275.
Aguilar, Francisco D., Minerals, 83; Lime, 84.
Ahern & Walsh, Tools, 190.
Ahgme Agha, Wool, 314.
Ahido, Yataghan, 304.
Ahl, D., Splints, 135.
Ahlberg & Ohlsson, Instruments, 363.
Ahmed Agha, Thread, 294; Wool, 296; Yataghan, 304; Resin, 307; Leather, 310; Wax, raisins, 312.
Ahmed, Aintab, Honey, 312.
Ahmed, Ana, Chair, 292.
Ahmed, Antakia, Oils, 313.
Ahmed, C. C. K., Oats, 308.
Ahmed Cherif, Cartridge box, 304.
Ahmed Chibre, Inkstand, 304.
Ahmed, E., Beans, 309; Prunes, 312.
Ahmed Effendi, Towels, 295; Carpet, 297; Silk, 298.
Ahmed, Hadji, Belt, 300; Saffron, 306.
Ahmed Mehamoudik, Silk, 297.
Ahmed Moussa, Pipes, 303.
Ahmed, O., Calico, 294; Cloth, 296; Box, 303; Lock, 305; Skins, 310.
Ahmed, Tchataldja, Barley, 307.
Ahren, J. H., Clay, 73; Pottery, 188.
Ahrens, George, Extension table, 111.
Aiacha, Madame, Linen, 295, 302.
Aiché, K., Shirting, 294, 300.
Aiken, Lambert, & Co., Toothpicks, 128; Gold pens, 130.
Ainsworth, Thomas, Linen threads, 149.
Aintab, Gov't of, Mat, 293; Curtains, 294.
Aire & Calder Glass Bottle Co., 147.
Aitchison, J., Jewelry, 151.
Aiye, P., Calculus, 266.
Akerman, R., Judge, Gr. I., 15.
Akhati, Giorki, Gum, 306; Root, 309.
Ak-Hissar, Government of, Iron, 97.
Akimoff, S., Decoration, 315.
Aksenoff, P., Toys, 318.
Alabama & Georgia Mfg. Co., Sheeting, 116.
Aladdin Oil Co., Oils, 103.
Alard, A. F., Musical staff table, 362.
Albany & Rensselaer Iron & Steel Co., Bessemer steel, etc., 57.
Albay, Provincial Board of, Fabric, 281.
Alberga & Mitchell, Wine, 172.
Albergotti, Geo., & Agostino Bros., Oil, 231.
Albert, C. F., Instruments, 332.
Albert, J., Violins, 332.
Albert, J. S., Bureau of Machinery, 10.
Albert Manufacturing Co., Alabaster, 73.
Albert Toilet Soap Co., Soaps, 187.
Albertson, J. M., Window glass, 109.
Albertson, J. W., Alternate, 9.
Albion Coal Co., Coal from Ngakauau, 63.
Albion Print Works, Prints, 119.
Albrecht & Co., Pianos, 332.
Albuquerque, C. de A., Rags, 285.
Alcacer do Sal, Viscount d', Salt, 283.
Alcarar, V., Arithmetic, 266.
Alcaraz Angulo, J., Ink, 271.
Alcobia, J. T., Tinware, 284.
Alcocer, Miss Antonia, Wax work, 267.
Alcock & Co., Billiard table, 160.
Alder Bros., Embroideries, 213.
Alder & Meyer, Trimmings, 213.
Alderson & Sons, Leather, 158.
Alegre, J., Earthenware, 256; Work box, 258.
Alen, Pedro & Manuel, Tin, 92.
Aleppo, Governor of, Waters, 292; Cotton, 298; Seed, 307.
Alessi & Bonaventura, Essences, 232.
Alessi, G., Essences, 232.
Alessio Bros., Calico, 233.
Alexander, J. P., Fire brick, 106.
Alexander, J. S., Minerals, 47; Spade, 56.
Alexander, S. T., Sugars, 251.
Alexander, W. D., Map, 251.
Alexander, W. R., Coal, 67; Coffee, 180.
Alexandre, Fans, 138.
Alexandre & Son, Organs, 345.
Alexandroff, Apparatus, 372.
Alexeieff, A., Jewelry, 318; Basket, 320.
Alexia, Miss B., Hose, 300.
Ali, Vest, 300; Receivers, 303.
Ali, A., Pots, 292.
Ali Agha Bachkin, Essences, 292.
Ali Agha, R., Service, 293; Carpet, 297; Pipes, 303; Inkstands, 304; Sorbus, 306.
Ali Agha Hadji, Grain, 308.
Ali-Ani, Carpet, 297.
Ali Ani, Sullé, Seed, 307.
Ali Baba, Seeds, 307.
Ali Bachakar, Clogs, 301.
Ali Bekir, Apples, nuts, 307.
Ali bin Chaban, Boots, 301.
Ali Bin Mehemed, Seeds, 310.
Ali bin Nazif, Boots, 301.
Ali Bongali, Hadji, Millet, 308.
Ali Bou Allia, Hadji, Wheat, 308.
Ali Effendi, Argil, 97; Salt, 291; Madder, 306; Wool, 314.
Ali Hadji, Diarbeker, Brimstone, 96.
Ali Hadji, Emery, 97; Calico, 294; Box, 303; Wheat, 308; Apricots, 312.
Ali Imi, Madame, Towels, 295.
Ali Marach, Straw brooms, 305.
Ali Mehemed, E., Essence, 292.
Ali Nazif, Boots, 301.
Ali Oglou Mehemed, Gall nuts, 306.
Ali Oglou Moussa, Morellas, 312.
Ali Oglou, Velz, Courier's bag, 304.
Ali Omer, Skin, 310.
Ali Osman, Knives, 304.
Ali Ousta, Pitchers, 293; Beans, 309.
Ali, S., Leather, 310.
Ali Zotte, Coral, 310; Wax, 312; Cocoons, 314.
Alia y Lopez, M., Serge, 274; Quilt, 275.
Alibalas, C., Mats, 280.
Alice Furnace, Ores, 50; Pig iron, etc., 57.
Alidjé, Madame, Clogs, 301; Baskets, 305.
Alien, P., Rods, 278.
Alil Fakildin, Silk, 298.
Alipio, D. J., Writing desk, 253.
Aljama Moreno, M., Pitchers, 272.
Allah, Tozula, Salt, 291.
Allard, Furniture, 194.
Allatorini, P., Carpet, 296.
Allegretti Refrigerator Co., 377.
Allen & Bro., Decorations, 109.
Allen Cement Co., Cement, 54.
Allen, G. W., Specimens, 328.
Allen, H., Judge, Gr. XX., 18; Instruments, 329.
Allen & Hanburys, Medicines, 144, 152.
Allen, H. S., History, 326.
Allen, J., Wool, 159.
Allen, J., & Son, Dentures, 136.
Allen, James T., & Co., Marble, 52; Rockers, 136.
Allen & Johnson, Crutches, etc., 136.
Allen, Lane, & Scott & J. W. Lauderbach, Book, 328.
Allen, Oliver, Petrifactions, 48.
Allen, Thos., Missouri, 13.
Allendale Company, Sheetings, 118.
Alllentown Iron Co., Pig iron, 57.
Allentown Rolling Mill Co., Ores, 49; Iron, 57.
Allentown Slate Mantel Co., 52.
Alli Maccarani Claudio, Olive oil, 231.
Allora Mine, Coal, 67.
Almaden, Mines of, Ores, 88; Plans, 92.
Almazan, P., Treatise, 266.
Almeida, A. L., Reins, 254.
Almeida, A. R. de, Cordage, 254.
Almeida da Costa, A. d', & Co., Pottery, 284.
Almeida, Germano, Boots, 288.
Almeida, J. J. d' A., Sculpture, 370.
Almeida, J. P., Linen fabrics, 285.
Almeida & Silva, Mats, 286.
Almen, von, & Kopp, Absinthe, 214.
Almgren, K. A., Silks, 226.
Almonacid & Parchappe, Minerals, 83.
Alnarp Agricultural Institute, Maps, etc., 362.

Alofoozoff & Alexandroff, Linen fabrics, 316.
Alonso, Casimiro, Iron ore, 88.
Alonzo Cortés, Manuel, Salt, 91.
Alric, A., Soap, 255.
Alsina, J., Velvets, 275.
Altemus & Co., Scrap books, 131.
Altenburg & Graue, Pianos, etc., 350.
Alteneder, T., Instruments, 329.
Althans, E. F., Judge, Group I., 15.
Althof, Bergmann, & Co., Toys, 128.
Altona, Association of, Model, 350.
Alvarez Otin Bros., Cloaks, 275.
Alvergniat Bros., Instruments, 344.
Alves, Antonio, jr., Pruning knives, 289.
Alves Cunha, J. & M., Ceramics, 284.
Alves, Pereira, & Co., Soap, 252.
Alves, S. José, Books, 366.
Amado Salazar, Enrique, Galena, 88.
Amassia, Government of, Fabrics, 298; Pouch, 303; Nuts, 307; Cotton, 314.
Amat, G., Matting, 273.
Amat, J., Music, 366.
Amazon, Department of the, Silk, 263; Coffee, 264.
Amazonas, Province of, Wreath, 254.
Amberg, Wm. A., File, 129.
Amblet & Poncet, Oil, 212.
Ambrosiussen, O. P., Model, 224.
Ambruster, John, Pressed brick work, 107.
Amelang, C. F., Books, 347.
America Hosiery Co., Underwear, 125.
American Arms Co., Shotguns, 133.
American Baptist Pub. Society, Books, 328.
American Bible Society, Bibles, 327.
American Bridge Co., Model, 334.
American Bronze Powder Manufactory, 105.
American Calcium Light Co., 115.
American Crockery Co., Table ware, etc., 108.
American District Telegraph Co., Boxes, 331.
American Gas Screen Mfg. Co., 114.
American Kaolin Co., Kaolin, 54; Brick, 107.
American Lead Pencil Co., Lead pencils, 130.
American Lever Wringer Co., 377.
American Linen Co., Printing cloths, 118.
American Linen Thread Co., Thread, 119.
American Linoleum Mfg. Co., 119.
American Machine Co., Wringers, 377.
American Mechanical Toy Co., Toys, 128.
American Missionary Ass'n, Maps, 321, 336.
American Moulded Collar Co., Collars, 125.
American News Co., Books, 328.
American Optical Co., Spectacles, 331.
American Paper Box Co., Paper boxes, 132.
American Print Works, Calicoes, 119.
American Printing House for the Blind, Books, etc., 322.
American Reflector Co., Reflectors, 114.
American Screw Co., Screws, 141.
American Shade Roller Co., Shades, 114.
American Sheet & Boiler Plate Co., Iron, 56, 115.
American Shovel Co., Shovels, 137.
American Silk Label Mfg Co., 123.
American Society for the Prevention of Cruelty to Animals, Deodands, 336.
American Stair Rod Co., Rods, 140.
American Sunday School Union, Books, 327.
American Suspender Co., Suspenders, 125.
American Tract Society, Book binding, 132; Books, 327.
American Watch Co., Watches, 330.
American Wire & Screw Nail Co., Nails, 142.
Amersfoordt, Mrs. H. M., Oratorio, 362.
Ames, A., jr., Judge, Gr. XIV., 17.
Ames Manufacturing Co., Swords, 134.
Ameye Berte, R., Chiccory, 218.
Amherst Stone Co., Sandstones, 53.
Amidon's, T. H., Son, Hats, 126.
Ammirati, D., Chairs, 233.
Amores, M., Cloth, 274.
Amoskeag Mfg. Co., Shirtings, etc., 117.
Amparson, H., Skins, 311.
Amsberg, Adolphe, Door knobs, 206.
Amsler-Laffon, J., Planimeters, 354.
Amsterdam Canal Co., Chart, 361.
Ana Bini, T., Wax, 312.
Ana, Madame, Case, 295; Lace, 299.
Ana Micó, Widow of Ferrandis, Mineral waters, 92.
Ana Sebat, Pearl work, 371.
Ana, Yania, Cotton, 298.
Anaghrosti, Dascalo Paolo, Oils, 291.
Anagnosti, Fabric, 298.
Anagnosti, P., Wool, 314.
Añana, Community of Heirs of, Salt, 270.
Anastach, K., Skin, 310.
Anastasio, Giuseppe, Cigars, 214.
Anastassi, Shirting, 298.
Anastassi, A., Cocoons, 314.
Anastassi, H., Chemise, 300.
Anastassiades, G., Soaps, 292.
Ancaster Knitting Co., Fancy goods, 189.
Anchuelo, Q., Iron, 93.
Andalgala, Sub-Commission of, Soapstone, 84; Artificial flowers, 259.
Andangala, Comm. of, Salt, 255; Harness, 260.
Anderson, A. T., Map, 342.
Anderson, David, & Son, Roofing, 149.
Anderson, J., Pins, wire cloth, 226.
Anderson, J. A., Judge, Gr. XXI., 18.
Anderson, John, Judge, Gr. XXI., 18.
Anderson, M., Implements, 329.
Anderson & Murison, Wines, 171.
Anderson, N. J., Minerals, etc., 362.
Anderson, T., Clay, 73.
Anderson, W. W., Models, 378.
Anderssen, J., Judge, Gr. V., 16.
Andés & Son, Varnish, 207.
Andin Chako, N., Brandy, 313.
Andon, C., Morocco, 310; Cotton, 314.
Andon, Mitchré, Wooden casks, 305.
Andonafake, A., Silk, 297.
Andonaki, Wax, 312.
Andonaki, K., Amethyst, 302.
Andover Iron Co., Iron, 55.
Andrade, A. R. L., Bituminous coal, 82.
Andrade, Antonio P. S. de G., Wool, 286.
Andrade, J., Baskets, 254.
Andrade, J. F. de, Colored clay, 82.
Andradi, A. A. de, Instruments, 289.
Andre, J., Musical publications, 347.
André, L. A. F., Coals, 184.
Andrews, A. H., & Co., Furniture, 112; Globes, 321.
Andrews Brothers, Pig iron, 56.
Andrews, C. B., Ferns, 251.
Andrews, Henry, & Co., Coatings, 149.
Andrews, Hitchcock, & Co., Ores, 50; Iron, 58, 59.
Andrews & Hitchcock, Coal, 51.
Andria, T., Skins, 310.
Andrion, Heirs of, Silk, 275.
Andris, Lambert, & Co., Glass, 215.
Androscoggin Mills, Sheeting, 116.
Andújar, Potters of, Pots, 272.
Angas, G. H., Photographs, 167.
Angas, J. H., Wool, 168.
Angeli, Candido R., Straw, 234.
Angelini, Prof. Rodolfo, Penmanship, 365.
Angelucci, G., Shoes, 234.
Anglada & Co., Carbonate of zinc, 87.
Anglcur Steel Manfg. Co., Steel, 77.
Anglim, J., Annals, 326.
Anglo Australian Guano Co., Guano, 183.
Angot & Dubreuil, Instruments, 345.
Angstrom, C. A., Judge, Gr. XXI., 18.
Anguel, I., Cocoons, 314.
Anguel, Ichkodra, Leaves, 304.
Anhaia & Angelo, Cotton goods, 253.
Anikeyeff, J., Apparatus, 373.
Aniline Mfg. Co., Chemicals, 201.
Anjos & Co., Cotton prints, 285.
Anjos, Cunha, Ferreira, & Co., Prints, 285.
Ankarsrum Works, Iron, 79.
Annawan Manufactory, Printing cloths, 118.
Anon, Flowers, 174.
Anselmi & Marassi, Oils, 232.

Ansley, Fred. W., Jewelry, 129.
Ansonia Brass & Copper Co., Kettles, 140; Clocks, 330.
Antaki, G., Belt, 300.
Antakia Caimakan, A., Silk, 297.
Anthoni, G., Axles, 199.
Anthony, F., Brandies, 224.
Anthony, G. G., Kansas, 12.
Anthracite Fuel Co., Coal, 51.
Antigua, Provincial Board of, Baskets, 280.
Antimony Mining Co., Ore, 94.
Antoine's, L., Son, Inks, 192.
Antoli, Miss M., Cotton, 294.
Anton, E., Books, 347.
Antonelli, Cav. A., Essences, 232.
Antonio, Martins, Henriques, & Co., Ore, 94.
Antonoff, Harness, 320.
Antonoff, P., Plan, 373.
Antony-Bovy, J. E., Watch works, 355.
Anzotegui, E. S. de, Embroidery, 258.
Aparicio, J., Cloak, 275.
Aplin, D., Ores, 67.
Apollinaré's Co., Mineral waters, 75.
Apollo Stearine Candle Co., Candles, 160.
Appert, Lengele, & Co., Glass, 193.
Applegate, R. O., Table, 377.
Appleton Co., Cotton goods, 117.
Appleton, D., & Co., Binding, 132; Books, 327.
Arabe Mehemed, M., Wool, 314.
Aragoneses, Corp. of, Stone, 90.
Arai, H., Furniture, 245; Canes, 246; Vase, 248.
Araiyo, José Antonio, Basket work, 290.
Aranda & Co., Covers, 279.
Aranjo, J. A. Vieyra de, Oligistic iron, 82.
Arañó, E., Yarns, 274.
Ararat Flour Mill Co., Wheat, 163.
Ararat, Shire Council of, Photographs, 162.
Araujo, J. G., Guitars, etc., 369.
Arbatsky, N., Wagon, 383.
Arbo, P. N., Judge, Gr. XXVII., 19.
Arboledas, Martin, Sulphate of lead, 88.
Archæological Society of Ohio, Map, 328.
Archer & Pancoast Manfg. Co., Gasoliers, 114.
Archer, W. H. D., Wheat, 183.
Archibald, T. D., Coal, 71.
Architecture, Society for the Promotion of, Works, 360.
Ardavissa, Madame, Thread baskets, 304.
Ardizzone, Francesco, Sulphur, 81.
Aren & Blumenheim, Embroideries, 204.
Aren, Manuel J. da S., Boots, 288.
Arens, A., Books, 359.
Ares, R., Clogs, 276.
Argandar, A., Arithmetic, 266.
Argentine Manufactory, Porcelain, 223.
Argentine Republic, Minister of the Interior of, Memoirs, 368.
Argentine Rural Society, Annals, 368.
Arguello, David, Ores, 84.
Arguello, E., Mats, 258.
Arguin, E., Webs, 281.
Arias, Hilarion, Lime, 84.
Aristide, Count, Mineral waters, 81.
Aristoff, A., Scarfs, 318.
Arles, Dufour, Raw silk, 195.
Arlington Mills, Alpacas, 121.
Armada, J. A. de, Hats, etc., 253.
Armand, E., & Sons, Wool, 317.
Armbrister, J. A., Canes, 173.
Armbruster, J. H., Weights, 140.
Armbruster, S., Coach, 211; Harness, etc., 383.
Armesto Vinuesa, F., Peat, 270.
Armington, J. H., Gas engineering, 335.
Armitage, Leather, 156.
Armitage Bros., Woods, etc., 176.
Arms, Bell, & Co., Nuts, 141.
Arms Manufacturing Co., Leather goods, 129.
Armstrong, A., Wools, 164.
Armstrong, F., Garters, 128.
Armstrong, J. B., Seeds, 156.
Arnaus, M., Elixir, 278.
Arnberg, C., Judge, Gr. IX., 16.
Arnold, E., Letters, 200.
Arnold, Geo., & Co., Wools, 164.
Arnold, L. B., Judge, Gr. IV., 16.
Arnot, S., Leather, 183.
Arntzenius, Jannink, & Co., Yarn, 220.
Arny, W. F. M., New Mexico, 13.
Arola, A., & Domenech, F., Chemicals, 270.
Arouca & Co., Cotton fabrics, 253.
Arpadji Mahmond Agha, Wax, 312.
Arriago, J., Book, 266.
Arrivillaga, Augustin, Galena, 87.
Arroniz, M., Biography, 266.
Arrosto, G., Medicines, etc., 235.
Arroyo, G., Mantas, 275.
Arroyo, Juan, Iron, 92.
Arsenjeff, F., Embroidery, 318.
Arteaga, J., Studies, 266.
Arteaga & Jáuregui, Phosphorus, 271.
Arteche, A. M., Carbonate of iron, 270.
Arthur & Dougherty, Stone, 65.
Arthur, F., Cabinet work, 147.
Artillery Corps, Gun, 278.
Artin Effendi, Madder, 306.
Artisans' School, Drawings, 360.
Artist's Union, Statutes, 359.
Artiz Antonio, M., Phosphorus, 271.
Arzalaya, R. de, Basket, 273.
Asakura, M., Toys, 246.
Asano, T., Vases, 245.
Asch, Myer, Assistant Secretary, 10.
Aschenbach & Miller, Perfumery, etc., 106.
Asco, G., Vest, 300.
Aseptin Amykos Stock Co., Aseptin, 225.
Asevedo, D. J. Santós, Diamonds, 82.
Ash & Lacy, Iron sheets, 62.
Asher & Adams, Album, 327.
Ashland Furnace, Ores, 50.
Ashley, C., Phaeton, 383.
Ashtabula Co. Historical Soc'y, Relics, 328.
Ashworth, Edmund, & Sons, Yarns, 149.
Asphaltum Co. of Maestu, Asphaltum, 89.
Assam, H. M., Pipes, 223.
Assetto di Graziani Bros., Cottons, etc., 233.
Assi Agha, Plate, 293.
Assibi, Madame, Lace, 299; Belt, 302.
Association for the Encouragement of Manfs., Books, 369.
Association for Women's Work, Rugs, 246.
Assungin, Colony of, Saponaceous clay, 82.
Astadji, N., Cotton, 314.
Astadji Oglou, N., Belt, 300.
Astardji Narssès, A., Cotton, 294.
Astbury & Maddock, Earthenware, 107.
Astolfi, C., Soap, 271.
Astor, Socks, 300.
Astudillo, J. M., Boots and shoes, 261.
Astwood, Mrs., Woods, 174.
Asylum for Girls, Reports, 353.
Asylum for the Poor, Cigars, 268.
Asylum of Mendicity, Handkerchief, 277.
Atanach, D., Skins, 310.
Atanach, Miss, Silk, 298; Slippers, 301.
Ateuf Dédé, Marmalade, 312.
Athayde, M. E. de S., Mica, 82.
Atidgé, Madame, Cotton, 294; Hose, 300.
Atkinson, E., Judge, Gr. VIII., 16.
Atkinson, Henry, Shirts, 125.
Atkinson, J. & E., Perfumery, 145.
Atkinson, W., Teazles, 164.
Atlantic and Pacific Telegraph Co., Apparatus, 331.
Atlihuayan Hacienda, Sugar, 268.
Atterbury & Co., Glassware, 108; Lamps, 114.
Atwell, Misses, Shells, 173.
Atwood, D., U. S. Commissioner, 9.
Atwood, H. W., Cologne, 106.
Atwood, J. M., Map, 327.
Atwood & Richmond, Silk thread, 123.
Aub, Hackenburg, & Co., Silk, 122.
Aubé, H., Napkin ring, 198.
Aubert Bros., Watchsprings, 355.
Aubry, J., Faience, 193.
Aubry, T., Stoves, 194.
Auckland Patent Steam Rope Co., Rope, 155.
Audemars, L., Chronometers, 355.

Audibert, Monin, & Co., Silks, 196.
Audibran, Elixir, 192.
Audsley & Bowes, Books, 338.
Audy, Mrs., Imitation pearls, 197.
Aue, F. v. d., & Kollmann, Gloves, 209.
Augener, George, & Co., Music books, 338.
Augusta, Maria da P., Toothpicks, 288.
Augustine & Stuart, Roofing, 378.
Auld, P., Wines, 168.
Auld, W., Cue, 250.
Auret, W. H., Vegetable drugs, 169.
Aurineta, Cav. M. A., Disinfection, 365.
Aurora Factory, Cottons, 265.
Ausonia Brass & Copper Co., Brass, 59.
Austagan, Fruit, 307
Austin, S. L., Sugars, 251.
Australasia, National Bank of, Notes, 341.
Australia, Commercial Bank of, Photos., 341.
Australian Museum, Birds, animals, 157, 340.
Austrian Glass Foundry Ass'n, Bottles, 207.
Automatic Swing Co., Swings, 336.
Autunes, Jeronimo J., Elastic braids, 287.
Auvray, P. E., Odontine, 171.
Auvray, P. E., Wax, 172.
Avadiz, Miss, Lace, 299; Purse, 304.
Avadjan, Wool, 314.
Avadjan, Savas, Aloe wood, 306.
Avanza, Miss T., Cover, 302.
Avaujo, Antonio J. B. de, Silk, 287.
Avedis Papazogla, T., Pitchers, 293.
Avellaneda, Nicolas, Marble, 84.
Avellaneda, Nicomeden, Embroidery, 258.
Avellar & Miranda, Toothpicks, 288.
Avesta Garpenbergs Stock Co., Iron ore, 78; Iron, 79.
Avilés y Merino, F., Syrup, 271.
Avram, Cocoons, 314.
Awo, P., Vases, 245.
Awoumi, G., Jewel cases, 247.
Awoumi, G., Utensils, 245, 247.
Ax, H., Cotton and mixed goods, 203.
Axtell, S. B., Judge, Group I., 15.
Ayacucho, Dept. of, Clothing, 263; Coffee, 264.
Ayala, Antonio, Steatite, 87.
Ayamonte, Corp. of, Lime, 90.
Ayaza Oglon Ahmed, Cotton, 294.
Aydin, Government of, Ores, 96; Juice, 292; Wheat, 308.
Ayer, J. C., & Co., Medicines, 134.
Ayliff, Mrs., Skeletonized flowers, 169.
Ayliff, Reuben, Photographs, 170.
Ayliffe, I. H., Quartz, 166.
Ayvadjik, Government of, Salt, 291.
Azar Ogli, Linen, 295.
Azevedo, J. G., Books, 366.
Azevedo Miguelinia, Julia de J., Silk, 287.
Azit Anelé, Manganese, 97.
Azmoos Weaving Mills, Figured goods, 212.
Azzimonte, L., Drinking cup, 256.

B.

Baanante, Juan, Cantharides powder, 270.
Baare, Fred., Silk, 123.
Baba Chika, Boots, 301.
Babani Azeré, Ear rings, 302.
Babey, Ch., Tulles, 197.
Babi, S., Canes, 303.
Babin, Victor, & Lepooshinsky, Well, 99.
Bablot, A. y, Books, 266.
Baccilieri, L., Gloves, 234.
Bach, Bracelets, 318.
Bach, I. G., Lithographs, 347.
Bacharach, M., Urinal, 378.
Bachiller, Guillermo, Galena, 87.
Bachman, S., Shawls, 121.
Bachmann, F., Table, 353.
Back, Publications, 347.
Backman, J. F., Safe, 225.
Bacon, B. H., Clock, 330.
Bacon, C. N., Felts, 119.
Bacon, George W., Transfers, 127.
Bacon & Karr, Pianos, 333.
Bacquet & Co., Laces, 197.
Bader, F. W., View, 211; Design, 352.
Badger, B. F., Razor strops, 138.
Badia, J., Yarns, 274.
Badiole, H., Medicines, 199.
Badish National Aiding Ass'n, Views, 350.
Badollet, J. M., & Co., Chronometers, 355.
Badon, B., Embroidery, 281.
Baedecker, J., Books, 347.
Baedeker, Carl, Books, 347.
Baedeker, G. D., Books, 347.
Baeder, Adamson, & Co., Whips, 127; Emery, 139.
Bæhni Bros., Hair springs, 355.
Baerlocher-Custer, Embroidery, 213.
Baertsoen, A. & Buysse, A., Cottons, 216.
Bagdad, Government of, Cup, 292; Mats, 293; Textiles, 295, 297; Garments, etc., 300; Baskets, 305; Tomahawks, 305; Reins, 305; Morocco, 311.
Bagdanoff, W. T., Cushions, etc., 317.
Bagge, G. B., Maps, etc., 362, 363.
Baggott, S. & W., Rockingham ware, 108.
Bagley, John J., Michigan, 13.
Bagot, E. M., Meat, 167.
Bagwell, E. R., Alternate, 9.
Bahamas, Cent. Com. of, Fans, 173.
Bahia, Antonio José R., Hats, 288.
Bahia Blanca, Justice of, Salt, 255.
Bahia, Custodio J. R., Hats, 288.
Bahia & Genro, Cotton fabrics, 285.
Bahia, House of Correction of, Furniture, 252.
Bahmann Bros., Instruments, 329.
Bahse & Haendel, School furniture, 202.
Bailey, A., Tulles, 197.
Bailey & Co., Silverware, 113; Jewelry, 126.
Bailey, E., Paintings, 251.
Bailey, Edward H., Linings, 122.
Bailey, F. M., Ferns, 179; Flowers, 180.
Bailey, G., Coal, 71.
Bailey, H. H., Photographs, 182.
Bailey, J. T., & Co., Bags, 115; Rope, 142.
Bailey, Leonard, & Co., Planes, 138.
Bailey, W. H., Sugars, 251.
Bailey, W. & J. A., Teapots, 147; Glass, 148.
Bailey & Wilson, Wagon, 380.
Bailey Wringing Machine Co., 138, 377.
Bain, G., Finance, 11.
Bain, J., Judge, Gr. XV., 17.
Baird, H. C., & Co., Books, 327.
Baird, S. F., Judge, Gr. V., 16.
Baker, Arnold, & Co., Fixtures, 114.
Baker, C., & Sons, Furniture, 153.
Baker & Co., Jewelry, 204; Wheels, 379.
Baker, E. D., New Hampshire, 13.
Baker, G. O., Judge, Gr. VIII., 16.
Baker, H. J., & Bro., Drugs, etc., 102.
Baker, Isabella, Wines, 168.
Baker, J., Safety steps, 160.
Baker, John C., & Co., Cod liver oil, 103.
Baker Mine, Mica in plates, 71.
Baker, W., Lime, 72, 73; Awls, 153.
Bakewell, Pears, & Co., Glassware, 108.
Baktiar, Bez, Clay, 97.
Balbé, Juan C., Pen drawing, 262.
Baldirez, S., Slates, 90.
Baldwin, A. H., Magnetite, 71.
Baldwin, E. P. & W., Sheet iron plates, 62.
Baldwin, J., & Co., Saddlery hardware, 382.
Balhannah Mining Co., Ores, 166.
Balisa, Corp. of, Granite, 90.
Ballantyne, Mrs., Lime and limestone, 72.
Ballarat Woolen Co., Shawls, etc., 161.
Ballard & Galloway, Limestone, 52.
Ballard Vale Mills, Flannels, 121.
Ballentine, G. H., Cottage, 378.
Ballou, Geo. C., & Son, Cotton goods, 117.
Ballue, A., Publications, 344.
Bally & Schmitter, Elastic webs, 214.
Balny, A., Book, 344.
Balthazar, Miss, Chemises, 300.
Baltic Woolen Mills, Woolen goods, 120.
Balto Oglon Youssouf, Morocco, 311.
Balugera, A., Embroidery, 258.

Balvidares, V., Horse-hair whip, 259.
Balza Bros., Cigars, 268.
Bamble Nickel Mines, Ores, 80.
Bambula, J., Bronzes, 208, 210.
Banante, Juan, Argil, 91.
Bancroft, E. P., Kansas, 12.
Bancroft, J. S., & Co., Hats, 126.
Bandeira, A. S. B. M., Salt, 283.
Bandoux & Co., Glass, 215.
Bandoux, E., & Jonet, Glass, 215.
Banks, E. H., Cereals, 156.
Bannerman, R., Clay, 73.
Bano, A., Wine, 313.
Banouch Agha, Wheat, 307.
Banouch, Son, Cocoons, 314.
Banquells & Rascon, Mineral water, 91.
Bapterosses, F., Buttons, 198; Materials, 343.
Baptista, J. G., Linen yarns, 285; Spoons, 290.
Baras-Navaux, Woolen stuff, 216.
Barau & Colas, Jars, 194.
Barbacena, Viscount of, Coal, 82.
Barbarulo, A., Cloths, 233.
Barbarulo Bros., Cloths, 233.
Barber Match Co., Matches, 106.
Barbiere, J., Tennessee, 14.
Barbizet, Son, Faience, 193.
Barboda, Oligistic iron, 82.
Barbour Flax Spinning Co., Thread, 119.
Barbour, J. S., Finance, 10.
Barboza, Antonio José, Twines, 289.
Barboza & Costa, Desk, 284.
Barboza Marinho, V., Oil cloths, 286.
Barcena, M. J. R., Treatise, 266.
Barcena, Mariano, Rocks, 86; Livingstonite, 88; Works, 266; Maps, 267, 269.
Barclay & Morrison, Ores, 72.
Bardet, F., Wire cloths, 253.
Bardon & Ritton, Silks, 196.
Bardou, J. P., Paper, 198.
Bardou & Sons, Instruments, 345.
Barella, J., Ceramics, 272.
Barelli, F., & Son, Hats, 257.
Bargioni, F., Ropes, 235.
Bari, Chamber of Commerce of, Oil, 232.
Barinaga de Oteiza, A., Tapestry, 277.
Barker, G. R., Flue, 375.
Barker, H., & Bro., Granite pedestal, 52.
Barker, H., & Sons, Granite, 53.
Barker Mills, Sheetings, 116.
Barker, Moore, & Mein, White lead, 104.
Barkly, Sir H., Bitter barks, 169.
Barlow & Jones, Covers, 148.
Barlow, W. H., Judge, Gr. XX., 18.
Barnard, B., Furniture, 147; Baskets, 153.
Barnard, Bishop, & Barnards, Stoves, 147.
Barnard, F. A. P., Judge, Gr. XXV., 19.
Barnard, G. L., Oil, 166; Wines, 168.
Barnard Manfg. Co., Printing cloths, 118.
Barnard, S. B., Photographs, 170.
Barnes, A. S., & Co., Books, 321.
Barnes, Lewis, Iron ore, 49.
Barnes, W. E., Kansas, 12.
Barnet, J., Photographs, 157.
Barney, E. H., Skates, 138.
Barnhurst & Robinson, Stretchers, 128.
Barnum, Richardson, & Co., Drawings, 334.
Baroncelli, Baldassare, Sodium, 231.
Barra, Prof. Luigi, Book, 365.
Barran, Leoncio, Lime, 90.
Barraya, M. S., Counterpane, 285.
Barreda, C., Alcohol, 268.
Barreiros, Francisco I., Boots and shoes, 288.
Barrenechea, Paulino, Coat of arms, 263.
Barreto, Antonio Tavares, Limestone, 94.
Barrett, Arnold, & Kimball, Paper, 133.
Barrett & Co., Cordials, 157.
Barrett, Jos. W., Designs, 126.
Barriga, Antonio F., Quartz, 94.
Barrios, D., Wines, 264.
Barrios, J. M., Wines, 264.
Barrios, J. P., Brandy, 264.
Barrios, S., Wines, 264.
Barros, A. A., Canes, 254.
Barros, A. A., & Gaveao, B. A., Whips, 254.
Barros, Diogo A. de, Cotton goods, 253.
Barros, J. de A., Reins, 254.
Barros, José, Bricks, 85.
Barros, Lauro, Wool, 262.
Barrows, H. F., & Co., Jewelry, 126.
Barrows, Savery, & Co., Hollow ware, 376.
Barry, Arnold, & Co., Wheat, 170; Wool, 171.
Barry & Herdon, Aloes, 170.
Barry & Lane, Range, 375.
Barry & Nephews, Aloes, 170; Brandy, 171.
Barry, P., Revolutionary arms, 382.
Barstow Stove Co., Stoves, 375.
Bartels & Kroyemann, Chemicals, 201.
Barth, G. M., Frames, 378.
Barth & Wagner, Mechanical toys, 205.
Bartholomew, John, Maps, 338.
Bartlett, Butman, & Packer, Trusses, 136.
Bartlett, C. L., Ornaments, 328.
Bartlett, J. R., R. I., 14; Catalogue, 326.
Bartlett, J., & Sons, Grates, 375.
Bartlett, J. W., Lamps, 114.
Bartolini dott Cesare, Fossil flour, 81.
Barton, C., Ores, 47.
Barton, G. C., Nebraska, 13.
Barton, W. E., Bells, 142.
Barwon Woolen Mill Co., Tweeds, 161.
Bas y Verdera, J. B., Canvas, 273.
Bascuñan, Francisco, Minerals, 83.
Bashkoff, Basil, Ores, 98.
Basle Orphan Asylum, Annual reports, 357.
Basle Stadt, Canton of, Plans, 355.
Basquin, Hector, & Schweizer, Embroidery, 213.
Bass River Steam Saw Mills, Timber, 162.
Basra, Government of, Mats, 293.
Bassardji Maktés, Cotton, 294.
Bassett, Geo. A., Laundry gloss, 103.
Bassolini, V., Colors, 232.
Bastos, A. P., Hydrometer, 369.
Bastos, J. X., Canes, 254.
Batangas, Provincial Board of, Balsam, 280; Handkerchief, 281; Garments, 282.
Batchelder & Co., Photographs, 162.
Batenburg & Co., Lamps, 220.
Bates, J. C., Ventilators, 378.
Bates M'fg Co., Shirtings, 119; Woolens, 121.
Bates, Walker, & Co., Teaware, 146.
Batka, Franz, Glassware, 207.
Batley, J., Cradle, 114.
Batlle y Hernandez, J. P., Blanket, 280; Embroidery, 281.
Batllo Bros., Thread, etc., 273.
Battig, A., Engineer, 351.
Baucells & Co., Moleskins, 274.
Bauch, C., Teeth, 319.
Baudenbacher, C., Toys, 205.
Baudet, Pianos, 345.
Baudissin, Countess P., Artificial flowers, 209.
Baudon, Wine of antimony, 192.
Baudry, T., Works, 344.
Bauer, A., Cloth, 208.
Bauer, A., jr., Musical instruments, 349.
Bauer & Pokorny, Pipes, 210.
Bauer's Type Foundry, Type, 347.
Baugniet, T., & Co., Blood, 218.
Baumann, A., Vater, & Son, Carvings, 358.
Baumann, Senior, & Co., Silks, 212.
Baumann & Streuli, Silks, 212.
Baumgardner, Woodward, & Co., Yarns, 142.
Baumgarten, J., Egg box, 253.
Bausch & Lomb Optical Co., Lenses, 330.
Bavarian Association, Central Committee of the, for Nursing and Aiding Sick and Wounded Soldiers, Model, 350.
Bavarian Museum of Arts, Books, 349.
Baxter, B., Dolomite, 72.
Bay of Fundy Red Granite Co., Granite, 72.
Bay State Iron Co., Iron boiler plates, etc., 57.
Bayao, F. A. P., Plan, 369.
Bayer, F., & Co., Chemicals, 201.
Bayer, J., Musical instruments, 349.
Bayer, R., Designs, 351.
Bayet Bros., Fine weapons, 218.
Baylis, H., Samples of wool, 337.

Baynes Sound Mining Co., Coal, 71.
Bayview Quarry Co., Sandstones, etc., 72.
Bazan, Abel, Bricks, 85.
Bazar Publishing Co., Books, 347.
Bazzantie, F., Sculpture, 235.
Beach, E. R., Match safe, 376.
Beale, Horace A., Iron, 56.
Beall, C. N., West Virginia, 14.
Beam, A. F., Oil tanks, 376.
Bean & Jardine, Vases, 241.
Bean, Lewis U., Drugs, 102.
Bear & Ford, Wine, 164.
Beard & Bro., Burglar-proof safe, 111.
Beard, J., Ornaments, 328.
Beasten, C., Delaware, 12.
Beatty, G. D., Slides, 330.
Beatty Hosiery Mills, Hosiery, 125.
Beatty, L. J., Penmanship, 341.
Beatty & Thorne, Ornamental printing, 126.
Beaudet, H. J., Cradle, 114; Scroll work, 143.
Beaumarchey, L., Maps, 345.
Beaver Falls Cutlery Co., Cutlery, 138.
Beccari, Gnalberta Alaide, Newspaper, 365.
Becerra & Gomez, Dress, 277.
Bechmann, A. F., Bronze ware, 210.
Beck, C., Cards, 132.
Beck, C. H., Books, 347.
Beck, Dr., Dressings, 205.
Beck, E., Shirt fronts, 203.
Beck, Edward, Map, 356.
Beck, Fr., & Co., Wall papers, 133.
Beck, R. & J., Microscopes, 339.
Beckel, A., & Son, Crutches, 135.
Beckensteimer, Books, 344.
Becker, C., Jewelry, 204.
Becker, F., Jewelry, 204.
Becker, G., Regulators, 349.
Becker, I., Quartz, 166.
Beckett & Cervi, Bookbinding, 132.
Beckh, G. A., Chemicals, 202.
Beckhaus, J., Coach, 380.
Beckley, F. W., Kapa, 250.
Beckwith, A., Judge, Gr. II., 15.
Beckwith, N. M., U. S. Commissioner, 9.
Becoulet & Co., Papers, 199.
Bedichimer, Isaac, Jewels, 126.
Bedini, Giuseppe, & Sons, Strings, 365.
Bedoya, Segundo, Ore, 83.
Bedré, A., Vinegar, 313.
Bedros, A., Tobacco, 309.
Bee Culture, Society for, Honey, 214.
Been, C. A., Liquors, 224.
Beest, J. E. van Heemskerch van, Judge, Gr. XXVII., 19.
Begasse, C., Felt, 217.
Begerem, R., Lace, 217.
Beha, J. Bapt., & Sons, Clocks, 349.
Behlen, C., Phaeton, 381.
Behmer, A., Judge, Gr. IX., 16.
Beidler, G. A., Burners, 114.
Beihl, F., Bronze ware, 210.
Beirollas, Manuel A., Horse shoes, 95.
Beja, Sup. of Live Stock of, Photos., 370.
Beker, Hadji, Salt, 291.
Bekir Agha, Pipes, 303; Inkstands, 304; Morocco, 311.
Bekir Bey, Root, 309.
Bekir Effendi, Hadji, Barley and millet, 308.
Bekir, H., Cotton, 313.
Bel Air Manufacturing Co., Cassimeres, 120.
Bel Air Plantation, Sugar, 175.
Belanger, Vinet, & Dupart, Axles, 190.
Belding Bros. & Co., Thread, etc., 122.
Belfast Mills, Dress goods, 119, 120.
Belfont Furnace, Ores, 50.
Belfont Iron Works, Iron, 58.
Belgian Gov't. Educational Dept., Furniture, 359.
Beliaieff, G., Albums, 320.
Beliajeff, G., Japanned ware, 316.
Beliajeff, T., Mats, 316.
Belilla Medina, Corporation of, Ochre, 271.
Belin, Mrs., Books, 344.
Belknap, J., Judge, Gr. XX., 18.
Bell, A. G., Telegraph, 332.
Bell, August, Crinoline braids, 213.
Bell, C. R., Horse shoes, 191.
Bell, D., Tile, 73; Drain tiles, 188.
Bell, H., Oil, 158; Bone dust, 159.
Bell, I. L., Judge, Group I., 15.
Bell, Robert, Indian curiosities, 342.
Bell, R. W., & Co., Soaps, 106.
Bell, W., & Co., Cabinet organs, 342.
Bell, W. & D., Tobacco pipes, 188.
Bella Vista, Sub-commission of, Stone, 85; Salt, 255; Thread, 256; Yarns, 257; Seed, 259.
Bellefonte Furnace, Ores, 49; Iron, 59.
Belles, James, Iron, 89, 92.
Bellest, E., & Co., Cloth, 195.
Belleville, Col., Report, 344.
Bellezza, N. A., Jewelry, 234.
Belliveau Albertite Oil Co., Oil, 71.
Belson, R. W., Warm air furnace, 376.
Beltran & Lopez, Sandals, 276.
Beltran y Lopez, J., Bags, twine, 273.
Belts' Roofing Co., Roofing, 378.
Beltzikewicz, H., Cooking apparatus, 316.
Belvidere Woolen Manufacturing Co., Flannels, 121.
Bemis & Call Hardware and Tool Co., 138.
Ben, Michaelangiolo, Maps, 365.
Ben Saude, Jacob, Nails, 289.
Benas, J. P., Instruments, 199, 200.
Benavides, Mariano, Magnesian earth, 91.
Bencker, I. U., Gloves, 209.
Bencker, M., & Son, Gloves, 208.
Bender & Phillips, Wax, 130.
Bendigo Pottery Co., Worm for still, 160.
Bendissa, Government of, Mineral water, 97.
Bene, Creighton, & Co., Feathers, 127.
Benedict & Berrnham Manfg. Co., Brass, 59.
Beneficial Association, Models, 361.
Benelische, F., Blank books, 259.
Benezet & Co., Springs, 379.
Benfield, Paper, 266.
Bengtsson, B., Chemicals, 225.
Benham Organ Co., Organs, 333.
Benites, D., Cottons, 265.
Benito, Santiago de, Lock, 279.
Benjamin, E. B., Chemicals, 102; Glass, 329.
Benjamin, H., & Co., Marble, 72.
Benkofski, A., Cutlery, 319.
Bennert & Bivort, Window glass, 215.
Bennett, E., Shirts, 125.
Bennett, H., Ornaments, 328.
Bennett, J. M., Judge, Gr. VI., 16.
Bennett, Jas., Newspaper files, 188.
Bennett, T., Cutlery, 230.
Bennett, T. K., Preserved meats, 163.
Bennett, Wm., Coal, 71.
Benningfield & Son, Elephant tusks, 170.
Bens, A., Mills, 361.
Bensusan, Antonio J., Salt, 270.
Bentley, Jeff. O., Stamps, 126; Board, 375.
Bento, C. C., Ores, 47.
Bento, Dr., Lime, 82.
Benton, Lewis F., Ore, 48.
Bentzen, B. M., Books, 364.
Benucci & Latti, Vases, 233.
Beram, A., Cane, 303.
Berat, Government of, Silk, 297; Maize, 308; Cocoons, 314.
Berdie, M., Medicinal water, 259.
Berea Stone Co., Stone, 53.
Berg, Axel, Iron ores, 78.
Berg, Chr. Lud., Mineral waters, 78.
Berg, F. J., Wigs, 226.
Berg, Gottfried, Porphyry, zinc, etc., 78; Gunpowder, 225.
Berg, J. T., Yarns, 226.
Berg, S., Albumen, 209.
Bergaré, Dr., Peanut oil, 255.
Bergen, C. von, & Co., Wood carvings, 358.
Bergen Common School Board, Ores 364.
Bergen Gas Works, Ammonia, 229.
Bergen's Commercial Association, Oil, 229.
Bergen's Glass Works, Floaters, 229.

Berger, C. F., Absinthe, 214.
Berggren, A. N., Cork, 226; Method, 362.
Bergh, Van den, & Co., Gin, 219.
Berghammer, F. R., Artificial teeth, 210.
Bergmann & Co., Zephyr wool, 203.
Bergmann, F., Bronzes and gems, 209.
Bergner, Theo., Drawing boards, 130.
Bergsbro Stock Co., Fabrics, 226.
Bergslag Iron Works, Iron, 79.
Bergström, P. N., Furs, 226.
Berguillo, C., Balsam, 271.
Berkeley Co., Cambrics, 116.
Berkey & Gay Furniture Co., 111.
Berkley & Taylor, Oil, 179.
Berlie, Edouard, Springs, 355; Tools, 358.
Berlin, J. W., Looking glasses, 202.
Bermegillo, Pio, Silver, 86.
Bermejillo, P., Cottons, 265.
Bermuda, Government of, Stalagmite, 66; Tables, 174.
Bernabei, A., Syringes, 235.
Bernard, J., & Co., Papers, 198.
Bernard, J. T., Alternate, 9.
Bernardo, Daupias, & Co., Woolen fabrics, 286.
Bernardo, L., Teeth, 319.
Bernardo, M., Quartz, 166.
Bernardy, Mrs. L., Geography, 266.
Bernbal, M., Hampers, 277.
Berne, Dept. of Public Works, Plans, 356.
Bernelot, Moens, J. C., Herbarium, 222.
Berney, A., Tea kettle, etc., 376.
Bernhard, S., Perfume, 214.
Bernhardi, J., Chemicals, 201.
Bernstein Bros., H. & B., Amber, 318.
Bérr, Eugene, Gloves, 197.
Berry, J. B., Pianos, 333.
Berry, J. S., Oil, 158; Bone dust, 159.
Berthon, Shoes, 253.
Berthoud & Co., Blacking, 192.
Bertini, E., Crockery, 233.
Bertram & Co., Gold, 85.
Bertram, J. T., Arrowroot, 174.
Bertrand, Boulla, Imitation tapestries, 195.
Bertrand, Casimiro, Iron, 88.
Besancet-Blanc, Ruby jewels, 355.
Beslier, A., Pharmaceutical preparations, 192.
Bessbrook Granite Works, Granites, 61.
Besson, F., & Co., Musical instruments, 339.
Bessoni, Viscount de, Marbles, 95.
Bessonoff Bros., Bolts, 319.
Best, J., Wine, 164.
Bethell, J. P., Apparatus, 136.
Bethlehem Iron Co., Iron, 57; Drawings, 334.
Betou, J. P. de, Rifle, 221.
Betou, P. J., Instrument, 361.
Bett, T., Oil, 315.
Bettington, J. B., Wool, 159.
Bettle, E., New Jersey, 13.
Bettman & Kupfer, Toys, 205.
Bettonville, C., Woolens, 216.
Beunon, Piano, 345.
Beust, F., Books, 353.
Beutel, F., Wicker work, 208; Shoes, 209.
Bevan, Eduardo A., Ores, 83.
Bevan & Sons, Cord, 155.
Bevan, Thomas, jr., Rope, 155.
Bevin Bros. Manufacturing Co., Bells, 140.
Bevis, H., Banner, 153.
Bewley, J. H., Delaware, 12.
Beyer, E., Inks, 202.
Beyron, F., Shell, 181.
Beyroot, Government of, Cotton, 294; Fabrics, 298; Trimmings, 302.
Beysens & Beckers, Religious articles, 194.
Bezaz Effendi, Silk, 298.
Bianchi & Mellado, Laces, 277.
Bianchi & Molinari, Floor, 233.
Bibianno, Antonio Alves, Broadcloth, 286.
Bibliographic Institute, Leipsic, Maps, 348.
Bickel, August, & Son, Canes, 128.
Bickford, A. M., & Sons, Bitters, 168.
Bickford, Dana, Knitted articles, 125.
Bickford, Smith, & Co., Safety fuses, 145.
Bicknell, A. J., & Co., Books, 326.
Bicqué & Dupressoir, Feathers, 198.
Biddell Bros., Lemons, 158.
Biddle, C. M., Finance, 11.
Bidencope, J., Hats, etc., 182.
Bie, C., Arithmometer, 224.
Bierrenback & Bros., Hats, etc., 253.
Bierrengard, W., Harness, 254.
Bigdé, Government of, Salt, 291; Hemp, 295; Gum, 306.
Bigler, W., Finance, 11.
Biglow Carpet Co., Carpets, 122.
Bihn & Co., Lampblack, etc., 104.
Biké, Madame, Carpet, 297.
Bikkers & Son, Extinguisher, 361.
Bilbao Iron Ore Co., Iron ore, 89.
Bilger, C., Harmonica, 349.
Billar, S., Oil, 255.
Billerlict, Juan, Varnished woods, 262.
Billeter, C. G., Threads, 212.
Billings, Clapp, & Co., Chemicals, etc , 102.
Billings & Spencer Co., Arms, 133; Tools, 137
Bin Cachi Mehemed, Mineral water, 97.
Binder Bros., Carriages, 200.
Binder, W., Jewelry, 204.
Bindschedler & Busch, Artificial alizarine, 212.
Bingera Mine, Coal, 67.
Biolley Bros. & Co., Woolen stuff, 217.
Biolley, F., & Son, Woolen stuff, 217.
Bion & Tschumper, Embroideries, 213.
Birch, F., Millstones, 80.
Birch, John S., Watch key, 128.
Birch Kirkor, Inkstand, 304.
Birchall, J. D., & Co., Woolen goods, 149.
Bird, Geo., Cheese, 163.
Bird, J. T., New Jersey, 13.
Birdsall & Son, Binding, 152.
Birgé & Berg, Flowers, 127.
Birindelli, Carlo, Water, 81.
Birkenbine, H. P. M., Drawings, 335.
Birkey, J. Q., & Co., Gas heaters, 376.
Birkor, Tissues, 298.
Birmingham & Lacy, Bricks, 160.
Birney, J., U. S. Commissioner, 9.
Birney, M. L., Samples of wool, 337.
Bishop, A., Magnetite, 71.
Bishop, D. E., Models, 335.
Bishop, Henry, Building sandstones, 72, 73.
Bishop, J., Crucibles, 135.
Bishop & Northrup, Robes, 121, 124.
Bisier, B., Clay, 272.
Bisresborn Mineral Spring Co., Waters, 75.
Bissell & Co., Grates, 374.
Bissinger, C., Sons, Jewelry, 204.
Bithincourt, J., Lasts, 253.
Bitterlin, P., jr., Glassware, 194.
Bitterlin-Schmidt, Precious stones, 355.
Bitterlin, Son, Glassware, 194.
Bivar, J. d'A. C. de, Salt, 283.
Bivar, Manuel d'A. C. de, Lace, 288.
Bivort Raymond, Henri, Kettles, 77.
Bizer Bros., Jewelry, 204.
Björk, J. O., Iron, 226.
Björneborgs Iron & Steel Works, Iron, 78, 79.
Blabon, G. W., & Co., Upholstery, 119.
Blach, J., Essay, 373.
Black Band Iron Co., Ores, 47.
Black Forest Clock Manufacturers, 349.
Black, L., & Co., Glasses, 330.
Black, Messrs., Sugar, 180.
Black River Stone Co., Stone, 53.
Black, W. B., Wood, 156.
Blackfellows' Creek Mine, Coal, 67.
Blackie & Charles, Hydrant, 115.
Blacklock, W., & Co., Wool shirts, 189.
Blackstone Mfg. Co., Shirtings, 116.
Blackwood, J., & Co., Inks, 145; Wax, 152.
Blackwood, R., Amethyst, 71.
Blain, C. R., Maize, 158.
Blair's, H. C., Sons, Toilet articles, 106; Food, 135.
Blaisdell, G. P., Axles, 382.
Blake Bros., Hardware, 141; Trucks, 143.
Blake, C. H. & F. D., Alpacas, 122.
Blake & Johnson, Pins, 129.

Blake, W. P., Alternate, 9.
Blakemore & Sherman, Washstand, 377.
Blanche Furnace, Ores, 48; Iron, 57.
Blanchet, A. P., Plan, 345.
Blanchet Bros. & Kleber, Paper, 198.
Blanck, Carlos Frederico, Ore, 94.
Blanck, G., Rule, 329.
Blanck, W., & Son, Limbs, 135.
Blanco, B., Saddlebag, 274.
Blanco, E., Trimmings, 276.
Blanco, Prudencio, Calamine, 87.
Bland & Wright, Coal, 67.
Blandin y Carrese, Manuel, Iron ores, 88.
Blanes Bros., Paper, 277.
Blankenhorn, A., Reviews, 349.
Blanquer, Ronda, Marble, 89.
Blauvelt, J. C., Coal, 51.
Blaylock & Co., Hats, 126.
Blazincic & Sons, J., Haberdashery, 210.
Bleasdale, J. I., Precious stones, 65.
Blelock, G. H., Judge, Gr. XXI., 18.
Bless & Drake, Irons, 377.
Blessing, C. A., Tubs, 377.
Bleyberg es Montzen Stock Co., Ores, 77.
Blin & Bloch, Cloth, 195.
Blind Asylum, Lausanne, Regulations, 354.
Blind Institute, Amsterdam, Articles, 360.
Bliss, J., & Co., Chronometers, 330.
Bliss, William, & Son, Woolens, 149.
Bloch, E., & Sons, Boots, 209; Cloths, 211.
Blodget, L., Charts, 326.
Bloedner's, J. C., Son, Chemicals, 201.
Blombacka Stock Co., Matches, 225.
Bloodgood, Miss A. De Etta, Flowers, 127.
Bloodgood, Mrs. I. S., Afghans, 121.
Bloom Furnace, Iron ores, 48; Pig iron, 58.
Blösch, Eduard, Reports, 357.
Blot, Eugene, Pipes, 198.
Blot, Paul, China, 193; Glassware, 194.
Blumenau, Colony of, Cotton fabrics, 253.
Blumer & Wild, Hosiery, 213.
Blunck, C., Pumps, 230.
Bluthner, J., Piano, etc., 350.
Boada, G., & Travessa, Acids, 270.
Boada, Jeronimo Mataró, Artificial stone, 90.
Bob, L., Clocks, 349.
Bocanegra, S., Marbles, 86.
Boch Kirkor, Spoons, 293; Stirrups, 305; Flute, 371.
Bochner, T., Judge, Gr. IX., 16.
Bock, H., Photographs, 162.
Bodart, E., Sheepskins, 218.
Boddy, E., Flour, 164.
Bodington, R., Support, 165.
Bodou Agha, Wine, 313.
Bodwell Granite Co., Granite samples, 52.
Boeck, W., Jewelry, 204.
Boeck, W., & Danielssen, D. C., Books, 364.
Boeddinghaus, F., & Son, Cloth, 203.
Boeddinghaus, W., & Co., Cloth, 203.
Boehm, P., Polished stones, 204.
Boer, F. N., Model, 361.
Boericke & Tafel, Medical preparations, 134.
Boeza, Simon, Wines, 268.
Bofors Stock Co., Iron ore, 78.
Bogart, John, Engineering exhibit, 336.
Boghend, Luzzena, Benzine, 304.
Bogle, A., & Co., Shoe machines, 160.
Bohannan, Wilson, Locks, 141.
Bohland & Fuchs, Instruments, 351.
Bohm, A., Bronze ware, 210.
Bohm, L., Bronze ware, 210.
Bohol, Provincial Board of, Bags, 280.
Boim & Co., Pottery, 284.
Boissiere, E. V. de, Silk, 122.
Boiven y Senty, Adolfo, Asphaltum, 89.
Boivin & Co., Tools, 190.
Böker, H., & Co., Cutlery, 206.
Bolad, N., Cotton fabrics, 293; Silk, 298.
Boland, F., Mirrors, 113.
Bolari & Yellow Earth Co., Earth, 81.
Bolen & Byrne, Waters, 55.
Bolesse, Diarbekir, Seeds, 307.
Bolinders, J. & C. G., Stove, 226.
Bolle, L. A., Son, Absinthe, 214.
Bollenbacher, G. W., Table, 377.
Bolzani & Fussl, Chains, 209.
Bolzani, Jean, Son, Chains, 197.
Bomches, F., Designs, 351.
Bomsdorf, Oscar von, Maps, 347.
Bon Pasteur, College work, 342.
Bon Regina, Laces, 234.
Bonacina, C., Varnishes, etc., 232.
Bonafede, L., Tiles, 315.
Bonaplata, Eduardo, Galena, 88.
Bondier, Ulbrich, & Co., Pipes, paper, 198.
Bonehill Bros., Iron, 77.
Bonei, Casuccinio, Olive oil, 231.
Bonel & Sons, Cloths, 274.
Bonfantini, G. A., Album, 358.
Bonhomme, Uncle & Nephew, Doors, 195.
Bonilla, R., Cloth, 275.
Bonino, E. P., Zinc goods, 235.
Boniotti, P., Document, 360.
Bonnet, Charles, & Co., Types, 358.
Bonnet & Co., Silk, 196.
Bontems, B., Birds, 198, 345.
Bonwill, W. G. A., Instruments, 136.
Bonzano, H., Louisiana, 12.
Book Trade, Amsterdam, Books, 360.
Boolak, Mechanical Inst. of, Tools, 237.
Boon, B., Miniature field artillery, 134.
Boonin, J., Silk, 317.
Booroff, S., Wood, 320.
Boorum & Pease, Books, 132.
Boos, F., & Bro., Furs, 129.
Boosey & Co., Music, 338; Instruments, 339.
Boot Manufactory, Luxemburg, Boots, 240.
Booth, G., Wrench, 190.
Booth, J., & Son, Tools, 137.
Booth, W., Painting on glass, 188.
Boothby, C. W., Drawings, 321.
Boott Cotton Mills, Cotton goods, 117.
Boquet, J., & Co., Velvet, 195.
Borbridge, S. & H., Trunks, 189; Harness, 191.
Borddal, J., Tables, etc., 253.
Borden, William W., Fossils, 49.
Border City Mills, Printing cloths, 118.
Bordewick & Co., Cod-liver oil, 229.
Boreham, J. H., Spices, 180.
Borel & Courvoisier, Chronometers, 355.
Borel-Petitpierre, Ls., Tools, 358.
Borelli, Luigi, late Tommaso, Acids, 231.
Borg, O. E., Apparatus, 362.
Borges, J. A., Earthenware, 284.
Borges, M. da Cunha, Gross mats, 284.
Borgo Sesia, Woolen Manufactory of, 233.
Borissoff, S., & Sons, Printed calico, 316.
Borm, L., Dress suit, 125.
Bornet, P., Leather letters, 200.
Borodin, M., Silk, wool, 317.
Boronas Soler, A., Cloth, 274.
Borrás, E., Shawls, 273.
Borregan del Blanco, Mineral water, 91.
Borsig, A., Iron, 75.
Borst & Roggenkamp, Stones, 77.
Bortfeld, C., Hats, 204.
Borthen, J., Cod-liver oil, 229.
Borthwick, Alex., Varnishes, 160.
Bortolotti, P., Perfumery, 232.
Bosisto, J., Chemical preparations, 160.
Bosler, Marcus, Limestone, 52; Building stones, 54.
Bossard, H., Slide rest, 137.
Bossel, H., Hats, 253.
Bosset, Jewelry, 197.
Bossi, E., Gloves, 234.
Bossi, Gaetano L., Locks, 214.
Boston Comfort Corset Co., Corset, 125.
Boston Hydraulic Motor Co., Motors, 336.
Boston Manufacturing Co., Cotton goods, 117.
Boston Musical Instrument Manufactory, 334.
Boston & Sandwich Glass Co., Glassware, 108.
Botanic Gardens, Melbourne, Director of, Woolen cloth, paper, 161; Carpological collection, 162; Jam, 163.
Botasheff, B., Samovars, 316.

Botelberge, Gustave, & Co., Ultramarine, 215.
Boteler, A. R., U. S. Commissioner, 9.
Bothamley, A. T., Photographs, 156.
Bothwell, W., Harness, 161.
Botten, W., Wine, 164.
Bottenheim, D. & S., Yarns, 220.
Botterling & Schultze, Cotton goods, 203.
Botti, A., Olive oil, 232.
Botti, P., Gun, 235.
Boucher-Gravet, Clocks, 344.
Boucheron, Jewelry, 197.
Bouchinet, Dress goods, 196.
Boucneau, L., Marble work, 216.
Boude & Son, Sulphur, 192.
Boudon, L., Raw silk, 195.
Boudvillain, J., Flags, 200.
Bougali, Hadju Ali, Henna leaves, 306.
Bougard, A., Le Brun, H., & Co., Glass, 215.
Bougard, A. M., Crystals, 216.
Boughton, J. W., Screens, 115.
Bouhon & Co., Bronze, 194.
Bouhon, François, Wooden shoes, 217.
Boulanger, L., Violin, 332.
Boulanger, Mrs., Books, 344.
Boulenger, senior, Pavement, 193.
Boulinikon Floor Cloth Manf'g Co., 149.
Boullet, L. & I., Hats, 257.
Boulton, L., Medicinal plants, 178.
Bouquet, Miss, Tea cups, 181.
Bourcier, Ch., Imitation jewelry, 197.
Bourd, Government of, Carpet, 296; Stockings, 300; Morocco, 311.
Bourgeois & Co., Machine oils, 192.
Bourgeois, Martin, jr., Paintings, 199.
Bourgeois, N., Picture, 259.
Bourgeois, senior, Colors, 193, 198.
Bourquin, C. F., Hosiery, 213.
Bourson, Miguel, Iron ore, 89.
Boussu, Familleureux, & Blanc Misseron Glass Works Joint Stock Co., Crystals, 216.
Boutenjeun, Laces, 197.
Bouton, H. & E., Coffee, 178.
Bouvier, A., Skeletons, 344.
Bouvy, J. J. B. J., Glassware, 220.
Bowden, J. H., Drawings, 335.
Bowden, J. H., Kentucky, 12.
Bowditch, Earnest W., Plans, 336.
Bowen, Mrs. S. B., Montana, 13.
Bowen, T., Casting, 135.
Bower, Henry, Acids, etc., 102.
Bowers, James, & Co., Corsets, 125.
Bowman, C. A., & Bro., Brushes, 142.
Bowman, Charles, Stencil plates, 145.
Bowman, E. & A., Wool, 159.
Bowman, J. S., Crayons, 160; Engravings, 161.
Bowman, O. O., & Co., Terra cotta, 106.
Boyachipolani, M., Cover, 302.
Boyd, A., Tobacco, 173.
Boyd & Chase, Oilstone, 55, 139.
Boyd, D., Flue radiator, 376.
Boyd, Miss E., Ferns, 250.
Boyd, W. S., Florida, 12.
Boyden, A., Judge, Gr. VII., 16.
Boyé, M. H., & Lewis, George T., Oil, 103.
Boynton, C. W., & Co., Tile, etc., 107.
Boys' B'd'g School, Coal, 250; Woods, 251.
Boza, J., Wines, 264.
Bozzalla, A., & Bro., Woolen goods, 233.
Bozzalla, G., & Son, Woolen goods, 233.
Bracher, T. W., Ventilators, 378.
Bradbury, Agnew, & Co., Books, 338.
Bradford, A., Fastener, 378.
Bradford, H., Maryland quartz, 54.
Bradford, J., Judge, Gr. IV., 16.
Bradley & Gilbert, Blank books, 132.
Bradley & Hubbard Manufacturing Co., Chandeliers, 114; Bronzes, 128.
Bradshaw, J. D., Ship models, 191.
Bradshaw, T. H., Ship models, 191.
Brady, E. W., Window shades, 109.
Brady, Edward, Collars, 126; Models, 139.
Braff, P., & Co., Paper stock, 217.
Braga, A. J. F., Feather articles, 254.
Braga, A. P. da S., Armorial bearings, 289.
Braga, Dir. of Public Works of, Stone, 94.
Braga, Fernandes, & Co., Hats, etc., 253.
Braga, Manuel J. V., Silk trimmings, 287.
Brahim Agha, H., Bellows, 293.
Brainard, Armstrong, & Co., Silks, 122.
Brambilla, Fortunato, Shirts, 263.
Bramford Lock Works, Locks, 141.
Branca, A. D., Salt, 283.
Brandao, José Marçal, Sewing silks, 286.
Brandeis, L., & Co., Bronze powders, 104.
Brandstetler, F., Books, 347; Harness, 383.
Brandt, C., Furs, 230.
Brandt, J. de, Linen, 216.
Brann & Reich, Looking glasses, 202.
Brant, J. Ferreira d'A., Insects, 366.
Brantzeg, P., Pianos, 364.
Braquenie Bros., Carpets, 195; Tapestry, 217.
Brasche, C., Wine, 164.
Brasher, W. M., & Co., Oil cloths, 119.
Brashnin Bros., Silk, 317.
Brass, John, & Son, Harness, 172.
Brasseur, R., Syrup, 192.
Bratti, Seiatilli, & Co., Music, 365.
Braunek, E., Gloves, 209.
Bravais, Rooul, & Co., Pharmacies, 192.
Bravo, A., Handkerchief, 281.
Bravo, F., Tapestry, 280.
Bravo, Simon, Carvings, 262.
Bray, E. L., Fixtures, 140.
Brazil, Commission General of, Straw, 253; Knives, etc., 254; Piano, 367.
Brazil Ind. Cotton Mill Co., Cottons, 253.
Brearley Bros., Leather, 163.
Brecht, C. J. P., Wines, 159.
Breeden & Ncike, Shears, 139.
Bréguet, Machines, 345.
Breguet & Co., Chronometers, 344.
Brehmer, E. F. A., Apparatus, 363.
Breidenbach & Baumann, Publications, 347.
Breitkopf & Hartel, Catalogues, etc., 347.
Brémond, B. A., Musical boxes, 355.
Brend 'amour & Co., Albums, 347.
Bresca & Co., Merinoes, 274.
Brese & Starke, Quartz, 166.
Bressen-Agnés & Co., Silks, 196.
Breting Bros., Chronometers, 355.
Brewer & Tileston, Books, 327.
Brewer, W. H., Judge, Gr. VI., 16.
Brewster Bros. & Co., Corsets, 125.
Brewster & Co., Wagons, 380.
Brewster, J. B., & Co., Landau, 380.
Breysacher, A. L., Arkansas, 11.
Brian, H. T., Judge, Gr. XIII., 17.
Brianchon, J., Faience, 193.
Briar Hill Iron & Coal Co., Pig iron, etc., 57.
Briard, Nuts, cotton, 181.
Brice, D. A., Cotton, 173.
Brick Enameling Co., Bricks, 107.
Bridge, Andrew, Pails, 191.
Bridge Mill Cotton Manf'g Co., Cottons, 117.
Bridma, M., Books, 368.
Bridore, Government of, Lignite, 97.
Briens, Jewelry, 197.
Briere, J., Nipples, 346.
Brigg, J. F., & Co., Drills, coatings, 149.
Brigg, M., & Son, Safes, 109.
Briggen, Charles, Tables, 316.
Briggs, J., Piano stools, 111.
Briggs, J. F., New Hampshire, 13.
Briggs, Robert, Ventilating fan, 335.
Brigham, W. T., Books, 250; Photos., 251.
Bright Bros. & Co., Ingots, 65.
Bright, H. C. R., Copper ores, 169.
Brigola, Gaetano, Books, 365.
Brill, J. G., & Co., Car, 382.
Brinkerhoff, Turner, & Co., Canvas, 117.
Brinsmead, John, & Sons, Pianos, 339.
Brinton, Joseph H., Stone, 52.
Brionde, St. Etienne, Ribbons, 196.
Brisbane Tin Co., Model, 179.
Brisbane Tin Mining Co., Ores, 67.
Brisley, W., Hook, 190.
Bristow, G. F., Judge, Gr. XXV., 19.

Brites, Augusto Pereira, Stone, 94.
Brites, Rose e M. G. do S., Lace, 287.
British & Foreign Ass'n, Blind maps, 338.
British & Tasmanian Charcoal Iron Co., 68.
Brito Aranha, Pedro W. de, Books, 369.
Brito, J., Works, 266.
Britó & Sierra, Ore, 89.
Brittain, R. J., Instruments, 331.
Britton, B. F., Judge, Gr. X., 17.
Broad Brook Co., Cassimeres, 120.
Broad, E., Axes, 190.
Broadhead, G. C., Judge, Gr. I., 15.
Brocard, P. J., Mirrors, 193.
Brocard, P. T., Glass, 194.
Broch, I., Water filter, 376.
Brochi, J., Cans, 272.
Brochocki, C. D., & Co., Javelle water, 193.
Brock, J., Wool, 183.
Brockhaus, F. A., Books, 347.
Brocklemann, Biscuit, 180.
Brockley & Co., Piano, 342.
Brodin, jr., Aerostatic articles, 198.
Brodribb, W. A., Wool, 159.
Brodure, M., Wooden work, 216.
Brohme & Co., Chemicals, 201.
Bromley, John, & Sons, Carpets, 122.
Bróndum, A., Liquor, 224.
Bronfort Bros., Wooden boxes, 216.
Bronze Foundry, Shot, 278.
Brook, J., & Bros., Cotton, 148.
Brooke, E. & G., Ores, 50; Iron, 58; Nails, 140.
Brooke, Edward, & Sons, 145.
Brookes & Crookes, Knives, 152.
Brooklyn White Lead Co., White lead, 104.
Brooks, D., Cables, 331.
Brooks & Dupuy, Cotton, 181.
Brooks, Henry, & Co., Perfumery, 145; Stoppers, 153.
Brooks, Mrs. G., Doilies, 171.
Brooks, W. B., & Son,, Coal, 52.
Brookside Hosiery Mills, Shirts, 125.
Brosset, Heckel, & Co., Satins, 196.
Brot, L., Mirrors, 194.
Broussa, Government of, Opium, 304.
Brousse, Government of, Silk, 297.
Brousson, J., & Son, Nails, 206.
Brower Bros., Inkstands, 130.
Brown, A., Gypsum, 73.
Brown, A. H., Sugar, 180.
Brown & Bliss, Dining-room furniture, 110.
Brown, Bonnett, & Co., Bar iron, 56.
Brown Bros., Bookbinding, 189.
Brown & Claggett, Dresses, 189.
Brown & Co., Ores, 47; Blooms, 56.
Brown, D. S., & Co., Shirtings, 119.
Brown, E. F., Stone, 53.
Brown, E. P., Implements, 136.
Brown, Emma, Hats, 126.
Brown, Frederick, Jamaica ginger, 102.
Brown, G. W., Table, 250.
Brown, H. J., Wine, 164.
Brown, J., Pyrolusite, 71.
Brown, J. B., & Co., Netting, 148.
Brown, J. T., Frames, 188.
Brown, John, & Co., Armor plates, 62.
Brown, John S., & Sons, Sheetings, yarns, 149.
Brown, L. L., Paper Co., Paper, 131.
Brown, L. P., Idaho, 12.
Brown & Owen, Iron work, 143.
Brown, R. H., Coal, 71.
Brown, R. T., Judge, Gr. IV., 16.
Brown, Robert B., & Co., Castor oil, 103.
Brown, S. C., New Jersey, 13.
Brown, S. N., & Co., Sulky, 379.
Brown, T., & Co., Wool, 159.
Brown, Westhead, T. C. Moore, & Co., Tiles, 146.
Browne & Buskewell, Harp, 334.
Browne, H. Justin, Pianos, 340.
Browne, J., Chart, 341.
Browne, T., Sandstone, 64.
Browne, W. J., Wool, 168.
Brownfield, Wm., & Son, Earthenware, 146.
Brownhills Pottery Co., Terra cotta, 146.
Browning & Brothers, Chemicals, 102.
Browning, George, Minerals, 223.
Bruce, J., Judge, Gr. XXIII., 18.
Brucher & Bauler, Apparatus, 372.
Brückner, Lampe, & Co., Chemicals, 201.
Bruffel, K., Cotton, 294.
Brugada, L. de, & Boucherville, E. de, Ramie, 178.
Brugsch Bey, Porcelain, 236.
Brugsch, E., Judge, Gr. XX., 18.
Bruhn, A., Wines, 164.
Brum, C. de, Linen duck, 285.
Bruna, E., Ashes, 255.
Brunell, J. E., Reed, 226; Penholders, 362.
Brunet, Jos., Marble monument, 72.
Brunet, P., Bronze, 194.
Brunfant, Jules de, Glassware, 207.
Brunius, A. W., Books, 362.
Brunn, Dr., Cast, 351.
Brunner, A., Bed covers, 212.
Brunner, Ad. & Fr., Sketches, 356.
Brunner, Mond, & Co., Soda, 144.
Brunning, O., Pianos, 345.
Brunnschweiler & Son, Inks, 212.
Brunnschweiler, Traugott, Caseum, 212.
Brunswick Bros., Billiard table, 109.
Brunswick, J. M., & Balke Co., Billiard tables, 112.
Brunt, Bloor, Martin, & Co., China, 108.
Brusa, G., Album, 234.
Brusewitz, Fr., Glassware, 225.
Brussels Gymnastic Ass'n, Statutes, 360.
Bruton, C. I., Photographs, 170.
Bruyneel, Lace, 217.
Bruzewitz, F., Glass, 226.
Bruzzesi, G., Shoes, 234.
Bryan, J. C., Rods, 331.
Bryant & May, Safety matches, 145.
Bryzgaloff, Jugs, 316.
Buasso, L., Boots and shoes, 257.
Bubb & Co., Woolen cloths, 149.
Buchanan, J., Fish hooks, 152.
Buchanan Mineral Co., Cement, 72; Paint, 187.
Buchsbaum, Max, Ornaments, 208.
Buchtel College, Ornaments, 328.
Buck Bros., Chisels, 137.
Buck, C., Tools, 137.
Buck, T. S., & Co., Rubber type forms, 130.
Buckeye Furnace Co., Iron ores, 48; Iron, 58.
Buckhora Furnace, Ores, 48; Iron, 58.
Buckingham Mining Co., Lime, 74.
Buckley, E., Wheat, 163.
Buckley, J. E. & G. F., Shawls, 150.
Buckley, Joseph, & Co., Shawls, 150.
Buckman, Ira, Locks, 142; Annunciators, 331.
Budan, J., Gloves, 208.
Buen Deseo Mining Society, Ores, 89.
Buena Vista Furnace, Ores, 49; Iron, 59.
Bueno, R., Earthenware, 272.
Buenos Ayres Benevolent Soc'y, Mat, 256.
Buenos Ayres Prov. Com'n, Fabrics, 257; Herbs, spurs, 259.
Buenos Ayres Water Works Com'n, Shells, 84.
Bueso Fabregad, V., Tiles, 272.
Bueso Herrando, J., Sandals, 276.
Buffalo Decorating Co., Leaves, 128.
Buffalo Furnace, Ores, 49; Iron, 59.
Buffeti & Maya, Hats, 257.
Buftam, M., Counterpane, 295.
Bühler, Emile, Hair regenerator, 212.
Building Direction, Canton Aargau, Plans, 357.
Buison, J., Mats, 280.
Buison, N., Tintarron, 280.
Bujalance, Corporation of, Mantas, 275; Jacket, 276; Gimlets, 279.
Bulacan, Provincial Board of, Knives, 282.
Bulhoes, Plans, 367.
Bulimba Tin Smelting Co., Tin, 67.
Bull & West, Cuprous pyrites, 88.
Bullivant, T., Window, 148.
Bullock, Chas., China ware, 108.
Bullock & Crenshaw, Drugs, chemicals, 102.
Bullock, G. & J. M., Warp, 118; Doeskins, 120.

Bullot, C., Stockings, 196; Millinery, 196, 197.
Bundner Reformatory, Reports, 357.
Burbach Works, Iron, etc., 75.
Burbank, J. A., U. S. Commissioner, 9.
Burchardt, C. A., Jewelry, 204.
Burdett Organ Co., Organs, 332.
Bureau of Education, Map, 263.
Burger, H., Velocipedes, 361.
Burgess, Andrew, Rifles, 133.
Bürgin Bros., Bronze, 76; Nails, 214.
Burgos, J., Table cloth, 256.
Búrgos, Provincial Commission of, Pottery, 272; Towels, 273; Woolens, 274.
Buringer Bros., Iron, 143.
Burkhardt, C. P., Oregon, 13.
Burkitt, F., Mississippi, 13.
Burleigh, J. B., Relics, 328.
Burleigh, W. A., Dakota, 12.
Burley, S. W., Books, 326.
Burlington Mfg. Co., Tiling, 53, 107.
Burlington Woolen Co., Doeskins, etc., 120.
Burlock, Saml. D., & Co., Bookbinding, 132; Bibles, 327.
Burnand, J., & Co., Cutlery, 153.
Burnay, Constant, Blankets, 286.
Burnay, V. de J. B. B., Oils, 283.
Burnett, J., & Co., Extracts, etc., 106.
Burnett, W. H. & R., Furs, 129.
Burnham, C., & Co., Stoves, 374.
Burns, B., Ohio, 13.
Burns, R., & Co., Masonry, 106.
Burpee, M., Drawing, 342.
Burton, B., Rifles, etc., 134.
Burton Bros., Views, 156.
Burton, J. P., Coal, 51; Iron, 57.
Burwell, W., & Bro., Mountings, 378.
Bury, J. A., Canes, 181.
Buscarlet, Widow, & Malo, Gloves, 197.
Busch Bros., Cotton and mixed goods, 203.
Buschor, Chas., Furniture, 111.
Busse, G., & Co., Cement, 61.
Bussey, G. G., & Co., Trunks, 151; Guns, 152.
Bussy, C. de, Judge, Gr. H., 15.
Bustamente, Abdon, Blanket, 257.
Bustos, M., Embroidery, 258.
Butchart, J. H., Tin ore, 64.
Butler, G. P., & Sons, Books, 326.
Butterick, E., & Co., Patterns, 123.
Büttner, Ed., & Co., Fancy papers, 205.
Buxeda Bros., Fabrics, 274.
Buxton, Geo., Lime and limestone, 72.
Buys, L., Car, 218.
Buzby, Albert G., Water motor, 336.
Buzzi, G., Furniture, 233.
Byron, W., Paper, 131.

C.

Caba Oglou Mehemed, Calico, 294.
Caballero, E., Graphite, 85.
Caballi, C., Embroidery, 258.
Cabello, G., Wines, 264.
Cabeza, A., Hammers, 270.
Cabezas Sarabia, J., Cloak, 275.
Cable, Bayard, & Co., Clothes rack, 188; Razor strop, 190; Halter clasps, 191.
Cabo, J. de Villa, Strings, 269.
Cabo Mondego Mining Industrial Co., Glass work, 284.
Cabot Manufacturing Co., Cotton goods, 117.
Cabra, Corporation of, Marbles, 90.
Cabra del Santo Cristo, Whetstones, 91.
Cabral, A. do V., Violin, 369.
Cabral, Frederico A. de V. P., Coal, 94.
Cabral, J. T., Tidies, 258.
Cabral y Melo, José Maria, Crystal rock, 83.
Cabrera, M., Horse medicine, 255.
Caddell, A., Tin ore, 64.
Cadelinio, P., Head-dress, 281.
Cadi Kazi Agha, Sumac berries, 306.
Cadir, S., Sheets, 295.
Cadiz, José, Gypsum ornaments, 261.
Cadiz, José Gabriel, Artificial marble, 85.
Cadwallader, Fitz Gibbon, & Co., Wagon, 380.
Caesar, L., Polished stones, 204.
Caetani, Vicente, Marble, 84.
Cafak, A., Morocco, 311.
Cafak Mahmoud, Boots, 301.
Cafak Mehemeda, Shoes, 301.
Cafejedaki, J., Wines, 313.
Caffrey, C. S., Sulky, 380.
Cagliani, L., Velvets, 234.
Caguires, Frank, Antique vase, 52.
Cahy, Baron of, Bridles, etc., 254.
Caille, Miss Fanny, Faience, 193.
Caine, J. T., Utah, 14.
Cainzo, Antonio, Tobacco, 268.
Calacao, A., Fabric, 281.
Calamari, P., Soaps, 232.
Calatorao, Corp. of, Black marble, 90.
Calcined Bone Manufacturing Co., Bone, 315.
Caldara, S., Cloths, 233.
Calderara & Bankmann, Perfumery, 207.
Calderon, Pedro, Vegetable clay, 85.
Calderon Revuelta, F., Mineral water, 92.
Caldwell, J. E., & Co., Silverware, 113; Jewelry, 127.
Caldwell & Mather, Ranges, 375.
Caldwell & Tod, Building stone, 54.
Caledonia Free Stone Co., Sandstone, 72.
Caledonia New Amalgamated Co., Quartz, 166.
Calender, Vaupel, & Co., Pianos, 332.
Calheta, Maria Pereira da, Woolen caps, 288.
California Distilling Co., Oils, etc., 106.
Caligny, A. de, Report, 345.
Calise, T., Hats, 234.
Calix, J., Oil, 315.
Calle Bernardo, M. de la, Salt, 270.
Callewaert Bros., Books, 359.
Calman, Government of, Skin, 311.
Calman, L., Literature, 344.
Calmann, C., Book, 326.
Calvados Lace Manufacturers, Lace, 197.
Calver, G. W. H., Stoves, 377.
Calvert, F. C., & Co., Carbolic soaps, 144.
Camacho, J., Music, 267.
Camara, Antonio da, Nails, 289.
Camara, F. T., Gold dust, 82.
Camará, J. E. P., Hats, 253.
Camara, J. Ewbank da, Stones, 82.
Camara, M. da, Table cloth, 285; Cotton lace, 288.
Camarines Norte, Prov. Com. of, Ores, 93.
Cambria Furnace, Iron ores, 48; Iron, 58.
Cambria Iron Co., Drawings, 335.
Cambria Iron & Steel Co., Ores, 47; Iron, 55.
Camden Woolen Mills, Dress goods, 121.
Cameron, A., Alternate, 9.
Cameron, Hon. D., Wool, 183.
Cameron, Wm., & Son, Embroidering, 125.
Cameta, City Council of, Hats, 253.
Caminero, José, Ores, 88.
Cammell, Chas., & Co., Iron armor plates, 62.
Camp, J. H., Photographs, 336.
Campaspero Board of Public Works, Calcareous stones, 90.
Campbell Brick & Tile Co., Stoneware, 146.
Campbell, C. J., Coal, 71.
Campbell, D. H., Wool, 159.
Campbell, F., New York, 13.
Campbell & Fowler, Springs, 191.
Campbell, G., Shutters, 190.
Campbell, Hall, & Co., Paper, 131.
Campbell, Hugh, & Son, Granite, 61.
Campbell, J., Books, 342.
Campbell, J. L., Commissioner and Sec'y, 9.
Campbell, O. R., Painting, 161.
Campbell, S. S., Samples of wool, 337.
Campbell, Saml., Extracts, etc., 101.
Campbell & Turton, Sugars, 251.
Campbell, Wm., Window curtains, 109.
Campeche, State Gov. of, Salts, 265; Woods, 267; Caoutchouc, 268; Cotton, 269.
Campo Grande, Woolen fabrics, 286.
Campo de Mata, Mrs. J., Cushion, 266.

Campolini, M., Earthenware, 284; Statuettes, 370.
Campora Brothers, Olive oil, 261; Wines, 262.
Campos, A., Music, 366.
Campos, Fernande, Liquor, 268.
Campos, Francisco, Galena, 87.
Campos, J., Pampa girdle, 257.
Campos, Mello, & Co., Kerseymeres, 286.
Canada Cotton Mfg. Co., Domestics, 188.
Canada, Educational Dept. of, 341.
Canada Paper Co., Envelopes, 189.
Canada Plumbago Co., Plumbago, 73.
Canada Truss Factory, Limbs, etc., 190.
Canadian Titanic Co., Iron, 74.
Canales, Juan Bautista, Acid, 270.
Canas, Eduardo, Olive oil, 268.
Candela, M., Cloth, 274.
Candiani & Biffi, Acids, 231.
Cane, G., Umbrella tools, 235.
Canea, Gov't of, Salt, 291; Laudanum, 304.
Canedo, Señor, Cigars, 268.
Canfield, Frederic A., Drawings, 335.
Canopy Frame Co., Canopy frames, 115.
Canson & Montgolfier, Paper, 199.
Cantalucia, Corp. of, Marbles, 90.
Canterbury Flax Association, Cordage, 155.
Canterbury Museum, Plans, 155.
Cantlie, Ewan, & Co., Flannels, 189.
Canto, A. A., Linen yarns, 285.
Cantó, Tomás, & Sons, Cloth, 274.
Capdevila & Co., Paper, 277.
Cape Copper Mining Co., Ores, 169.
Cape Rouge Pottery Co., Crockery ware, 188.
Capponi, Conti Bros., Olive oil, 231.
Capra, J., Jewelry, 197.
Carballino, Corp. of, Medicinal waters, 92.
Carbon Iron Co., Iron ore, 49; Pig iron, 57.
Carbonneaux, F., Jewelry, 197.
Cardalda, I., Glycerine, 255.
Cardona Baldrich, J., Corsets, 276.
Cardoso, A. Nunes, Lime, 82.
Cardoso & Gonsalves, Soap, 252.
Cardozo, J. P., jr., Gold leaf, 95; Shot, 289.
Cardozo, Manuel Joaquin, Webs, 289.
Cardwell, R., Trepang, 167.
Carenzo, Nicholas, Kaolin, 84.
Carette Dobbels, D., Rod, 359.
Carey, J. M., U. S. Commissioner, 9.
Carey, J. W., Box, 180.
Carling, T., Wheat, 167.
Carlisle, Henry, & Son, Shell combs, 128.
Carlsen, P. O., Ivory, etc., 182.
Carmant, A., Jewelry, 198.
Carmara, D. H. G da, Linen fabrics, 285.
Carmen, T. D., Oil, 255.
Carmichael, G. L. & J. B., Wines, 159.
Carmoy, C., Nails, 199.
Carné & Moreno, Soaps, 271.
Carnegie Bros. & Co., Iron, 56.
Carneiro, A. P., Counterpane, 285.
Carneiro, Francisco dos Santos, Tissue, 288.
Carneiro, S. A., Hats, 257.
Carney, Bernard L., Hats, 126.
Carnic Ali, Agha, Grapes, 307.
Carol & Co., Soap, 271.
Carominas, Salas, & Co., Fabrics, 275.
Caron, L., Cement, 193.
Carpenter, Charles, Geological rocks, 48.
Carpenter & Raymond, Monuments, 52.
Carpi, V., jr., Sandals, 276.
Carr, Crawley, & Devlin, Hardware, 141.
Carr, Isaac, & Co., Woolen cloths, 149.
Carr, James, Majolica, 107.
Carr, W. B., & Co., Base balls, 336.
Carr, W. S., & Co., Pumps, 377.
Carr & Sons, Window blinds, 160.
Carral, Widow of I., Tiles, 272.
Carranza, A. E., Counterpane, 257.
Carratraca, Corp. of, Mineral waters, 91.
Carré, E, Pumps, 345.
Carreras, R. C. de, Mat, 256; Bristle ware, 257.
Carrigan, P., Cooler, 377.
Carrillo, Blas, & Co., Silk, 275.
Carrington, De Zouche, & Co., Interior decorations, 110.
Carrol, R. E., Rope, 173.
Carroll, Francis, Model, 334.
Carson & Brown Co., Writing paper, 131.
Carson, E. J., Ebony, 170.
Carter, A. A., Screens, 113.
Carter, Dinsmore, & Co., Inks, etc., 104.
Carter, E., Planes, 137.
Carter, H., Tools, 137.
Cartiera Italiana, Paper, 234.
Cartwright, McCurdy, & Co., Iron, 57.
Carue, Ropes, 200; Gymnastic apparatus, 346.
Carvajal, A., Galloon, 266.
Carvalho, Anna C. L. da C., Embroideries, 288.
Carvalho, A. P. S., Bituminous schist, 82.
Carvalho, Antonio Raymundo, Brushes, 289.
Carvalho, D. Maria da C., Fibre articles, 284.
Carvalho, Ferreira de, & Bro., Soap, 252.
Carvalho, I. C. A., Linen fabrics, 285.
Carvalho, Joaquin José, Shoes, 288.
Carvalho, Manuel, Spurs, 290.
Carvalho e Mello, Fowling piece, 289.
Carvalho, Venceslau M. de, Marbles, 94.
Casademont, M., Pills, 278.
Casademunt, M., Bottles, 272.
Casado, M., Tiles, 272.
Casanovas, J., & Sons, Cloths, 275.
Casaramona, J., Blankets, 274.
Casariego, Cayetano, Ferruginous water, 92.
Casarir, A., & Co., Porcelain, 265.
Casas, D., Organzine, 296.
Casas, J., Hair work, 277.
Casas & Jovér, J., Prints, 273.
Case Bros., Paper boards, 132.
Case, J. I., Wisconsin, 14.
Casella, G., Shoes, 234.
Casgrain, Stoneham, Tripoli, 73.
Cashmore, T., Clay, 73.
Casmani, D., Instrument, 371.
Cassal, A., Skin, 311.
Cassegrain, F P., Arms, 237.
Cassell, Petter, & Galpin, Books, 338.
Casseres, A. de, Clocks, 361.
Cassim Bakar, Blankets, 296.
Cassinara, E., Billheads, 234.
Castamouni, Gov't of, Carpet, 296.
Castell de Pons, A., Tapestry, 275.
Castellani, A., Silver, 234.
Castellani, T., Crockery, 233.
Castello Branco, J. da S. F., Salt, 283.
Castello de Vide, Sulphur Baths of, Waters, 95.
Castellon Prov. Board of Agri., Marble, 90.
Castelo, G., Medicinal herbs, 259.
Castelvedere, L., Candelabra, 233.
Castilia, Mines of, Coal, 89.
Castilla, A. y, Book, 266.
Castillo de Locubin, Corp. of, Jasper, 90.
Castillo, V., Book, 266.
Castner, A., Castings, 206.
Castorena, Miss M, Embroidery, 265.
Castre, L., Idaho, 12.
Castro, J. V. P., Thread, 285.
Castro, Joaó Vaz Pacheco, Rope, 289.
Catalano, A., Furniture, 233.
Catamarca Provincial Commission, Quartz, 84; Rock salt, 255; Table cloths, 256; Woolen articles, 257; Crochet work, 258; Herbs, 259; Leather caparisons, 260.
Catanzaro, Giuseppe, Liquorice paste, 231.
Catara, Government of, Salep, 304.
Catasauqua Iron Co., Rolled iron, etc., 57.
Caterson, Wm. M., Bottles for poisons, 108.
Catherine, Fabrics, 302; Collars, 303.
Cathiard, C. F., Boots, etc., 253.
Cathrineholms Iron Works, Stoves, 80.
Catlin, J., Wheat, 163.
Cattaneo, A., & Bro., Paper, 234.
Cattari, Giorki, Olives, 307, 312.
Caughey, S. M., Wool, 159.
Caulier, F., Bedstead, 111.
Causey, J. W., Delaware, 12.
Cauvin's Distillery, Rum, 181.
Cavalcanti, J. S. H., Umbrella, 254.

Cavaleri, A., Album, 234.
Cavalho, José Baptista Valhe, Spun silk, 287.
Cavallaro, L. & G., Beds, 233.
Cavalry, Direction of, Equipment, 276.
Cavalry, Dir. General of, Mounting, 279.
Cavanillas, Juan, Galena, 87.
Cavaquinha, J. A., Earthen water vessel, 284.
Caveira Mining Co., Ore, 94.
Cavelles y Ferré, J., Serges, etc., 273.
Cavern & Button, Hinges, 190.
Cawood, S., Table cloth, 169; Cotton, 171.
Cayol, Mrs. T., Flowers, 181.
Cazas Abdoullah, Belts, 299.
Cazas Ahmed, Belt, 299.
Cazas, D., Silk, 297.
Cazas, D. I., Hosiery, 300.
Cazas Said, Belts, 299, 300; Garters, 303.
Cazas, T., Thread, 295; Silk goods, 297, 305.
Cazaubon, D., Pumps, 200.
Cazi, A., Cotton, 314.
Cazin & Noyon, Laces, 197.
Cedar Hollow Lime Co., Lime, etc., 54.
Celedonia, Diaz de la Vega, Perfumes, 261.
Celluloid Manufacturing Co., Brushes, 128.
Celluloid Novelty Co., Jewelry, 126.
Cenami, Count Bartolomeo, Olive oil, 231.
Centennial Commission of the American Society of Civil Engineers, Drawings, 334.
Centennial Guide Book Co., Guide, 328.
Centennial Rolling Chair Co., Chairs, 111.
Centennial Safe Deposit Co., Safes, 336.
Centeno, L., Teeth, 279.
Center Furnace, Ores, 48, 49; Iron, 58, 59.
Central Drug Store, Mineral water, 97; Resin, 307; Syrups, 313.
Central Glass Co., Pressed glassware, 109.
Central Ohio Salt Co., Salt, 101.
Central Union of Fine Arts, Albums, 344.
Cerezanian Society, Soda, 91.
Cerezuelo, Gonzalo, Galena, 87.
Cerna, D., Music, 266.
Cerquinho, Francisco A. V., Jewelry, 288.
Cervény, V. F., Instruments, 351.
Cervera & Co., Tiles and bricks, 256.
Cervera, Luis, Lime, 90.
Cervin, C. G., Model, 362.
Cesar, José Maria, Model, 267.
Cesena Sulphur Co., Sulphur, 81.
Ceva y Llorens, E., Sandals, 276.
Chaban Assiani, Belt, 303.
Chaban Hadji, Wooden cups, 305.
Chaban Hussein, Calico, 294.
Chaban Oglou, Carpet, 297; Skin, 310.
Chabin, H., Stained windows, 194.
Chace Mills, Printing cloths, 118.
Chaco, Commission of, Embroidery, 258.
Chacun, M., Teeth, 266.
Chadwick, J. T., Massachusetts, 12.
Chaffin, Staples, & Co., Ores, 48.
Chagir, Agha, Almonds, 307.
Chaigneau, Julie, Newspapers, 261.
Chaix, A., & Co., Books, 344.
Chaki-sho-sha Co., Jars, 244; Service, 245; Embroidery, 246; Bronzes, 248; Box, 249.
Chakir, Agha, Olive oil, 291; Carpets, 296; Acorn cups, 306.
Chakir, Elké, Soap, 291.
Chakir, T., Carpets, 296.
Chalamel, Alf., & Co., Fabrics, 195.
Chalfant Manufacturing Co., Irons, 377.
Chamber of Commerce, Reims, Fabrics, 195.
Chamber of Commerce & Arts, Sienna, Marble, 81; Olive oil, 231.
Chamberlin, Whitmore, & Co., Stationery, 130.
Chambers & Co., Umbrellas, 127.
Chambers, T. F., Black varnish, 145.
Chamdelon, O., Carpet, 296.
Chameroy & Co., Pipes, 200; Scales, 344.
Chamlotte, Malatia, Oil, 291.
Champion Fence Co., Fence, 140, 378.
Champion, G., Arrowroot, 158.
Champion Spouting Spring, Waters, 55.
Champromy, J. B., Foulards, 196.
Chaná, B., Cotton goods, 253.
Chance Bros., Chemical products, 144.
Chance Bros. & Co., Glass, 147.
Chandler, C. F., Judge, Gr. III., 15.
Chandler, C. H., Roofing slate, 52.
Chandler, W. H., Judge, Gr. X., 17.
Chanudet, L., Model, 345.
Chanute, Octave, Engineering, 334.
Chaouch, I., Chisels, 305.
Chaouch, M., Olives, 307.
Chaouch Mahmoud Agha, Boots, 301.
Chapeaurouge, C. de, Map, 368.
Chapelle & Co., Blankets, 233.
Chapin, C. O., Judge, Gr. XIII., 17.
Chapleau, Godfroi, Safes, 188; Tools, 190.
Chapman & Bros., Dry goods, 122.
Chapman, J. W., Teeth, 136.
Chapman, Mrs. H. M., Skirt supporter, 123.
Chapman Slate Co., Roofing slate, 52.
Chappée, A., Iron pipe, 194, 200.
Chapsal, A., Shoes, 197.
Charade, Hadji Ali, Madder, 306.
Charageat, E., Umbrella, 198.
Charbonne-Thuilliere, J., Cutlery, 199.
Charchou Akissa, Lentils, 309.
Chardin, E., Silks, 196.
Chardron, E., Dictionary, 369.
Charleroi Iron Manfg. Co., Iron, 77.
Charles, A., & Co., Gloves, 240.
Charleston Mining & Manufacturing Co., Nodules, 55; Model, 60.
Charlier, J. B., Beer, 218.
Charlotte Furnace Co., Ores, 49; Iron, 59.
Charnaux, F., Photographs, 358.
Charpentier & Co., Publications, 344.
Chase, F. & P. F., Boilers, 143.
Chase, G. W., Photographs, 329.
Chase, H., Alternate, 9.
Chase, H. M., Washington Ter., 14.
Chase, John S., Paste, 130.
Chase, M. K., Granite pedestal, 52.
Chastel & Co., Hats, 253.
Chatain, H., Oven, 375.
Chateau, L. A., Paper, 199.
Chatel, Mr., Judge, Gr. IX., 16.
Chattanooga Mineral Co., Ores, 50.
Chatten, M., & Co., Woolen stuff, 217.
Chatwood, S., Safes, 147.
Chaul Kepka, Olive oil, 291.
Chavero, A., Essays, 266.
Chaves, A. P. dos S., Iron furniture, 284.
Chavirdi, H., Vests, 300.
Chawshaw French Toilet Powder Co., 105.
Cheavin, G., Filters, 148.
Chebert, J., & Co., Raw silk, 195.
Cheik, M., Garment, 300.
Chemical Joint Stock Co., Chemicals, 201.
Chemical Laboratory, Chemicals, 252.
Chemical Technical Manf'y, Porcelain, 207.
Cheney Brothers, Silks, etc., 123.
Cherbedji Mehemed, Skin, 310.
Cheri Oglou Ahemed Agha, Yarn, 296.
Cherif Agha, Wool, 314.
Cherif Effendi, Mat, 293; Honey, 312.
Cherif Oglou Mehemed, Oil, 313.
Cherifé, Madame, Blanket, 296.
Cherisor, Government of, Linen, 295.
Cherishor, Government of, Gum, 306; Rice, 308; Skin, 311.
Cherkis Berké, Lockets, 302.
Chervin, Book, 344.
Chesebrough Manf'g Co., Perfumes, 105.
Cheshire Manufacturing Co., Buttons, 129.
Chessman, W. H., Lime, 102.
Chester Iron Co., Iron ore, 49.
Chester, Stephen, Engineering, 334.
Chevrier, Pharmaceutical preparations, 192.
Chew, J. C., Alternate, 9.
Chia & Ganga, Shoes, 276.
Chiavari, Agrarian Committee of, Soap, 232.
Chicho Zeka, Fabric, 298.
Chicho Zeko, Quilts, 294; Carpets, 296.
Chickering & Sons, Pianos, 333.
Chiclana, Corp. of, Jasper, 90; Pottery, 272.
Chicopee Manufacturing Co., Flannels, 116.

Chief Engineer of Highways, Granite, 89.
Chief Intendency of War, Equipments, 317; Wagons, 320; Tester, 373.
Chiericoni, U., Cocoons, 233.
Chiesa Bros., Braids, 213.
Chiffray, A., Fabrics, 195; Silk, 196.
Chikumaken Local Gov't., Bamboo, 247.
Childs, G. K., Buggy, 380.
Chili, Government of, Silver, etc., 85; Map, 261; Amálgamating machine, 262.
Chimalpopoca, F., Book, 266.
Ching, J., Calf, 180.
Ching, John, Oil, 179.
Chinic, Eugene, Steel, 74.
Chinoply, T., Skins, 310.
Chipman, David, Magnetite, 71.
Chipman, Geo. W., & Co., Linings, 122.
Chiraux, L., Blacking, 192.
Chiris, A., Perfumery, 193.
Chisholm, W., Ladies' trunks, 189.
Chiuji, K., Tea pots, 245.
Chivot, N., Machine oils, 192.
Chormann, E. G., Easels, 111.
Chouet & Co., Dentifrice water, 193.
Chovet, L., Pictures, 194.
Chowne, E. G., Sugars, 158.
Chrignan, Inkstands, 304.
Christen, J. J., Manuals, 354.
Christensen, Chr., Antique sléigh, 230.
Christesen, V., Table, 223.
Christiania Millstones Manf'g Co., 80.
Christiania Sail Cloth Manf'y, Yarns, 229.
Christo, Bonandji, Garments, 300.
Christo, Miss Bonandji, Waterproof, 300.
Christo, P., Beans, 309.
Christo, P., Waters, 292.
Christo, Polita, Pistol, 304.
Christo, Prevézé, Barley, 307.
Christo, Volonia, Barley, 307.
Christo, Yanina, Wheat, 307; Harrow, 314.
Christofle & Co., Goldsmiths' ware, 199.
Christy, Wm., Iowa, 12.
Chrome Steel Co., Steel, 57.
Chubb, C. F., Silk, 179.
Chubb, F. E., Beans, 183.
Chucco, M. C., Books, 368.
Chuck, T. F., Photographs, 162.
Chulan & Co., Rice, 251.
Churadé, Hadji Ali, Raisins, 307.
Church Hill Coal Co., Coal, 51.
Cibulski, C., Stoneware, 315.
Cirilo, Mingo, Coffee, 268.
Claes & Co., Show case, 109.
Claesen, C. H., Books, 359.
Claghorn, J. L., Judge, Gr. XXVII., 19.
Clara Santa Hacienda, Sugar, 268.
Clarborg, T. A., Case, 226.
Claremont, J. H., Massachusetts, 12.
Clariano Ciiró, Ángé, & Co., Tarleton, 273; Fabrics, 274.
Clark, C. W., Fixtures, 113.
Clark & Co., Hardware, 141; Shutters, 378.
Clark & Crompton, Wines, 168.
Clark, Edward P., Model apparatus, 338.
Clark, F., & Sons, Ores, 166.
Clark, G. P., Car, 382.
Clark, I. D., & Co., Cradle, 374.
Clark, J., jr., & Co., Cotton, 148.
Clark, J., & Sons, Bark, 162; Leather, 163.
Clark, L. W., New Hampshire, 13.
Clark & Maynard, Books, 326.
Clark & Sneider, Shot guns, 133.
Clark Thread Co., Spool cotton, 116.
Clark, W. A., Montana, 13.
Clark, William, & Co., Scroll iron, 56.
Clarke Combination Lock Co., Locks, 142.
Clarke, David, Medicinal preparations, 179.
Clarke, F. L., Curiosities, 250.
Clarke, G. E., Wool, 180.
Clarke, R., Silver rings, 258.
Clarke, R., & Co., Lasts, 191.
Clarke, Reeves, & Co., Models, 334.
Clarke, U. E., & Co., Valises, trunks, 189.
Clarkson, C. F., Alternate, 9.
Clarós, Pablo, Jet, 91.
Claus, Cav. Prof. Niccolo, Treatises, 365.
Claus, Heinrich, & Gross, Models, 351.
Clauseau, Father & Son, Madder, 192.
Claxton, Remsen, & Haffelfinger, Books, 327.
Claxton, Robert, Chronometer jewelings, 339.
Clay, R., Tubing, 148; Converter, 152.
Clay, Randolfe, & Co., Tray, 153.
Clay, Randolph, Model, instrument, 339.
Clear, E., Wheat flour, 170.
Cleaver, C., Cocoa, 184.
Cleghorn, W., Minerals, 64.
Clément & Co., Pearls, 197.
Clement, R., Limbs, 135.
Clemons, C. H., Limestone, 53.
Cleneay, T., Implements, 329.
Cléray, E., Jewelry, 198.
Clerke & Co., Lasts, 191.
Clery, H., Pharmaceutical preparations, 192.
Cleveland, F. L., Kentucky, 12.
Cleveland, H. W. S., Design, 336.
Cleveland Lightning Rod Co., Rods, 331.
Cleveland Malleable Iron Co., Iron, 59.
Cleveland Non Explosive Lamp Co., 115.
Cleveland, O., U. S. Commissioner, 9.
Cleveland Rl'g Mill Co., Ores, 47; Steel, 56.
Cleveland Steel Horseshoe Co., 140.
Clever, J., Chemicals, 201.
Clickerman, L. M., Embroidery, 126.
Cliff, John, Fire brick, 146.
Clifton Mine, Fossils, 67.
Climent, Hernandez, Artificial stone, 90.
Clinton, E., & Co., Brushes, 142
Clinton Furnace, Iron ores, 48; Pig iron, 58.
Clinton M'g. Co., Cotton goods, 116.
Clinton Mills Co., Blankets, etc., 120.
Clinton Wire Cloth Co., Wire goods, 115.
Clipp, G. W., Pair of horns, 170.
Clive & Hamilton, Wool, 159.
Cloete Brothers, Wines, 171.
Cloete, H., Wines, 171.
Cloete, J. P., Wines, 171.
Cloncurry Mine, Manganese, 67.
Clonetz Mining District, Iron ore, 98.
Close, Thos. J., Settees, 112.
Cloth Manufacturers' Association, Cloths, 208.
Clough Stone Co., Stone, 53.
Clough & Warren Organ Co., Organ, 334.
Cloutier, George, Shooting boots, 189.
Clum, H. A., Storm writer, 329.
Clymer, F. T., Phaeton, 380.
Coahuila, State Gov. of, Zarapes, 265; Fruits, 268; Cotton, 269.
Coahuistla Hacienda, Wheat, 268.
Coates, H. C., King penguin, 170.
Coates, Laning, Ferns, 156.
Cobeta, Corporation of, Iron and iron ore, 92.
Cobourg & Petersboro' Iron Co., Ore, 71.
Coburn Mfg. Co., Canopy wardrobe, etc., 112.
Cocey, J. G., Apparatus, 374.
Cochran, J. M., & Co., Coal, 51.
Cochran, T., Finance, 10.
Cochrane, Robert C. E., Drawings, 340.
Cockburn, D., Carved frame, 188.
Coco & Bro., Soaps, 271.
Coco, S., Furniture, 233.
Codelia, Juan, Vermicelli, 262.
Codman & Shurtleff, Instruments, 136.
Coe, L. W., Connecticut, 11.
Coelho, F., Bricks, 284.
Coelho, Francisco, Clay, 95.
Coelho, José de Sorna, Galloons, 287.
Coenen & Wolter, Mixed fabrics, 203.
Coez, E., & Co., Paints, 192.
Coffani, M., Parasols, 210.
Coffee Surrogate Factory, Coffee, 214.
Coffin, Redington, & Co., Silica, 55.
Cohansey Glass Mfg. Co., Glass, 108, 115.
Cohen, Chas. J., Stationery, 131.
Cohen & Levy, Flour, 158.
Cohen & Risch, Books, 347.
Cohille, Guillermo B., Antiquities, 263.
Cohn, M., & Co., Corsets, 124.
Cohné, S., Soaps, 144; Bearings, 154.

Cohumer & Collet, Furniture, 198.
Coignet, Father & Son, Chemicals, 192.
Coimbra, C., Earthenware, 284.
Colac, Shire Council of, Photography, 162.
Colange, L. de, Indicator, 344.
Colas, E., & Christoff, C., Extract, 193.
Colby Wringer Co., Wringers, 377.
Coldwell, M. A., Brush, 377.
Coldwell, T. H., U. S. Commissoner, 9.
Cole, Alexander, Bedsteads, 109.
Cole & Ballard, Carriages, 381.
Cole, Rufus, Copper glance, 70.
Cole, W., & Son, Arrowroot, 158.
Coleman Eagle Bolt Works, Bolts, 141.
Coleman, J., Judge, Gr. XXIII., 18.
Coleman, W., Gypsum, 73.
Coleraine Iron Co., Coal, 50; Pig iron, 57.
Colgate & Co., Soaps, etc., 106.
Colima, State Government of, Indigo, 268.
Colima, State Government of, Woods, 267.
Colima Workingmen's Club, Cottons, 265.
Colin & Co., Books, 344.
Colinet, E., Work, 359.
Collaço, M. M., Linen fabrics, 285.
Coliaço, Manuel Matheus, Woolen fabrics, 286.
College of the Immaculate Conception, Hammocks, 253.
College of Superior Works of Art in Silk, 275.
Collender, H. W., Billiard tables, 109.
Collera, Prov. Board of Agri. of, Spar, 91.
Collett, R., Map, 364.
Collignon Bros., Chairs, 109.
Collin, Ch., Watch glasses, 212.
Collins & Co., Swords, etc., 134; Sledges, 136.
Collins & Sturgeon, Reclining chair, 112.
Collins, T. E., Montana, 13.
Collinson & Lock, Furniture, 147.
Colliot, Désiré, Watches, 355.
Collison, H. C., Wines, 171.
Collmann, L. W., Pianos, 147, 359.
Colodrero, M. C. de, Table cloth, 258.
Colodrero y Pedra, M. del T., Palm, 258.
Cologne Müsen Mining Co., Iron, 75.
Colonial Co.'s Agency, Sugar, 184.
Colonial Museum, Minerals, 63; Ornaments, 155; Tan barks, 156.
Colonial Sugar Refining Co., Sugars, 158.
Colthurst, Symons, & Co., Bricks, 146.
Colton, A. J., Planes, 137.
Colton, F., Illinois, 12.
Colton, J. W., Extracts, 106.
Colton, Martha J., Signals, 332.
Colt's Patent Fire Arms Mfg. Co., Arms, 133.
Columbia Plantation, Sugar, 175.
Columbia Slate Co., Slate, 53.
Columbia Spring Co., Flannels, 121.
Columbian Marble Co., Tiling, 52.
Colunga, Corporation of, Marble, 90.
Colvin, C., Oil, 182.
Colwell, F. E., & Co., Mouldings, 113; Gloves, 126.
Colyer, J., & Co., Buggy, 380.
Comas Delgado, R., Paper, 278.
Comegys, J. P., Delaware, 12.
Comellini & Buratti, Corsets, 234.
Commercial & Ind. Mutual Co., Reports, 360.
Comminassi Bros., Gun barrels, 235.
Commission General, Brazil, Ores, 81; Perfumery, 252.
Companhia das Lezirias, Salt, 283.
Comport, H., Sauce, 164.
Comstock, C. C., Doors, 378.
Comstock, Castle, & Co., Stove, 375.
Comstock Dickinson Ivory Co., Combs, 129.
Comte, M., Cottons, 265.
Conard, A. & I., Implements, 137.
Conboy, D., Sleigh, 383.
Conceiçao, Umbelina da, Saddlebags, 289.
Concord Granite Co., Pedestal, 53.
Conde Puerto & Co., Shirts, 276.
Condell, J., & Son, Limbs, 135.
Condiot, N. W., New Jersey, 13.
Condit, Hauson, & Co., Salts, etc., 102.
Condon, T., Oregon, 13.
Conkling, F. A., New York, 13.
Conly, E., Judge, Gr. XIII., 17.
Conn & Dupont, Musical instruments, 334.
Connecticut, Educational Dept. of, 323.
Conner, Thos., & Sons, Cords, 191.
Connor, J., Oats, 163.
Connor, Mrs., Quilt, 150.
Conover, A. V., Florida, 12.
Conover, J. A., & Son, Horses, 381.
Conquis, M., Earthenware, 284.
Conrad Bros., Shirts, 124.
Conrad, Wm. C., Cane, 129.
Conradi Bors., Soap, 271.
Conradi, Sons of J. B., Soap, 271.
Consolidated Fruit Jar Co., Jars, 377.
Constancia Society, Sulphate of soda, 91.
Constant, E., Iron, 77; Bolts, etc., 218.
Constanti Giorki, Fabrics, 298.
Constanti, Miss S., Socks, 300.
Constantinople, Adm'n of Mines, Ore, 97.
Constantinople, Government of, Cottons, 294; Woolens, 295; Silks, 298; Caps, 301; Rifles, 304; Saddle, 305; Morocco, 311; Coins, 371.
Conti, F., & Sons, Soaps, 232.
Conti, J., Cottons, 273; Woolens, 274.
Continental Manf'g Co., Inks, etc., 105.
Continental Mills, Sheetings, 116.
Conto, Antonio Guilherme, Jewelry, 288.
Contucci, Eustachio, Olive oil, 231.
Con-ui, Isaac, Charcoal, 93.
Converse, John A., Gypsum, 73.
Conway, Wm., Laundry soap, 103.
Cook, Caleb, Oil, 104.
Cook, E. A., & Co., Books, 326.
Cook, I., Ores, 47.
Cook, J. F., Missouri, 13.
Cook, James Nelson, Matting, 155.
Cooke Bros., Pins, 151.
Cooke & Co., Salt, 283.
Cooke, G. K., & Co., Stamps, 130.
Cool, G. T., Mantels, 220.
Coon & Van Volkenburgh, Collars, 125.
Cooper, C. W., Finance, 11.
Cooper & Co., Inks, 145.
Cooper, Henry Prouse, Clothing, 123.
Cooper, Hewitt, & Co., Ores, 49; Iron, 56.
Cooper & Holt, Furniture, 147.
Cooper, J. L., Alternate, 9.
Cooper, J. W., & Bro., Cabinet ware, 110.
Cooper, Robert, Washing crystals, 187.
Cooper Union Evening School of Science & Art, Drawings, 322.
Co-operative Iron & Steel Works, Iron, 57.
Cooppal & Co., Charcoal, 215.
Coozong Oil & Coal Co., Coozongik, 166.
Cope, C. W., Judge, Gr. XXVII., 19.
Copeland, Geo., Cordage, 191.
Copeland & McLaren, Clay, 73.
Copenhagen Leather Man'fy, Soles, 224.
Copland, McLaren, & Co., Wire brushes, 191.
Coplay Cement Co., Cements, 54.
Copp Bros., Stoves, 188; Enameled ware, 190.
Coppen, F., Water colors, 170.
Copper Miners in England, Tin plates, etc., 62.
Corady, Julia de, Millinery, 197.
Coral, Joanna Maria Dias, Embroideries, 288.
Corbett, John, Salt, 144.
Corbin, P. & F., Hardware, 140.
Corbon, Lamps, 194.
Corcelle, J., & Co., Watch dials, 355.
Corcho, D., Nails, 279.
Corcuera, Manuel, Iron ores, 86.
Cordera, Manuel, Oil, 268.
Cordes & Ellgass, Corks, 206.
Cordoba, Province of, Prov. Com., Lead, 83; Oil, 255; Counterpanes, 256; Shoes, etc., 257; Herbs, 259; Harness, 260.
Cordoba University, Minerals, 83.
Corestine, J., & Co., Hats, 189.
Corey, J. H., Boiler, 376.
Corica, A., Shot, 235.
Coritiba Museum, Slates, 82.
Corliss, G. H., U. S. Commissioner, 9.
Corliss Safe Co., Safes, 112.

Cornejo, Melchora T., Lime, 84; Water, 256.
Cornelius & Sons, Bronzes, 114.
Cornell, A. B., New York, 13.
Cornell, J. B. & J. M., Iron work, 143.
Cornell, S. W., Compass, 342.
Cornell & Shelton, Paper boxes, 132.
Corner, Wm. H., Maryland, 12.
Cornish & Co., Life saving apparatus, 162.
Cornish, T. E., Clocks, 331.
Cornu, E., & Co., Bronze, 199.
Coromina & Antiga, Paper, 278.
Corporation of Curriers, Morocco, 311.
Corps of Mining Engineers, Ores, 88; Asphaltum, 89.
Corral, Francisco, Horseshoes, 92.
Correa, G., Clay, 82.
Correa, J. S., Tiles, 252.
Correia, J. S., Calcareous rocks, 82.
Corrello, Rafael, Galena, 87.
Corrientes, Prov. Com., Stones, 84; Delf, 256; Yarns, 257.
Corsini, Prince Tommaso, Olive oil, 231.
Corta, Basto, & Co., Stoves, 284, 289.
Corta, Braja, & Son, Hats, 288.
Cortazar, D. de, Judge, Gr. I., 15.
Cortes Pereira Antimony Exp. Co., Ore, 94.
Cortez, Agapito, Wines, 268.
Cortez, P. de Siqueira, Amethysts, 82.
Corticine Patent Floor Covering Co., 149.
Cortines, Augustin de, Sulphurous water, 92.
Coryn, J., Chignons, 217.
Cosentini & Caruso, Liquorice, 232.
Cosgriff, A., Iron ore, 48.
Coshocton Stone Co., Stone, 54.
Cossard, Laces, 197.
Costa, A. F., Book, 363.
Costa, C. J. da, Woolen fabrics, 286.
Costa, Eymael, & Co., Hides, 254.
Costa, G., Books, 369.
Costa, J. F. da, Pictures, 254.
Costa, J. S. da, Oils, 233.
Costa, José Antonio, Webs for shoes, 289.
Costa, M. F. da, jr., Artificial teeth, 254.
Costa, Netto J. da, Fossils, 82.
Costa, Prévézé, Soap, 291.
Costa, R. de C., Ink, 283.
Costanti, A., Snuff, 3 9.
Costas & Carvalho, Shawls, 286.
Costenoble, C., Judge, Gr. XXVII., 19.
Costenoble, Hermann, Books, etc., 347.
Costerfield Gold & Antimony M'g Co., Ore, 65.
Costermans, C , Trunks, 220.
Costermans, J., Hearth, 216.
Coston, W. F., Signals, 332.
Costro, J. V. az P., Mill, 370.
Cotta, I. G., Classics, 347.
Cottier, C., & Son, Fancy stones, 127.
Couceiro, J. do Santos, Violin and bow, 367.
Couldrey, W. H., Sugar, 180.
Coullant, Aimé, Horse collars, 254.
Coulter, E., Iron ore, 64.
Coulter, J., Clay, 73.
Court, P. W., Wool, 171.
Cousin, P., Map, 342.
Coutinho, A. R. da S., Model, 370.
Coutinho, A., & Titho, Jewelry, 288.
Coutinho, D. M. da Franca, Compass, 369.
Coutinho, José M. da C., Caps, 288.
Coutinho, Si va, Plans, 367.
Couvreur Sisters, Dresses, 217; Confections, 219.
Couvreux, W., Cutlery, 199.
Coux, Roseaux, Oils, 192.
Couyoun Oglou Andon, Wool, 314.
Covarriebias, F., Books, 266.
Cove, Jas. A., Gypsum, 73.
Coverdale, J., Clay, 68; Ochre, 182; Seaweed, 183.
Covert, L. B., Step ladder, 374.
Cowan, A., Ore, 71; Salt, 187.
Cowan, T., & Co., Flour, 167.
Cowdin, E. C., Judge, Gr. IX., 16.
Cowell, J. J., & Co., Hardware, 141.
Cowles, C., & Co., Hardware, 379.
Cowperthwait & Co., Books, 321.
Cox Bros., Twines, 148.
Cox, C. C., Judge, Gr. XIV., 17.
Cox, E. K., Wool, 159.
Cox, E. T., Judge, Gr. II., 15; Drawings, 335.
Cox, F. & A., Wool, 159.
Cox, G. H., Wool, 159.
Cox, Justice, jr., & Co., Iron, 57.
Cox & Sons, Furniture, 147.
Cox, W. O., Cut tobacco, 262.
Coxen & Co., Earthenware, 107.
Coyne, Geo. S., Acids, etc., 102.
Crab Orchard Iron Co., Ore, 47; Steel, 56.
Crabb, R. S., Malachite, 166.
Cragin, I. L., & Co., Soap, 103.
Craig & Rose, Paints, 144.
Cramer, H. G. D., Pasteboard, 221.
Cramer, J. W., Chemicals, 202.
Crandall, C. J., Crutches, 378.
Crandall & Co., Carriages, 381.
Crandall, J. A., Carriage, 381.
Crane Bros., Paper, 131.
Crane & Co., Paper, 131.
Crane Iron Co., Ore, 50; Iron, 56.
Crane, L., jr., Paper, 131.
Crane, S. O., Wheels, 379.
Cranz, Joao, & Pinto, Harness, 254.
Crassier & Co., Laces, 197.
Craven, Dernill, & Co., Tiles, 146.
Crawford, G. A., Alternate, 9.
Crawford, J. D., & Co., Hematite, 71.
Creamer, W. G., & Co., Lamps, 375.
Creigh, J. D., U. S. Commissioner, 9.
Crescent Mills, Writing paper, 131.
Crespo, Melchor, Hats, 276.
Cressier, E., Watches, 344.
Cresswell, C. F., Seeds, 182; Wheat, 183.
Crest, M., & Co., Pack saddle, 260.
Crestuma Weaving Co., Yarns, 285.
Creswell & Co., Salt, 283.
Creswick, Council of, Photographs, 162.
Crevecœur, H. S. J., Statistics, 359.
Crew, Moore, & Levick, Oils, 103.
Crippa, F., Wine, 164.
Crispo, Moncada Carlo, Limestone, 81.
Croaker, Scott, & Co., Star antimony, 65.
Crocker Bros. & Co., Copper, 59.
Crocker, L. O., Punches, 382.
Croes, J. J. R., Engineering, 334.
Croll, Benj. P., Safety lamp, 376.
Crommelinck, Lace, 217.
Crompton, J., & Co., Boxes, 132.
Croon Bros., Cotton and mixed goods, 203.
Crosby, Gilsinger, & Co., Velocipede, 380.
Crosby & Hecker, Car coupler, 382.
Crossley, John, & Sons, Carpets, 150.
Crossman, A. W., & Son, Tools, 138.
Crotta, Giannina, Album, 365.
Crouch, Henry, Microscopes, 339.
Crowell, S., Fence, 378.
Crown Perfumery Co., Perfumes, 145.
Crown Surgical Instrument Manufactory, 319.
Crowther, Bishop, Mats, 177.
Crowther, D. W., Dentistry, 136.
Crozier, D. W. C., Model, 334.
Crozier, H. P., Car starter, 382.
Crozier, W., Wool, 168.
Cruickshank, J. D., Red pine, 156.
Cruz, B. A da, Magnetic iron, 82.
Cruz, Joaó Maria, Ropes, 289.
Cruz, L. F. de S., Escutcheons, 289; Machine, 370.
Crystal Glass Co., Glass table ware, 109.
Csánk & Co., Wood work, 228.
Cuantecomatan Co., Coffee, 268.
Cuchi y Deixens, T., Arsenic, 271.
Cucurny, P., Earthenware, 272.
Cuevas Bros., Wheat, 268.
Culbert, W. H., Harness, 191.
Cull, H., Furniture, 377.
Culmer, W., & Sons, Brushes, 153.
Cumberland Nail & Iron Co., Pipe, 57.
Cumming, A., & Co., Cocoanuts, 184.
Cumming, T. F., Wools, 165.

Cummings, J., Finance, 10; Judge, Gr. XII., 17.
Cummings, J. S., & Co., Neck wear, 125.
Cummins, H., Violin, 333.
Cuña, Americo, Agate, 83.
Cunha, Augusto Mendes da, Combs, 288; Knives, 289; Snaffles, 290.
Cunha Bettercourt, M. J. da, Minerals, 81.
Cunningham, A., Alabama, 11.
Cunningham, J., & Son, Landaus, 380.
Cunningham, P., & Co., Wheat, 156.
Cunningham, Peter B., Coal table, 111.
Cunningham, Portz, & Co., Spokes, 379.
Curtin, A. G., Pennsylvania, 14.
Curtis, A. A., Nevada, 13.
Curtis, A. W., Swing, 382.
Curtis, J. W., Painting, 161.
Cus-Kuri, Government of, Seed, 310.
Cusset, N., Gloves, 265.
Custodio & Silva, Woolen fabrics, 286.
Cutler, A., & Son, Business desks, 110.
Cutler, C., Flint, 328.
Cutler Manufacturing Co., Yarns, 116.
Cutter, Ephraim, Chair, 110, 136.
Cuypers, J. F., Piano, 361.
Cyrette, Ambrose, Silver ores, 70.
Czeiger, S., Chromos, 211.
Czerminska, I., Embroidery, 209.

D.

D'Abadie, St. L., Cocoa, 184.
Dabert & Co., Fabrics, 195.
Dabney, R. L., Straw mat, 284; Hat, 288.
Dabney, S. W., Shawl, 287; Eagle, 288.
Da Costa, D. R., Tooth wash, 105.
Dagand, E., Coffee pots, 194.
Dahlerup, V., Judge, Gr. XXVII., 19.
Dahll, J., Apatite ore, 80.
Daillens Cossonay Orphan Asylum, Regulations, 357.
Daintree, R., Fossils, 67; Photographs, essences, 179; Oils, 180.
Dairy Station, Books, 353.
Dale, Dr., Wax, 170.
Dale Mfg. Co., Trimming braids, 123.
Dale, T. H., New Jersey, 13.
Dalgety, Moore, & Co., Wheat, etc., 182.
Dalinau, J. M., Flannels, 274.
Dalla Pozza, Silk, 233.
Dallmeyer, John Henry, Telescopes, 339.
Dalp, J., Manuals, 354.
Dalton Bros., Flour, 118.
Dalwood, W. F., Guano, 168.
Dalzell, D., & Sons, Boxes, 379.
Damascus, Government of, Linen, 295; Hosiery, 300; Seeds, 304; Gum, 306; Wheat, 308; Wax, 311; Hemp, 314.
Damian Garcia, José, Waters, 91.
Damiano, H., Skins, 311.
Damman, Edm., Ship biscuit, 219.
Damon, S. C., Book, 250.
Dana, E. A., Projectiles, 133.
Danberger, G., Bronze ware, 210.
Danby, G., & Co., Railings, 143.
D'Andria, Lombard, & Co., Carpets, 296.
D'Andrian & Wegelin, Chemicals, 201.
Daniell, A. B., &Son, Ornamental vases, 146.
Daninos, A., Judge, Gr. VIII., 16.
Danish Preserved Butter Co., Butter, 224.
Danks, J., Valves, 161.
Dann Bros. & Co., Wood work, 381.
Danube Regulation Com'n, Models, 351.
Danville Iron Co., Railroad iron, 57.
Danville School Slate Co., Slate panel, 72.
Danville Slate Co., School slates, 72.
D'Araujo, Gomes, Music, 366.
Darby, E., & Son, Wire, 378.
Dardalah, Mouradile, Pyrites, 97.
Dardanelles, Government of, Skin, 311.
Dardel, F. L., Judge, Gr. XXVII., 19.
Dare, C. W. F., Carriage, 381.
Darebin Shire, Council of, Photography, 162.
Darling, Brown, & Sharpe, Rules, 330.
Darling, S., Car window, 382.
Darlot, Photographs, 345.
Darnius, Count of, Waters, 91.
Darrach, S. A., Crutch, 135; Drawing, 335.
Dartmouth Ropework Co., Cordage, 191.
Dash, O., Hats, 151.
Dassi, G., Judge, Gr. VIII., 16.
Dassonville, de St. Hubert, Cements, 219.
Dassonville, Lace, 217.
Date, John, Diving apparatus, 191.
Dates Patent Steel Co., Edge tools, 190.
Daubin & Co., Fly paper, 192.
Dauli, C., Morocco, 311.
Dauphin, L., Printing, 343.
Davenieré, E., jr., Lace, 197.
Davenport, G. H., Wool, 180.
Davenport, S., Oil, 166; Woods, 167; Wines, 168.
Davey & Gooding, Sugar, 180.
Davey, W. O., & Sons, Oakum, 132.
David-Damoiseau, & Co., Chains, 199.
David, Ilias, Cotton thread, 294.
David, J. B., Ribbons, 196.
David, José de A., Portmanteau, 289.
Davids, Thad., & Co., Inks, etc., 104.
Davidson, H. A., Gypsum, 73.
Davidson, J. E., Sugar, 180.
Davidson, T., jr., & Co., Pipes, 146.
Davidson, W., Copper glance, 70.
Davies, John, Crivo work, 288.
Davies, R. H., Shells, 183.
Davies, Robert S., & Sons, Cloths, 149.
Davila, H., Cottons, 265.
Davila é higos, Brandies, 264.
Davila é hyos, Plans, 263.
Dávila, Teodora, Embroidery, 281.
Davis, C. H., & Co., Books, 326.
Davis & Chaddock, Fire bricks, 106.
Davis, E. T. C., Photographs, 335.
Davis, F. C., Bitters, 168.
Davis, I. J., Sandstone, 53.
Davis, Isaac, Crockery ware, 107.
Davis, J., Window sash, 160.
Davis, J. G., & Son, Hubs, 379.
Davis, J. T., Artificial eyes, 136.
Davis Level & Tool Co., Tools, 137.
Davis, O. W., jr., Ores, 47; Iron, etc., 57.
Davis & Wilson, Canes, 151.
Davison, Mrs., Coffee, 177.
Davoll Mills, Sheeting, etc., 118.
Dawson Bros., Books, 190.
Dawson, S. J., Silver ores, 70.
Day, A. G., Cables, 332.
Day & Frick, Soaps, 103.
Day, G., Splints, 135.
Day, H. H., Nevada, 13.
Day, J. M., Wax, 262.
Daye, F., & Co., Pressed leather, 218.
Dayton, G. E., Sashes, 378.
Daza, Francisco, Marble, 89.
Daza y Ruiz, Francisco, Minerals, 87, 91.
Daza y Ruiz, Lucar, Cobalt, 87.
Daza y Ruiz, Seron, Iron ore, 87.
Dchoban Oglou Mehemed, Skin, 311.
Deady, M. P., Oregon, 13.
Deaf & Dumb Asylum, Regulations, 354; Reports, 360.
Deakin, R. T., Syringes, 330.
Dean, Henry, Stoneware, 146.
Dean, W., Wheat, 182.
Debain & Co., Piano, 345.
Debenham & Freebody, Gloves, 151.
De Beukelaer, F. X., Antwerp elixir, 218.
De Bock, M., Cabinet, etc., 112.
Debré, Government of, Sulphate of chalk, 96.
Debrus, Leclaire (Widow), Wooden boxes, 216.
Debrus, W., Wooden boxes, 216.
De Camp, Essie, Panel, 110.
Decatur, Stephen, Colorado, 11.
Decaux, Son, Cloth, 195.
Decew, Wm., Building stones, 72.
Decker Bros., Pianos, 332.

Decker, L., & Co., Billiard tables, 112.
Declercq, C., Thread, 216; Lace, 217.
Decol, M., Medicine, 235.
De Cuyper, C., & Noblet, A., Works, 359.
Dee, José Antonio, Wood mosaic, 262.
Deeth, Jacob, California, 11.
Deetz, E., Sleeping apartment, 111.
Degerfors Stock Co., Iron ores, 78; Iron, 79.
Degotardi, John, Mechanical printing, 340.
Degraves, C. & J., Wool, 165.
Degraves, J., Malt, 183.
Dehors, A., Toys, 198.
Dejonge, L., & Co., Paper, 133.
De Koninck, L. W., Works, 359.
Delagrave, C., Books, 344.
Delahaye, V. A., & Co., Books, 344.
Delal, M., Cloak, 300.
Delalain, J., & Son, Books, 343.
Delamere, J. H., Organs, 342.
Delamotte-Mougrenier, Merinoes, 195.
De Lange, A. G., Rugs, 220.
Delannoy, N., Chocolate, 218.
Delaware Chair Co., Chairs, 109.
Delaware, State of, Ores, 51.
Delaye, Hypolite, Kid gloves, 288.
Delegny Bros., Chemicals, 283.
Delepné, Stockings, 300.
Delettrez, Adolphe, Perfumery, 193.
Deleuil, Scales, 344.
Delf Factory of Sargadelos, Peat, 270.
Delgado & Co., Waistbands, 274.
Delgado, J., Syrups, 271.
Delgado, R., Counterpane, 277.
Delhez Bros., Woolen stuff, 217.
Delhez, C., Gymnastics, 351.
Deli Mourad, Fabrics, 296, 298.
Deliguy, Ernest, Ore, 94.
Delimé, Suleimaneeyah, Saddle cloth, 305.
Delius, C., Cloths, 203.
Delivré, L., Flowers, 198.
Dell, Aquila A., Table tops, 261, 262.
Della, C. N., Cornice, 233.
Dellachi, A., Matches, 232.
Delmotte, Hippolitus, White bristles, 219.
De Lorenzi, Cav. G. Batta, Violins, 365.
Demanet, A., Forged nails, 218.
Demar, L., Dress goods, 195.
Demarest, Joyce, & Co., Opera chairs, 111.
Demartini, I., Toilet soap, 207.
Demerdji, Constantin, Silk, 297.
De Mesmaecker, Fr., Bindery work, 218.
Demestre, E., Maize, 158.
Demeuter, L., Son, Furniture, etc., 216.
Demidoff, Paul, Iron ores, 98; Maps, 99; Bricks, 315.
Demitraki, Silk, 297.
Demorest, Mme., Patterns, 124.
Dempsey Wicker Covered Glassware Co., 380.
Demuth, Wm., & Co., Pipes, etc., 128, 139.
De Nava, G. di P., Essences, 232.
Denet, E., Moulds, 194.
Denham, T. M., & Bro., Shirt bosoms, 125.
Denizet, Langres, Cutlery, 199.
Dennison & Brown, Paper boxes, 132.
Dennison & Co., Paper boxes, 132.
De Notaris, S., Shoes, 234.
Denshin-riyo, Telegraphic Dep., Map, 248.
Dent, M. F., Watches, 339.
Denton, Drake W., Slate roofing, 52.
Deny, L., Construction materials, 199.
Deplanque, senior, Whetstone, 199.
De Poli Bros., Church bell, 235.
Deppeler, J., Wine, 164.
Depuy, B., Pharmaceutical preparations, 218.
Derbabian, Pedros, Wax, 312.
Derby, Philander, Cane-seat chairs, 112.
Derby Silver Co., Cutlery, 113.
Derepas, R., Gum, 158.
Derepas, W., Timber, 158.
De Richelieu, Madam F., Ornaments, 161.
Derogy, Instruments, 345.
Derrom, Andrew, Cottage, 336.
Dervich Effendi, Handkerchiefs, 302.
Dervich, O., Linen, 295; Mohair, 296.
Dervich Oglou Kokas, Gauzes, 299; Neckties, 302.
Dervich Oglou Nacif, Writing materials, 304.
Dervich Osman, Cigarette cases, 303.
Dervich Yaya, Bowls, 303.
Dervichian, Shirt, etc., 300; Cushions, 303.
Desbarolles, Works, 343.
Deschamps, Maurey, & Co., Brushes, 198, 200.
Deschiens, Machines, 344.
Des Cressonniéres & Son, Toilet soap, 215.
Desfeux, Ph., Roofing, 199.
De Sieto Bros., Essences, 232.
Design, Collective Exhibit of School of, 110.
De Silvestri, S., Silk, 234.
Des Mares, P. T., Lace, 217.
Desmet Bros., Textile fabrics, 216.
Desnoes, P., & Son, Cordials, 172.
Desoto Alkali Co., Soda, 144.
Desoucies, Carriages, 200.
Despot, Y., Hosiery, 300.
Dessain, H., Books, 359.
Dessauer, Alois, Fancy colored papers, 205.
Dessent, J., & Bros., Glass, 215.
Desteract, A., Books, 343.
Destexhe, A. M. T. J., Books, 359.
Détemmerman, P., Porcelain, 193, 198.
De Tournay, Catala, Printing, etc., 218.
Detroit Stove Works, Stoves, 375.
Deucher & Co., Works, 343.
Deut, J. R. de, & Co., Cotton canvas, 285.
Deutgen, L., Blackboard, 360.
Deutsch, A., Machine oils, 192.
Devenish, S., Woods, etc., 184.
Devesa, Dominguez J., Boots, 276.
Devine, Thomas, Galena, 71.
Devlin & Co., Clothing, 124.
Devoe Manufacturing Co., Oils, 103.
Devold, L. C., Cod-liver oil, 229.
Devos, C., & Bro., Cloth, 216.
Devosse, Blaise, Woolen stuff, 217.
Devotee, A., Ponchos, 257.
Deweidels, S., Gloves, 209.
Dewey, D. M., Plates, 327.
Dewey, O. C., West Virginia, 14.
Dewhurst, Arthur, Minerals, 64.
Dewhurst, J., & Sons, Cotton, 148.
De Wilde, F., Judge, Gr. III., 15.
Dewitt, F. J., Dakota, 12.
De Witt, Morrison, & Kelley, Augers, 137.
De Witt Wire Cloth Co., Wire work, 115.
De Wolfe, J. M., Phaetons, 383.
Dexter & Co., Mica, 48.
Dexter, J. E., U. S. Commissioner, 9.
Dexter, Lambert, & Co., Silks, 123.
Dexter Spring Co., Springs, 140, 379.
Deyhle Bros., Jewelry, 204.
D. Francisca, Colony of, Bricks, 252.
Diaba, H., Beans, 309.
Diakoff, G., Arithmometer, 372.
Diamante, Sub-commission of, Stones, 84.
Diamond Glass Co., Glass, 108.
Diamond, J., Spectacles, 331.
Diarbekir, Gov't of, Wheat, 308; Morocco, 311.
Dias, Antonio, Shoes, 288.
Dias, B., Code, 266.
Dias, D., Oils, 252.
Dias, L. F. de, Printing, 266.
Diaz, A., Harness, 279.
Diaz & Acebedo, Preservative, 271.
Diaz, Corrales, Slippers, 276.
Diaz, J., Counterpane, 257.
Diaz, J. C., Instruction, 266.
Diaz, R. A. F., Cotton fabrics, 285.
Diaz Varela, C., Silk, 275.
Diaz y Gomez de Cadiz, E., Manganese, 88.
Dibble, C. F., & Co., Gig, 381.
Dibbs, T. F., Chart, 182.
Dibra Gaza, Rice, 308.
Dick, Dundas, Tasteless medicines, 134.
Dick & Fitzgerald, Books, 328.
Dick & Kirschten, Axles, 206, 383.
Dickes, William, Engraving, 338.
Dickeson, M. W., Relics, 329.

Dickinson, A. S., Shades, 113.
Dickinson & Higham, Bible, 338.
Dickinson, Mrs. C. J., Flowers, 128.
Dickson, J. B., Corals, 250.
Dickson, J., & Co., Woodwork, 226.
Dickson, M., Photographs, 251.
Dickson, W. W., Manganese, 169; Skins, 170.
Dicksons, Ferguson, & Co., Linens, 149.
Didier & Co., Books, 343.
Didisheim, Gabriel, Watches, 355.
Didout, H., Clasps, 198.
Diefenbach, Mr., Judge, Gr. XV., 17.
Diego, Vicente de, Iron ores, 89.
Diena, M. G., Silk, 233.
Dienheim, Brochocki, Disinfector, 194.
Dier & Diets, Skins, 170; Wool, 171.
Diestro y Lastra, Antonio del, Ores, 89.
Dietz-Monnin, Mr., Judge, Gr. X., 17.
Dieutegard, E. & E., Trimmings, 197.
Diez Bros., Sulphurous waters, 91.
Diez Cataluña, S., Tiles, 272.
Diggles, S., Ornithology of Australia, 179.
Dillmann, I., & Fisher, L., Furniture, 208.
Dily, Edoardo, Sulphur, 81.
Di Mauro, Francisco, Cream of tartar, 231.
Dimitri, Boots, 301; Flute, 371.
Dimitri, C., Cotton, 314.
Dimitri, G., Cotton, 314.
Dimitri, Shirting, 295; Inkstand, 304; Wooden dish, 305.
Dimo, Shoes, 301.
Dinaburg Arsenal, Instruments, 373.
Dingeldein Bros., Jewelry, 204.
Diniz, J. B., Artificial teeth, 254.
Diogo, Antonio Manuel, Umbrellas, 288.
Dios de la Quintana, J. de, Wines, 264.
Dip Notutchu, Woolen bridle, 305.
Diptou, N., Belt, 300.
Di Rosalia, A., Shoes, 234.
Di Salvo, S., Essences, etc., 232.
Dishman, J., Kentucky, 12.
Dissoire, N., Instruments, 199.
D'Italo, E. F., Atlas, etc., 346.
Ditson, J. E., & Co., Music, 321.
Ditten, H. S., Pharmacies, 230.
Dixon, A. H., Show cards, 188.
Dixon, C. A., & Co., Cards, 132.
Dixon Crucible Co., Graphite, 54; Paint, 104; Crucibles, 107; Pencils, 129.
Dixon, Frederick, Fuel, 61.
Dixon, Smith, & Co., Fastener, 190.
Dixon, Thos. S., & Sons, Grates, 139.
Djamian, G., Wool, 296.
Djbra Gaza, Cumin, 310.
Djebar Oglou Mustapha, Pottery, 292.
Djemal Ali, Figs, 307.
Djeza Hirli, M., Fan, 303.
Djeziré, Diarbekir, Coal, 97.
Djidé, Government of, Salt, 291; Fan, 303, 310; Spoons, 305.
Djorbaji, Chio, Sulphate, 291.
Djourbachi, A., Cumin, 309; Cotton, 314.
Djourbachi, Nicolas, Madder root, 306.
Djudie, Mehemed, Dates, 367.
Djupafors' Manf'g Co., Pasteboard, 227.
Dobbe, J. P., Painting, 221.
Dobbins, R. J., Contractor, 115.
Dobel, Paul, Ozocerite, 207.
Dobelmann, J. B., Engraved glassware, 108.
Dobson, Jno. & Jas., Carpets, 121.
Dobson, Mrs. L., Banjo, 333.
Docker, F. G. & J. B., Wine, 164.
Dod, S. B., Bust, 336.
Dodd, A. W., & Co., Cod-liver oil, 103.
Doderer, W., Designs, 351.
Dodge, G. C., Alternate, 9.
Dodson & Roberts Man'fg Co., Rattan, 380.
Doerffel, C. G., & Sons, Laces, 204.
Doerr & Sloan, Lacto-phosphate of lime, 101.
Dofat & Co., Acorn cups, 306.
Dognin & Co., Laces, 197.
Dogny, J. B., Balusters, 216.
Dohan, J. F., & Co., Carriage goods, 382.
Dol, Ad., & Co., Linen underwear, 253.
Doland & Scherb, Carriages, 380.
Dolge, A., Felts, 332.
Dolne, Lekeux, & Co., Woolen stuff, 217.
Dolphin Manufacturing Co., Barytes, 71.
Domingo, J., Matches, 283.
Dominguez, Celestino, Oil, 270.
Dominion Organ Co., Organs, 342.
Dominion Suspender Co., Suspenders, 189.
Domisguer, J., Geography, 266.
Domken Bros., Woolen stuff, 217.
Donadis, Count of, Judge, Gr. XXVII., 19.
Donaghy, Michael, Ropes and lines, 160.
Donaldson, J. W., Stamps, 138.
Donaldson, T., U. S. Commissioner, 9.
Donaldson, T. B., Gold in quartz, 70.
Donato, F., Child's suit, 257.
Donel Aghop, Manganese, 97.
Donis, Felipe, Syrup, 262.
Donovan, J. W., Record file covers, 131.
Dons, Henrik, Matches, 229.
Dooley & Bro., Baking powder, 102.
Dopp, Geo., Amethyst, 76.
Dor. U. Free Stone Co., Sandstones, etc., 72.
Doremus, P. C., Sofa bed and lounge, 109.
Dorfel, J., Designs, 351.
Dorlodot, L. de, & Co., Glass, 215.
Dorman Mfg. Co., Baskets, 143.
Dornam, Bros., & Co., Carpets, 122.
Dorner, E., Laces, 209.
Dornon, L., Silk, 196.
Dorsette, T., Dripstone, 173.
Dossetor Brothers, Flour, 183.
Doty, H. H., Burner, 115.
Doucet, E., Writing fluids, 255.
Dougall, J. D., Rifles, 152.
Dougherty, A., Cards, 132.
Dougherty, E. D., Marble, 52.
Douglas Axe Mfg. Co., Axes, 137.
Douglas, B. W. B., Salt, 201.
Douglass, A., Ostrich feathers, 170.
Douglass, David, Lime, 72; Grindstones, 73.
Douglass, Dr., Copper ore, 76.
Douglass Mfg. Co., Tools, 137.
Douglass, W., Slate, 64.
Doulton & Co., Stoves, 146.
Doulton, Hy., & Co., Terra-cotta, 146.
Doulton & Watts, Stoneware, 146.
Doux, E., & Co., Silks, 196.
Dover Fire Brick Co., Clay, 54; Bricks, 107.
Dow, F. N., Maine, 12.
Dowden, G. A., Alarm, 331.
Dowling, Wm., Centre flowers, 162.
Downey, Jno. G., California, 11.
Downey, S. W., Wyoming, 14.
Downs, G., Barley, 180.
Dowson, Sutherland, & Co., Papers, 338.
Dowst, F., Refrigerator, 376.
Doyle Bros., Desk, 321.
Doyle, J. F., Wines, 159
Doyle, W., Ranges, 375.
Drack, J. da S. F., jr., Pharmacies, 283.
Drag Stock Co., Fabrics, 226.
Drake, J. B., Finance, 11.
Drammen Foundry and Mechanical Works, Stoves, 229.
Draper, E., Musical game, 342.
Draper, H., Judge, Gr. XXVII., 19.
Draper, J. W., Coal, 51.
Draper & Sons, Earth closets, 160.
Drawing School of the Board of Trade, Embroideries, 213; Album, 354.
D. R. Barton Tool Co., 137.
Dreer, Smith, & Dreer, Apparatus, 114.
Dreier & Heine, Roots, 251.
Dreka, Louis, Stationery, 130.
Drescher & Kiefer, Jewelry, 204.
Dress Reform Co., Clothing, 125.
Dressel, Cuno, & Otto, Toys, 205.
Dreydoppel, Wm., Borax soap, 103.
Dreyfus, J. G., & Co., Chemicals, 102.
Dreze, H. & J., Woolen stuff, 217.
Dries, L. F., Gymnastics, 360.
Drinker, Henry S., Drawings, 335.
Dripps, I., Heaters, 375.

Drogue & Monnard, Poplins, 195.
Dron, Books, 344.
Droste & Siepermann, Cotton goods, 203.
Drown, W. A., & Co., Umbrellas, 128.
Droz, Juillet, & Co., Poplins, 195; Silks, 196.
Druelle, R., Wines, 192.
Drugulin, W., Type, etc., 347.
Drum Cabinet Manf'g Co., Furniture, 188.
Dryfoos, L., & Co., Felt skirts, 120.
Dubernet, L., Furniture, 112.
Dubois, C., Chemical preparations, 192.
Dubois, G., Boots, 197.
Duboscq, J., Instruments, 345.
Dubourguet, A., Inkstands, 198.
Ducloux, Francisco Javier, Ores, 88.
Ducommun, D., Watch movements, 355.
Ducro & Co., Meat extract, 192.
Ducrocq, P., Books, 343.
Duden Bros., Lace, 217.
Dudgeon, Arthur, Peat, 61; Papers, 152.
Dudley, Dana, Gyroscopes, 127.
Dudley Hosiery Co., Hosiery, 124.
Dudley, P. H., Drawings, 335.
Dudley, T. H., Finance, 10.
Du Faur, E., Timber, 158.
Dufaux, Lutz, & Son, Watch spirals, 355.
Duffus, Mr., Judge, Gr. XVII., 18.
Du Fief, J., Books, 359.
Dufour & Co., Silk bolting cloth, 212.
Dufourmantel, Ph., & Co., Warps, 195.
Dufur, A. J., Alternate, 9.
Dugdale, J. K., Washers, 377.
Dugoujon, J., senior, Saws, 199.
Duhamel, Dr., Iron pyrites, 71.
Dujardin Bros., Hosiery, 217.
Dujeaux, J. B. C., Patents, 359.
Dumaine, J., Books, 343.
Dumas, F., Mrs., Emery paper, 199.
Dumayuga, P., Fabrics, 280.
Dumortier & Cuignet, Cloth, 195.
Dunbar, Geo., Lime and limestone, 72.
Dunbar, Hobart, & Whidden, Tacks, 140.
Dunbar, McMaster, & Co., Linen threads, 149.
Duncan, J. W., Ores, 50; Pig metal, 56.
Duncan, W. A., Washer, 377.
Duncker & Humblot, Books, 347.
Dunckley & McBride, Lines, etc., 163.
Dundas Cotton Mills Co., Cotton fabrics, 188.
Dunglison, R. J., Corn grater, 376.
Dunlap & Co., Hats, 126.
Dunn, E. I., Map, 170.
Dunn, J., & Co., Flour, 167.
Dunn, Robt., & Co., Clay, etc., 61.
Dunod, Books, 343.
Dunraven, Countess of, Embroidery, 151.
Dunton, Jacob & Co., Porous pills, 101.
Duparquet, L. F. & H., Ranges, 376.
Duplan, Harmot, & Co., Furniture, 194; Carpets, 195.
Duployé Bros., Stenography, 343.
Du Pont de Nemours, E. I., Powder, 106.
Dupont, A., Brushes, 198, 200.
Dupont, L., Furniture coverings, 195.
Dupont, P., Books, 343.
Dupuch, B., Fruits, 262.
Dupuch, J., Stone, 66; Trays, 173.
Duquet, C., Watchman detector, 342.
Duran Effendi, Cloth, 295.
Duran, Estéban, Copper, 87.
Durán, J., & Son, Fabrics, 275.
Durand, D., Mirror, 113.
Durand & Huguenin, L., Naphthaline, 212.
Durango, Government of, Iron ores, 86.
Duranti, A., Hats, 234.
Durege, Julio, Views, 92.
Durfee, W. F., Judge, Gr. XXI., 18.
Durham Iron Co., Ores, 49; Flux, etc., 57.
Durham & Wooster, Couplet, 381.
Duric, Madame, Slippers, 301.
Durieu, Oertli, & Co., Milk powder, 213.
Durkman, B., Carpet, 317.
Durner, C. F., Organ, 332.
Durr, Alphonse, Books, 347.
Durrschmidt, Whetstones, 199.
Duryee & Hallett, Furs, 129.
Dutch Ass'n of Industry, 360.
Dutch Ass'n for Soldiers, Books, 361.
Dutch Horticultural & Botanical Association, Pamphlets, 360.
Dutch Railroad Co. Amsterdam, Model, 361.
Dutch Scientific Society, Books, 360.
Dutkevicz, X., Tea pots, etc., 316.
Duval, H. H., Titanic iron ore, 71.
Dwight Manufacturing Co., Shirtings, 118.
Dyerville Mfg. Co., Cotton goods, 117.
Dyott, M. B., Lamps, 114.
Dysart & Co., Coal, 52.
Dziedzinski & Hanusch, Bronze articles, 210.

E.

Eads, J. B., Judge, Gr. XXVI., 19.
Eager, P. B., Tower, & Co., Clothing, 124, 143.
Eagle Furnace, Ores, 49; Iron, 58.
Eagle Lock Co., Trunk locks, 141.
Eagle Pencil Co., Pencils, 130.
Eagle Square Mfg. Co., Squares, 137.
Eames, Prof., Silver veinstone, 70.
Earle, J. E., Connecticut, 11.
Earle, J. S., & Sons, Gilt tables, 112.
Earnshaw, Henry, Photographs, 336.
Eastern Kentucky Railway, Coals, 51.
Easthampton Rubber Thread Co., 142.
Eastman & Brooke, Soap, etc., 103.
Easton Lock Works, Locks, 141.
Eastwood & Co., Cement, 61; Bricks, 146.
Eavenson, Jones, & Sons, Soaps, etc., 103.
Eberhardt, Carl, Flowers, 207.
Eberhardt, F., Baskets, 380.
Ebermann, A., Urethrotome, 319.
Ebou Raguel Ana, Table, 292.
Ebouker, C., Skin, 311.
Eche, J. D., & Son, Oil cloths, 229.
Echef Effendi, Morocco, 311.
Echevarria, Cecillo, Minerals, 84; Cotton, 256.
Echuca, Council of, Photographs, 162.
Eckel, H., Iron, 378.
Ecker, Alexander, Colors, 207.
Eckstein Bros., Gloves, 218.
Eckstein & Kahn, Table cloths, 203.
Ecole du Plateau, College work, 342.
Económica de Múrcia, Silk, 275.
Economical Survey of Sweden, Maps, 363.
Eddy, G. M., & Co., Saws, 137; Tapes, 330.
Eddy's, J., Sons, Woolens, 120.
Edeline, A. J., Stones, 199.
Edgar Thomson Steel Co., Steel rails, 56.
Edge & Sons, Wire ropes, etc., 62.
Edgerly, M. V. B., Alternate, 9.
Edgerton, N. H., Instruments, 331.
Edgett, W., Iron ochre, 188.
Edgren, Julius, Paper, 227.
Edile Factory, Cotton, 294.
Edison, T. A., Telegraph, 331.
Edoux, L., Plan, 345.
Edsall, D. A., Hand stamps, etc., 131.
Education, Board of, Map, 174.
Education, Dept. of, Photographs, 250.
Education of the Poor Society, Reports, 357.
Educational Union, Books, 359.
Edwards, G., Sashes, 148.
Edwards, G. W., Gum, etc., 182.
Edwards, J., China, 147.
Edwards, J., & Son, White ware, 146.
Edwards, M., Alternate, 9.
Effendi, I., Ribbon, 290.
Eflimitaki, Giorgui, Oil, 291.
Egan, J., Guns, 190.
Egger, I. B., Veneer, 211.
Eggins, J., Maize, 158.
Eggler, Jakob, Wood carvings, 358.
Eggler, Johann, Wood carvings, 358.
Egli, F., Wine, 164.
Egli & Sennhauser, Silk bolting cloth, 212.
Eguiazu, L., Iron, 277.
Egypt, National Museum of, Various exhibits, 236, 237, 238.

Egyptian Silk Growing Co., Yarns, 287.
Ehret, M., jr., Roofing, 115.
Eich & Co., Braids, 213.
Eichmann & Co., Paper, 210.
Eichner, G. L., & Son, Toys, 205.
Eichorn, G., Wines, 240.
Eiermann & Tabor, Chemicals, 202.
Eisel, M., Piano movement, 332.
Eisenfuhr, Wilh., Tools, 206.
Eisenmann, E., Support, 377.
Ek, J. A., Equipments, 206.
Ekegrén, Hr., Chronometers, 355.
Ekman, C., Ores, 78; Iron, 79; Guns, 227.
Elaghin, C., Castings, 319.
Elastic Truss Co., Trusses, 135.
Eldarts, T. E., Arrowroot, 251.
Elder, W. & N. G., Wools, 165.
Eldon, Mrs. J., Orange tree, 173.
Eldridge, G. M., Stove damper, 114.
Elementary Education Society, 344.
Elevin, M., Harness, 383.
Elcy Bros., Percussion caps, 152.
Elfving, C. E., Apparatus, 226.
Elgin National Watch Co., Tools, 136; Watch movements, 330.
Eliaers, A. E., Seats, 194; Chairs, 199.
Elias, D. & C., Cotton, 264.
Elias Hatti, Satins, 298.
Elias, J., Napkins, 220.
Eliott, G., & Ferreira Castello, J. H., Ores, 94.
Eliott, George, Ores, 94.
Elkins, Stephen B., Alternate, 9; New Mexico, 13.
Elkins, W. L., Oils, 103.
Elkinston & Co., Plate, 148.
El Labrador Factory, Cottons, 265.
Ellbo Götoberg Match Factory, Matches, 225.
Elli, L., Seats, 233.
Ellin, Robert, & Co., Eagle lecturn, 112.
Elliot, J. W., Stoves, 188.
Elliott, T. C., Washing machine, 188.
Ellis, C. J., Judge, Gr. IX., 16.
Ellis, Knapp, & Co., Umbrellas, 128.
Ellis Manufacturing Co., Supporters, 125.
Ellis, Theo. G., Engineering exhibit, 335.
Ellissi, Madame, Laces, 302.
Ellstätter & Urbino, Gloves, 204.
Elmira Nobles' Mfg. Co., Tools, 137.
Eloffe & Co., Books, 343.
Elordi, Louis, Copper ore, 84.
El Porvenir Mining Society, Tin, 92.
Elrick, C. G., Combs, 151.
Elson, J., Regulators, 330.
Elvadji, Y., Vest, 300.
El Veterano Mineral Society, Coal, 89.
Emaré, Gov. of, Saucer, 303.
Emaus Iron Co., Iron ore, 49; Flux, etc., 57.
Emerald Hill, Borough of, Photographs, 162.
Emerson Piano Co., Pianos, 333.
Emery, C. E., Judge, Gr. XX., 18.
Emery, Chas. E., Drawings, 335.
Emilianoff & Rochefort, Silks, 317.
Emin, A., Wheat, 308.
Emina, Madame, Handkerchief, 303.
Eminé, Tissue, 298; Shirt, 300.
Eminé, K., Shirting, 294.
Emma, Queen, Hats, 250; Implements, 251.
Emmanuele, Francesco, Cream of tartar, 231.
Empey, M. P., Judge, Gr. X., 17.
Empire China Works, Porcelain, etc., 107.
Empire City Watch Co., Watches, 330.
Empire Iron Works, Iron, 59.
Emsley, R., Lime and limestone, 72.
Emzia, I. N., Gauze, 299.
Encarnacion Company, Iron, 86.
Enderitch, H., Wheat, 180.
Enders, J., & Co., Buggy, 381.
End Ulmi Ali, Under garments, 213.
Engelbrecht, C., Skates, 223.
Engelhorn, I., Books, 347.
Engelmuller, F., Gloves, 208.
Engert, A. C., & Co., Frames, 148.
Engert & Rolfe, Felts, 148.
Engineers, School of, Minerals, 86.
Englemann, W., Books, 347.
English, Ch., Blackboard, 342.
English Heirs of Juan Carlos, Galena, 88.
English, J., & Co., Needles, 151.
Engström, Joh., Razors, 227.
Enological & Agrarian Society of Acireale, Essences, 232.
Enriguez, A. G. de, Embroidery, 258.
Enrique, Clasen, & Co., Cigars, 262.
Ensenada, Justice of Peace, Sarsaparilla, 259.
Enthoven, H. S., Kitchen utensils, 221.
Entomological Society, Reports, etc., 359.
Entz, H., Range, 194.
Epstein, J., Paper, 318.
Erassier, Laces, 197.
Erckens & Co., Cotton and mixed goods, 203.
Erckens', J., Sons, Cloths, 203.
Ercklentz, Max, & Co., Mixed fabrics, 203.
Ercklenz & Reuter, Mixed fabrics, 203.
Erdman, E., Diagrams, 362; Maps, etc., 363.
Erdman-Schmidt, J. D., Plates, 221.
Ereilli, C., Lignite, 97.
Ereutznach, E., Hosiery, 204.
Erezena, Government of, Bark, 306.
Ergain, Diarbekir, Copper ore, 97.
Erhard, Maps, 345.
Erhard & Sons, Jewelry, 204.
Eriksen, C., Honey, 224.
Eriksson, G., Doors, 226.
Erlbeck, A., Laces, 209.
Ernst & Elterich, Tools, 137.
Ernst, Ferdinand, Woolen goods, 212.
Ernst, Heinrich, Plans, 357.
Ernst & Korn, Plates, 347.
Errazuriz, M., Strata of coal mine, 85.
Ersindjan, Government of, Mineral water, 97.
Ervin, D. S., Limestone, 54.
Erwin, H., & Co., Paint, 105.
Erza, Y., Skirt, 300.
Erzeroum, Gov't of, Soap, 291; Wool, 295; Pitch, 306; Wheat, 308; Morocco, 311.
Esberard, F. A. M., Vases, 252.
Escaler, B., Dress cutting, 276.
Escales & Hatry, Silk plushes, 204.
Escandon, Pedro, Instruction in fine arts, 267.
Escarpizo, Lorenzana Augusto, Elixir, 270.
Eschebach & Schaefer, Lithographs, 347.
Escheverria, J. R., Wax, 262.
Escobar, E., Gold, 85.
Escobar, J. D., Woodenware, 256.
Escobar, J. de D., Waters, 85; Salt, 255; Harness, 260.
Escobedo, Grai, Coffee, 268.
Escobedo, M., Indian goods, 266.
Escoffier, G. G., Mechanical goods, 235.
Escrich, P., Peanut oil, 255.
Escudero, P., Bricks, 272.
Escudero, R., Stone, 85; Tiles, 261.
Esiné, Government of, Gall nuts, 307.
Eskilstuna Iron Manufacturing Co., Hinges, etc., 227.
Esmarch, F., Bandages, 205.
Esmé, A., Sheeting, 294.
Esmoriz, M., Soaps, 283.
Espahi, Pestle, 293.
"España Industrial," Fabrics, 273.
Espeja, Corp. of, Marbles, 90.
Espent, W. B., Cigars, 172.
Esperon, José, Iron, 86.
Espineyro, M. T., Periodical, 368.
Esptein, Isidoro, Books, 267.
Esseid Effendi, Wheat, 308.
Essen, Baron H. H. von, Woodwork, 226.
Essers, M., Cotton and mixed goods, 203.
Estate of the Khedive, Samples, 238.
Estéban, Cristóbal, Brimstone, 89.
Esterbrook Steel Pen Co., Pens, 130.
Estes, E. B., & Son, Smalts, 105.
Estes & Lauriat, Books, 326.
Esteves, F. R., Hat, 281.
Estevez, M. B., Slates, 90.
Estey, J., & Co., Organs, 332.
Estivill, A., Water, 271.
Estruch, A., & Co., Manure, 270.

Estur Oglou Estur, Cocoons, 314.
Etchevehére, J., Flowers, 258.
Etcheveherre, G., Embroidery, 258.
Etlép, Gov. of, Cotton, 313.
Etna Furnace, Ore, 48; Pig iron, etc., 57.
Etsenberger, R. Z., Coffee filter, 148.
Etur, A. F., Cotton prints, 285.
Euler, A. A., Flutes, etc., 340.
Eureka Manufacturing Co., Pistols, 129.
Eureka Mining Co., Silver ores, 70.
Evangelic Missionary Ass'n, Report, 357.
Evans, C. B., Mantels, 115.
Evans, D. S., Needles, 151.
Evans, E., U. S. Commissioner, 9.
Evans, Ellen, Basket, 173.
Evans, F. H., Bolts, 142.
Evans, H., Wine, 164.
Evans, Oscar C., Blinds, 188.
Evans' Rifle Mfg. Co., Rifles, etc., 133.
Evans, Sons, & Co., Perfume, 145; Drugs, 153.
Evans, W. D., & Co., Razor strops, 139.
Evanson, Jones, & Sons, Laundry soap, 103.
Evansville Cotton Mfg. Co., Drills, 116.
Everaert, Julie, & Sisters, Lace, 217.
Everaert-Leclercq, J., Lace, 217.
Everaert Sisters, Lace, 217.
Everett, B. C., Trusses, 135.
Everett Mills, Fancy cottons, 118.
Everitt, Elisha E., Furniture, 109.
Everling, Carl, & Co., Mixed fabrics, 203.
Ewart, William, & Sons, Linen fabrics, 149.
Ewing & Co., Mirrors, 188.
Excelsior Coal Mining Co., Coal, 51.
Excelsior Flint Glass Co., Glass reflectors, 109.
Excelsior School Furniture Mfg. Co., 321.
Extremoz Marble Quarrying Co., Marbles, 95.
Eyhon & Lloyd, Roughing rolls, 56.
Eyoup, O., Skins, 311.
Eyries, A., Soda, 271.
Ezerski, E., Apparatus, 372.
Ezinchan, Gov't of, Calicoes, 294; Belt, 300.

F.

Faas, A., Pianos, 332.
Faber, A. W., Water colors, 205.
Faber, Eberhard, Lead pencils, 130.
Fablet, B., Preserved blood, 255.
Fabra, C., Rods, 273.
Fagersta Iron & Steel Works, Iron ores, 78; Saws, 227.
Fagersta Stock Co., Iron, 78.
Fagioli, G., Boxes, 234.
Fairbank, Hawes, & Co., Doors, etc., 188.
Fairbanks, A. G., Roofing, 378.
Faivre, Toys, 198.
Fakari, Nigella, 304.
Faladji Imssi, M., Thread, 295.
Falck, J. A. H., Peaches, 170.
Falck-Yster, Snow shoes, 229; Sledge, 230.
Falcon, Ruiz, & Llorente, Oil, 271.
Falkenberg, Johs., Linen, 229.
Fall River Bleachery, Shirtings, etc., 117.
Fall River Merino Co., Underwear, 123.
Faller, Geo. J., Oils, 103.
Fallon, J. T., Wines, 158.
Falls Co., Duck tickings, 117.
Falstrom & Tomqvist, Cornice, 143.
Fanfarrao, J., Earthenware, 284.
Farch, J., & Sons, Alcohol, 224.
Farcot, E., Clocks, 344.
Farcy & Oppenheim, Corsets, 196.
Faria, J. B. da, Artificial teeth, 254.
Farina Crockery Society, Crockery, 233.
Farina, F. Maria, Eau de Cologne, 202.
Farina, J. M., Eau de Cologne, 202.
Farmer & Rogers, Shawls, 150.
Farniola, M. Paolo, Olive oil, 231.
Farnum, J., & Co., Tickings, 115.
Farquhar & Booth, Building sandstone, 72.
Farquhar, E. & C., Lime and limestone, 72.
Farr Alpaca Co., Alpacas, 121.
Farrar, G. H. & L. E., Clay, 73.
Farrel & Co., Safes, 112.
Farrington & Kinsey, Wool, 122.
Farriols & Sons, Silk, 275.
Farris, A., & Co., Glassware, 272.
Farrugia, Federico, Minerals, 86.
Farsky, J. F., Instruments, 351.
Farson, E. S., & Co., Refrigerators, 376.
Farwell Mills, Cottons, 116.
Fase, L., Lime, 53.
Faser, C., Mirrors, 113.
Fasmer, I. H., & Son, Feldspar, 80.
Fasoldt, C., Clock, 330.
Fatma Eminé, Napkins, 302.
Fatma, Madame, Linen, 295; Hose, etc., 300.
Fauchere, A. L., & Co., Mantel, 52.
Fauth, C., & Co., Instruments, 329.
Fauvety & De Ville Massot, Bricks, 256.
Fava, A., Furniture, 233.
Favare, Marchese della, Olive oil, 232.
Favier, A., Flowers, 198.
Favre Bros., Watches, 355.
Faxon, E., & Co., Extract, 143.
Faxon, W., Judge, Gr. XIII., 17.
Faxon & Wright, Samples of wool, 337.
Fay, C. J., Carpeting, 120.
Fay, de, Plans, 345.
Faye & Thevenin, Silks, 196.
Fayett & Battcher, Pantaloons, 253.
Fazio, D., Olive oil, 232.
Feced, J., Fabrics, 281.
Federal Gov't, Mexico, Books, 267.
Federal Polytechnical School, Report, 354.
Federal Statistical Office, Books, 354.
Federal Topographical Bureau, Maps, 356.
Fedoroff, J., Tureens, 319; Hampers, 320.
Feefik, Mamor, Cherries, 307.
Feetham, Mark, & Co., Stoves, 148.
Fegan, Wax, 172.
Fehr, J., Compound talcum, powder, etc., 134.
Feil, C., Instruments, 345.
Feizoulah, Perfumery, 292.
Felge, P., Jewelry, 204.
Fellner, F., & Hermann Helmer, Models, 351.
Felsing, C., Castings, 206; Regulators, 349.
Felton, Rau, & Sibley, Varnishes, 104.
Felton, S. M., Finance, 10.
Female Workshop of Educ'l Appliances, 372.
Fenerty, E. L., & Co., Skates, 190.
Fenneysey, C. D., Photographs, 170.
Fenoult & Co., Books, 372.
Fenton, Connor, & Co., White linens, 149.
Fenton, J., Buttons, 151.
Fenton, J. H., & Bro., Hats, 126.
Fenwick & Scott, Wool, 180.
Ferguson Bros., Satteens, 149.
Ferguson, T. B., Judge, Gr. V., 16.
Ferguson & Urie, Stained glass, 160.
Fergusson & Co., Silks, 241, 242; Hemp, 243.
Feriyé, Madame, Lace, 302.
Ferlund, E. F., Clothing, 226.
Fernandes, Manuel, Cloth, 286.
Fernandez Castañeda, T., Lignite, 89; Glass, tiles, 272.
Fernandez Bros. & Co., Mats, 273.
Fernandez, Diego, Galena, 87.
Fernandez, Francisco, Asphaltum, 89.
Fernandez, Gertrude, Embroidery, 265.
Fernandez, Gervasio, Gypsum, 90.
Fernandez, J., Earthenware, 272.
Fernandez, Laza M., & Sons, Manta, 275.
Fernandez & Toscano, Shoe patterns, 276.
Ferniani, Count A., Crockery, 233.
Ferrad, K., Cases, 303.
Ferrad, O., Tumblers, 292; Office furniture, 304.
Ferrari, Giuseppe, Cabinet, 109.
Ferraz, J. L. M., Pharmacies, 283; Book, 369.
Ferrazas, J. J., Arithmetic, 266.
Ferré's, General, Widow, Embroidery, 258.
Ferreira da Silva, A., & Co., Soaps, 283.
Ferreira, D. F., Diamonds, 82.
Ferreira, J. J., Toweling, 285.
Ferreira, Joanna E., Hats, 287.
Ferreira, José Bento, Boots, 287.

Ferreira, L. G., Canes, 254.
Ferreira, M. J., & da Silva, Hardware, 289.
Ferreira, M. S., Sieves, 284.
Ferreira & Souza, Gold leaf, 95.
Ferrer & Battle, Chemical preparations, 270.
Ferrer & Co., Silk goods, 275.
Ferrer, E., Flowers, 259.
Ferrer, Ignacio, Chocolate, 268.
Ferrer & Roca, Paper, 278.
Ferrer & Son, Paper, 277.
Ferrer, V., Medicinal herbs, 259.
Ferrer y Vidal, J., Cretons, etc., 273.
Ferres, J., Reports, 341.
Ferri, F., Tables, 353.
Ferrino, C., Nitrate, 231; Sand paper, 235.
Ferris, G. H., Domestic boiler, 376.
Ferrouch, M., Slippers, 301.
Ferslew, C., & Co., Register for cars, lithographs, 224.
Ferssouz, A., Wheat, 308.
Ferstel, H. R. von, Designs, 351.
Feser, P., Clocks, 349.
Feti, M., Pipe stems, 303.
Fetou, A., Beans, 309.
Feu, P., Medals, 279.
Feu, P., & Sons, Buttons, crosses, 277.
Feuchtwanger, L., & Co., Chemicals, 101.
Feulgchete, Gov. of, Skin, 311; Cotton, 313.
Feuntes & Ponte, Part of coach, 279.
Feurheerd, F. D., & Cruickshank, W., Ores, 94.
Feust & Rice, Cabinet ware, 112; Toys, 128.
Fevfik, E., Woolen yarn, 296.
Fezli Ogli Samy, Soaps, 291.
Fialho & Bro., Mineral waters, 95.
Fialkowski Bros. & Twerdy, Writing paper, 210.
Fialont, Mrs., Tapes, 344.
Fiddeman, H. B., Delaware, 12.
Field, A., & Sons, Buttons, 128; Nails, 142.
Field & Aydon Patent Smelting Co., Iron, 74.
Field, F. K., Blue stone, 52; Tiles, 107.
Field-Haviland, Ch., China, 193, 194.
Field, J. C. & J., Candles, 144; Lights, 148.
Field, J. C. & J. F., Gloves, 126.
Field, W. W., Wisconsin, 14.
Fierz, Henri, Cotton goods, 212.
Fifield, J. B. M., Magic bed sofa, 111.
Figatner, Enrico, Batteries, 365.
Figueiredo, J., Pharmacies, 283.
Figueredo & Co., Army boots, etc., 253.
Figueredo, D. J., Argil, 82.
Figueroa, Ignacio, Galena, 88; Lead, 92.
Filimonoff, A., Caps, 317.
Filopanti, Dr. Prof. Quirico, Book, 365.
Finance, Ministry of, Instruments, 361.
Finch, Pruyn, & Co., Marble, 52.
Finger, Hare, & Co., Annunciator, 331.
Fink, H., Cinchona, 266.
Fink, M., Skins, 163.
Finkheim, W., Teeth, 319.
Finland, Adm'n of Mines, Reports, 99.
Finlayson, T. A., Asphalt, 184.
Finnegan, J. H., Building stone, 54.
Finnigan, M., Buena Vista stone, 52, 54.
Fiolet, L., Pipes, 193.
Fireland Historical Society, Pottery, 328.
Fireproof Building Co., Bricks, etc., 54.
Firmin Didot & Co., Books, 343.
First Ordinary Civil Social Union, 352.
Fisch Bros., Embroideries, 213.
Fischer, August, Wines, 164.
Fischer & Co., Tables, 250.
Fischer, F., Hats, etc., 253.
Fischer, J. G., Toys, 205.
Fischer, Samuel, China, 207.
Fischer & Schmitt, Chemicals, 201.
Fischer, T., Maps, 347.
Fish, W., & Co., Stone, 52.
Fishblatt, Lewis, Furs, 129.
Fisher & Bird, Mantels, 52, 115.
Fisher, Concrete, 172.
Fisher, C. B., Wool, 180.
Fisher, H., Swing, 114.
Fisher, Leather, 172.
Fisher, T. S., Shirts, 189; Yarns, 189.
Fisher, W., Tripoli, 73.
Fisse, T., & Co., Clasps, 194.
Fitch, E. A., Coal, 52.
Fitts, C., & Son, Oil, 160; Glue, 163.
Fix, A. J., Nails, etc., 218.
Fjeldskov, V., Carving, 224.
Flagstone Creek, Coal, 67.
Flamant, Mrs. C., Snuff, flour, 184.
Flattich, W. & W. F., Models, 351.
Flauraud & Son, Laces, 197.
Flechoso, G., Key, 279.
Fleischel, E., Judge, Gr. XXIV., 18.
Fleischer, E., Books, 347.
Fleischman, Fritz, Piguet, & Co., Steel, 355.
Fleisher, S. B. & M., Alpaca braids, 123.
Fleming, F. N. & J. S., Minerals, 47.
Fleming & Talbot, Instruments, 331.
Flemming, Carl, Maps, 347.
Fletcher, H. L., Arkansas, 11.
Fletcher, R., & Son, Papers, 152.
Flinsch Type Foundry, Printing, 347.
Flint Mills, Printing cloths, 118.
Flor Carenou & Tur, Liquorice, 271.
Florand, J., Shirts, 317.
Flore, Mauricienne, Vanilla, 178.
Floreffe Co., Mirrors, 193; Glass, 215.
Florence, Agrarian Committee of, Oil, 232.
Florence, Director of the Anatomical & Pathological Museum of, Preparations, 365.
Florence Mfg. Co., Mirrors, 113; Brushes, 142.
Florence Sewing Machine Co., Skates, 139; Stoves, 375.
Florenz, J., Scales, 351.
Flores, S., Saya fabric, 281.
Flück, J., Wood carvings, 358.
Fluminense Agricultural Inst., Hats, 254.
Flyin, A., Maps, 373.
Focké & Son, Pianos, 345.
Fodolali, N. A., Barley, 308.
Foering, Geo. W., Ochres, 105.
Foerster & Kraenter, Tools, 137.
Fogt, Pictures, 318.
Fokat, Government of, Seed, 307.
Foley, James, Magnetite, 71.
Foley, John, Gold pens, 130.
Foliatis, Joseph, Soap, 291.
Follett, O. S., Chemicals, 102.
Folsa, M. José, Quicksilver ores, 86.
Folwell, W. W., Alternate, 9.
Fominsky, B., Boots, 317.
Fondu, J. B., Locksmiths' work, 218.
Fonseca, Manuel da Motta, Serges, 287.
Font, Chambeyron, & Benoit, Velvets, 196.
Fontaine, J., Windows, 188.
Fontana Brothers, Flagstones, 81.
Fontein, R., Tiles, 220.
Fontes, V., Medicinal herbs, 259.
Fontes, V. M., & Negra, S., Clay, 85.
Fonteyn Bros., Silk goods, 217.
Fonzo, Domenico, Cream of tartar, 231.
Foote, A., Ores, 67.
Foote, A. E., Minerals, 47.
Foote, H., Wines, 168.
Forbes, R. W., Gum, 156.
Force, W. F., Implements, 328.
Ford Bros., Pith hats, 161.
Ford, F. G., Pails, etc., 376.
Ford, O. D., Stone, 53.
Ford, W. A., Fastener, 378.
Ford Works Co., Maize, 152.
Forehand & Wadsworth, Fire arms, 133.
Forest City Stone Co., Stone flagging, 52.
Forests & Streams, Dep't of, Plans, 356.
Forge & Rolling Mill Co., Iron, 77.
Formiga, District of, Argil, 82.
Formiguera, G., Syrups, 270.
Fornara, Gio, & Co., Wire, 81.
Fornari, A. G. B., Paper, 234.
Fornasari, R., & Facino, H., Cement, 84.
Forner Sales, Domingo, Flower water, 270.
Fornitcheff, A., Silk, 317.
Forsell, D., & Co., Furs, 226.

Forster, E. R. von, Designs, 351.
Forster, S. R., & Son, Tacks, 190.
Forsyth, J., & Sons, Leather, 158.
Forsyth, Robt., Red granite monument, 72.
Forte, E., Silver work, 234.
Fortenbach & Sons, Cases, 330.
Fortin Bros., Felts, 195, 200, 345.
Fortuny Bros., Oil, 270.
Foruch, A., Jewelry, 197.
Forzano Bros., Sideboard, 272.
Fosher, J., Wyoming, 14.
Foshick, E., Clay, 73.
Foster Coal Co., Coal, 51.
Foster, J. A., Limbs, 136.
Foster, S. R., & Son, Fire-proof shutters, 188.
Foster, W. A., Clay, 73.
Foster, Wilbur F., Model, 335.
Foubert, A., Dyes, 193.
Foucaud, Mme. Vve., Slippers, 178.
Fouchet, sr. & jr., & Hulme, Cloth, 195.
Fouet, Mrs., Underwear, 196.
Fountain, John G. B., Iron ore, 64.
Fourcault-Frison, A., & Co., Glass, 215.
Fouret, R., Judge, Gr. XXVIII., 19.
Fournier, Dondel, & Co., Bronze, 199.
Fournier, J., Cream of tartar, 192.
Fournier, S., Clock, 382.
Foustdale Manf'g Co., Cottons, 116.
Fow Loong, Porcelain, furniture, 241.
Fowler, Charles E., Plans, 334.
Fowler Fly Fan Co., Fan, 129.
Fox, Plans, etc., 367.
Fox, D. M., Finance, 10.
Fox, H. C., & Sons, Glassware, 108.
Fox, Henry, & Co., Cassimeres, 120.
Foy & Harmon, Skirt-supporting corset, 125.
Fraenkel, W., Designs, 351.
Fraga, J., Clogs, 276.
Fragueiro, José M., Lead, 83.
Fraley, F., Sec'y & Treas. Board Finance, 11.
Fraley, G. W., & Co., Coach, 381.
Fralick, H., Michigan, 13.
Frame, P., Delaware, 12.
Franaszek, T., Paper, 319.
Francati & Santamaria, Brooches, 151; Jewelry, 234.
France, James, Wyoming, 14.
Frances Bros., Tulle, 197.
Francillon, Ernest, & Co., Watches, 355.
Francis, C., Wines, 164.
Francis & Co., Cements, 61.
Francis & Loutrel, Inks, 105; Manifold writers, 131.
Francis, T., & Co., Nails, 153.
Franck Bros., Woolen stuff, 217.
Franco, L. A., Cloak, 257.
Franco, P. A., Pharmacies, 283.
Frank, J., Bronze ware, 210.
Frank, Louis, Silk, 122.
Franke, Carl, Chemists' fixtures, 207.
Frankfield, Louis, & Co., Chronographs, 355.
Frankl, J. G. & L., Wood, 211.
Frankl, L. A., Models, plans, 352.
Franklin Coal Company, Coal, 52.
Franklin Manufacturing Co., Cottons, 118.
Franklin, Mrs. E. P., Stencils, 138.
Franklin, W. B., Judge, Gr. XXVI., 19.
Franzheim, G. W., West Virginia, 14.
Franzi Bros., Silk, 233.
Fraola, J., Bottles, 277.
Fraser, J. W., Coal, 71.
Fraternal Association of Weavers & Correlative Trades, Yarns, 285.
Frazer Lubricator Co., Axle grease, 103.
Frebitsch, S., & Son, Silk articles, 208.
Fredriksvorn Rope Manufactory, 230.
Free, A., Wheat, 180.
Free, Geo., Wheat, 180.
Free School for Apprentices, Report, 353.
Freeman, L. R., Ornaments, 329.
Frees, C. A., Artificial limbs, 136.
Freire, O., Essences, 252.
Freischlag, F., Harness, 254.
Freitas, Albino José, Mineral waters, 95.
Freitas, F. G. de, Writing paper, 289.
Freitas, T. Teixeira de, Lime, 82.
Freixa, S., Silk, 275.
Freixa & Son, Gaiters, 276.
Freixo, Viscount de, Ore, 94.
Frenais, Armand, Forks, 194.
Frenay Bros., Hats, 217.
French, C., Australian longicorns, 163.
French & Co., Black crepe, 150.
French, Julia B., Cabinet, 112.
French, O. C., U. S. Commissioner, 9.
French Orphan Asylum, Report, 357.
French Paper Ware Co., Pails, 380.
Frenkel, J. K., & Son, Paper, 318.
Frères de la Charité, Books, 342.
Frese, A., Gloves, 209.
Fresson, W., Drugs, 175.
Frey-Feer, J., & Co., Satins, 212.
Frezon, sr., & Leclerc, sr., Cloth, 195.
Fricke, A., Perfumery, 106.
Friderichs, R. L., Publications, 347.
Friedeck Reformatory Home, Work, 357.
Friedman & Lanterjing, Razors, 139.
Friedmann, A., Models, 351.
Friedrich, H. O., Tin-plated ware, 202.
Friedrich, O. B., Furniture, 202.
Friedrichshall Springs, Bitter water, 75.
Friends of the Country, Society of, Cloth, 275
Fries, Alex., & Bros., Chemicals, etc., 101.
Fries, Hermann, Books, 347.
Fries, Th. M., Herbarium, 362.
Friese, C., Statuary, 107.
Friestedt, A. W., Chemicals, 225.
Frith & Murphy, Salt, 171.
Fritsch, Ferdinand, Perfumes, 207.
Fritsch, J., Laces, 209.
Fritz, J., Terra-cotta, 106.
Fritz, John, Judge, Gr. I., 15.
Fritzsch, Schimmel, & Co., Oils, etc., 105.
Fritzsche, G., Books, 347.
Fritzsche & Zschiesche, Lithographs, 347.
Frizzoni, A. F., Silk, 233.
Froc, R., Altars, 194.
Frodsham, Charles, & Co., Watches, 339.
Frohock, W., Spokes, 380.
Frolich, F. H., & Son, Paper hangings, 230.
Frolich & Son, Apatite ores, 80.
Fromage, Lucien, & Co., Braces, etc., 196; Elastic fabrics, 200.
Froment-Meurice, Goldsmiths' ware, 199.
Fromherz, Jos., Inks, 104.
Frost, Geo., & Co., Corsets, 125.
Frost & Hanline, Thermostat, 232.
Fry's Bookbinders' Stamp and Tool Manufactory, Stamps and tools, 137.
Fryar & Strachan, Sugar, 180.
Fuchs, A., Wines, 164.
Fuchs, D., Instruments, 351.
Fuchs, F., Polished stones, 204.
Fuchs, G. L., & Sons, Metal, 201.
Fuchs, J. B., Penmanship, 351.
Fuente Heridos, Corporation of, Marble, 90.
Fuentes, A., & Bros., Palm leaf, 273.
Fuentes de Ebro, Corp. of, Alabaster, 90.
Fuentes, M., Cloth, 275.
Fuentes, Miss L., Embroidery, 265.
Fuentes & Ponte, Vases, 272; Sandals, 277.
Fuentes & Sons, Blister, 270.
Fuji-Kawa, G., Cloth, 246.
Fujisawa, H., Trays, 245.
Fukami, Suminosuke, Porcelain, 249.
Fukihara, S., Enamel, 244; Plates, 249.
Fukuda, K., Pictures, 247.
Fukushima Riuho, Picture, 248.
Fulladosa & Co., Cards, 278.
Fuller, A., Ale, 164.
Fulton, C. A., Gypsum, 73.
Fulton Furnace, Iron ores, 48; Iron, 58.
Funaki, S., Toys, 247.
Funke, Leopold, Knife, 139.
Furnas, R. W., Alternate, 9.
Furne, Jouvet, & Co., Atlas, etc., 345.
Furse Bros. & Co., Earth, 81.
Furstenau, O., Lithographs, 347.

Fusnot, Chas., & Co., Cartridges, 218.
Fuster, F., Oil, 271.
Fyler, E. W., Bedstead, 111.
Fynje, J. G. W., Judge, Gr. XXVI., 19.

G.

Gabler Bros., Jewelry, 204.
Gabran, R., Arithmetic, 266.
Gabriel, H., & Sons, Quilts, 116; Hosiery, 125.
Gabriel, P. J., Ornaments, 328.
Gabriel, S., Towels, 295.
Gache, Manuel, Gypsum, 84; Té pampa, 259.
Gadamer & Jaeger, Matches, 202.
Gadpaille, Charles, Rum, 172.
Gaertner, E., Plans, 351.
Gaffré & Caen, Pens, 198.
Gagel, Lorenz, Basket goods, 206.
Gaillard, J., sr. & jr., Laces, 197.
Gainza, Maitin de, Gold, 85.
Galapé, J. M. L., Model, 261.
Galaroza, Corporation of, Marbles, 90.
Galarraga, E. G. de, Crystal rock, 83.
Galbraith, Alex., Flowers, 127.
Gale & Co., Tents, 117.
Gale, D. A. T., Mattress, 111.
Galeano, S., Blinds, 256.
Galena Oil Works, Oil, 103; Baskets, 127; Clock, 330.
Galiano, M. d' A., Pharmacies, 283.
Galiano, Manuel da, Cigarette paper, 289.
Galindez, Clasico, Ores, 83.
Galindo, R., Hats, 276.
Gallais, A., Furniture, 194; Nails, 200.
Gallardo Bastant, L., Apparatus, 272.
Gallego, T., Hat, 281.
Galli, C., Olive oil, 232.
Gallia Furnace, Ores, 49; Iron, 59.
Gallinos, R., Sponges, 310.
Gallo, A. M., Wax, 262.
Gallo, Wine, 262.
Galloway & Graff, Terra-cotta, 106.
Galoppe & Tragin, Laces, 197.
Galton, D., Judge, Gr. XVIII., 18.
Galvan, Federico, Coal, 84.
Galvano-Faradic Mfg. Co., Instruments, 331.
Galway Lead Mining Co., Barytes, 71.
Galzy, E., Insect products, 192.
Gama, M., Geometry, 266.
Gamboa y Calvo, José, Salt, 270.
Gambrill, Sons, & Co., Cotton duck, 116.
Gamewell, J. N., Boxes, 331.
Gamez, Angel, Rock, 90.
Gandara, A. de la, Judge, Gr. VIII., 16.
Gandencio, José, Toothpicks, 288.
Ganeshin, W. & N., Bros., & Co., Yarns, 317.
Gans & Leonhardt, Chemicals, 201.
Ganthier, O., Titanic iron ore, 71.
Gantz, G. F., & Co., Baking powder, 101.
Ganz, J., Photographs, 353, 358.
Garabet, T., Calico, 294.
Garatoéla, A., Soap, 292.
Garau, S., Extracts, 235.
Garceix, Prof., Map, 367.
Garces, Vicente, Soap, 263.
Garcia, A. Antonio, & Co., Cloths, 274.
Garcia, Antonio, History, 267.
Garcia, Aranda, & Co., Cloaks, 276.
Garcia, B., Cable, 273.
Garcia, C., Picture, 277; Fabrics, 280; Purses, 281.
Garcia, Cayetano, Marbles, 90.
Garcia de los Rios, Pit coal, 89.
Garcia, F., Chairs, 265.
Garcia, Gabriel, Ferruginous water, 91.
Garcia & Garcia, Embroidery, 276; Flowers, 277.
Garcia, Hilario, Skins, 268.
Garcia, M., Cloth, 275.
Garcia, M. F., Teeth, 278.
Garcia, Martin, Paper, 278.
Garcia Martinez, F., Ether, 271.
Garcia Montalvan, F., Delft, 272.
Garcia, V., Grammar, 266.
Garcia, V. J., Linen, 273.
Garcia y Cubas, A., Geography, 266.
Gardam, W., & Son, Plates, 137.
Gardida, Thomas, Tobacco, 268.
Gardiner, S., Apparatus, 331.
Gardner & Co., Chairs, 109.
Gardner, Dorsey, Asst. Secretary, 10.
Gardner, J., & Sons, Lamps, 148.
Gardner, M. W., Combination knobs, 376.
Gardner & McKenzie, Skins, etc., 183.
Gardner, P., Tea pots, 147.
Gardner, Wm., Breech-loading cannon, 133.
Garelin, J., Cloth, 316.
Garelin, Nikon, & Sons, Cotton yarn, 316.
Garfias, Miss M., Music, 266.
Gargiulo, Francesco, Book, 365.
Garjeanne, A. G., Carpets, 220.
Garland, Benj., Iron bridge, 139.
Garlive, N., Stone, 84.
Garner, Mrs. M. E., Basket, 173.
Garnier, P., Pharmaceutical preparations, 192.
Garofoli, O., Sculpture, 235.
Garratt, A., Disc, 331.
Garretson, T., Coal, 51.
Garrid, Scale, 366.
Garrid, J. F. da S., Scales, 254.
Garrison, W. S., Stove, 376.
Garry Iron Roofing Co., Roofing, 115, 378.
Garsed Bros., Awnings, 115.
Garvies, C. A., Lime and limestone, 72.
Garvin, T. E., Indiana, 12.
Gasau, J. A., Soap, 271.
Gascandil, Coverlet, 298.
Gasco, G., Cotton, 294.
Gascou, L. R., Silk, 196.
Gaskell, Deacon, & Co., Soda ash, 144.
Gaskell, J., Animals, 163.
Gaskell, Mrs., Flowers, 166.
Gasko, G., Fabrics, 298.
Gaspar, M. R., Table, 284.
Gasparini, Giacomo, Meter, 365.
Gasse, F., Lead foils, 82.
Gastaldo, Dr. José, Blepharotome, 278.
Gates, E. E., Organs, 342.
Gatling Gold Mining Co., Ore, 70.
Gatling, R. J., Guns, 134.
Gaudichet, V. C., Carriages, 200.
Gaujot, E., Maps, 335.
Gauthier, O., Iron, 74.
Gauthier, Villars, Books, 343.
Gautier, Bellon, & Co., Velvets, 196.
Gauvreau, P., & Co., Cement, etc., 72.
Gavaarro, M. J., Paper, 278.
Gavarra & Son, Paper, 278.
Gaveao, C. J. M., & Paes de Barros, Newspapers, 366.
Gavioli, C., jr., Pianos, 345.
Gavioli & Co., Organs, 345.
Gay, Jean, Watch chains, 213.
Gaylord Man'fg Co., Swords, 134; Locks, 141.
Gazette des Beaux Arts, Newspapers, 343.
Geary, E. R., Oregon, 13.
Gebbie & Barrie, Publications, 327.
Gebens, E., Chemicals, 201.
Gebhard & Co., Satins, 203.
Gebhard, G., Judge, Gr. VIII., 16.
Gebhart, I. M., Manuals, 347.
Geddes, J. W., Skylight, 115.
Gee, J. N., Mineral water, 74.
Gehrig Brothers, Necklaces, 205.
Gehrling, C., jr., Movements, 345.
Geissel & Hartung, Jewelry, 204.
Gelabert, R. y Hermano, Models, 279.
Gelder, G. M. van, Piano method, 360.
Gelderen, A. van, Encyclopedia, 368.
Gell, P. H., Wool, 159.
Gelos, Martin, Minerals, 83; Salt, 255; Spurge, 259.
Gely Bros. & Co., Gloves, 276.
Gem Soldering Iron Co., 377.
Gemrig, J. H., Instruments, 135.
Gemunder, A., Bass, 333.
Gemunder, G., Violin, 332.

Gener, P., Syrups, 278.
Generés, José, Alabaster, 90.
Generois, Felice, & Sons, Soaps, 232.
Genest, P. M. A., Map, 342.
Geneva Society, Reports, 357.
Genkinger, A., Tools, 137.
Gennari, E., Optical instruments, 365.
Genonceaux, L., Books, 359.
Gentesse, C., Head conformateur, 189.
Genth, F. A., Judge, Gr. III., 15.
Gentile, Grassini, Cream of tartar, 231.
Gentiluomi, I. V., & Co., Cotton goods, 233.
Geodetical Department, Maps, etc., 369.
Geographical Inst. of Norway, Maps, 364.
Geographical Institute, Weimar, Maps, 348.
Geological Commission, Photographs, 82.
Geological Survey, Great Britain, Maps, 339.
Geological Survey Dep't., Ores, 70; Plans, 155; Sketches, 156; Salt, 187; Bricks, 188.
Geological Survey of So. Norway, Stones, 80.
Geological Survey of Sweden, Minerals, 78; Maps, 363.
George, J. S., Stone, 66; Woods, 173.
Geraldini, E., Jewelry, 234.
Gerber & Co., Condensed milk, 214.
Gergi Melouk, Fabric, 298.
German Associations for Soldiers, Berlin, 350.
German Sewing Mach. Factory, Furniture, 202.
Germania Mills, Doeskins, 120.
Germann & Eggler, Wood carvings, 358.
Gerosa, A. E., Embroidery, 234.
Gerosa, E. & E., Telegraphic instruments, 365.
Gerrard, A.W., Pharmacies, 144; Plasters, 153.
Gerth, R. J., Furniture, 252.
Gervais, A., & Co., Kettles, 194.
Gerwig, A., Jewelry, 204.
Gesrichvouz, Gov't of, Mineral water, 97.
Gessler-Zeller, J., Leckerly of Basle, 214.
Gessrick & Woerfel, Stones, 98.
Gesswein & Reichhelm, Implements, 139.
Gest & Atkinson, Oils, etc., 103.
Gettysburg Katalysine Co., Water, 55.
Gévelot, Guns, 199.
Gevers & Schmidt, Carpets, 203.
Gevin Bros, Books, 326.
Geyer, W. & Ed., Bros., Buckskin, 350.
Ghilbellini Bros., Varnish, 232.
Giacomazzi, Favare Salvatore, Sea salt, 231.
Giacomazzi, Rocco, Liquorice, 231.
Giacomini, Luigi, & Co., Brushes, 235.
Giannotti, G., Silk, 233.
Gianoli Bros., Soaps, 232.
Giauque, F., Ornaments, 329.
Gibb & Co., Rag carpet, 122.
Gibbon, J. M., Cochineal, 170.
Gibbs, G., & Co., Nuts, 190.
Gibert & Soler, Essences, 278.
Gibson, J., Wool, 183.
Gibson, P., Minnesota, 13.
Gibson, Robert L., Building sandstones, 71.
Gibson & Sons, Sugar, 180.
Gibson & Tyler, Blankets, 121.
Gibson, W., Wheat, 183.
Gibson, W. H., Wool, 183.
Gibson, W., & Son, Wool, 183.
Gibson, William, Jewelry, 151; Watches, 339.
Gien Pottery Mfg. Co., Faience, 193.
Giers, C. C., Tennessee, 14.
Gifford, Señor, Silver ore, 83.
Gifuken Local Government, Paper, 247.
Gigena, J., Horse cloth, 260.
Gil, R., Brooms, 280.
Gilbert, A. A., Saddlebags, 135.
Gilbert, A. C., Ironing board, 377.
Gilbert, A. N., Wools, 159, 165.
Gilbert, F. A., Table, 108.
Gilbert, G. H., Mfg. Co., Blankets, 121.
Gilbert, J., Wine, 167.
Gilbert, L. N., Massachusetts, 12.
Gil de Muro, Isidoro, Soaps, 271.
Giles, H. G., & Son, Stoves, 375.
Gilkinet, C. J., Ink, 215.
Gill, J., Engraving, 148.
Gill, W. F., & Co., Books, 328.
Gillard, J., Wines, 168.
Gillet & Son, Chemicals, 193; Silk, 196.
Gillmore, Q. A., Judge, Gr. II., 15.
Gillon-Steyaert, Lace, 217.
Gilman, D. C., Judge, Gr. XXVIII., 19.
Gilman, F. C., Wagon, 381.
Gilman, J. H., Lava, 250.
Gilman, J. N., Fibre, 251.
Gilmour, A., Oats, 163.
Gilmour, G., Augers, 190.
Gilmour, John, Hams, 156.
Gilpin, Edwin, Sandstone, 72.
Gilroy & Hurst, Powders, 157.
Gimenez, J., Embroidery, 258; Box, 277.
Gimenez, L., Writing desk, 256.
Gioiuzza, G., Jewelry, 234.
Giordano, Prof. Scipione, Materia medica, 365.
Giordano, S., Legal blank, 234.
Giorgi, A., Flute, 371.
Giorgi, Kara-Keni, Drums, 371.
Giorki, Seeds, 309.
Giorki, A., Sesame, 308.
Giorki, B., Pitchers, 293.
Giorki, Miss B., Hosiery, 300.
Giorki, Rizzo, Guitar, 371.
Giorki, V., Rice, 308.
Giovan, Siros, Gold dust, 97.
Giralt, Nicolas, Lime, 91.
Girard, C., Cutlery, 199.
Girart, N., Chemicals, 271.
Giraud, Alex., Silks, 196.
Giraud & Josserand, Muslins, 197.
Giron, D. José, Ore, 94.
Girona y Mato, R., Delft, 272.
Girondeau, F., Bronzes, 198.
Girou Bros., Ribbons, 196.
Gisbert Pascual, C., Cloth, 274.
Gisbert & Soler, Powder, 271.
Gisbert y Pujals, Manuel, Mineral coal, 89.
Giuffrida, L. G., Almond oil, 232.
Giuliano, Ditta, Piano, 365.
Giulivo, B., & Co., Knives, etc., 235.
Givotovski, Botanical apparatus, 372.
Gladbach Joint Stock Spinning & Weaving Mills, Cotton and mixed goods, 203.
Gladbach, Prof., Architecture, 356.
Gladwin, J. P., Ivory earrings, 169.
Glano, G., Skin, 311.
Glardon, C. L., Enamel, 358.
Gläsel, Moritz, Violins, etc., 350.
Glaser, L., Lithographs, 347.
Glasgow Apothecaries Co., Dressings, 153.
Glasgow Company, Shirtings, etc., 118.
Glasgow & Port Washington Iron & Coal Co., Ores, 50.
Glasgow & Port Washington Iron & Steel Co., Iron, 55.
Glasgow Pottery Co., Decorated ware, 108.
Glashütte United Clockmakers, Clocks, 349.
Glass Works Joint Stock Co., Glass, 215.
Glassware & Plate Glass Manfg. Co., 216.
Glazier, J. J., Bro., & Co., Hose, 123.
Gleason, W. B., & Co., Ornaments, 113.
Gledhill, Bottles, 160.
Glendale, A., Montana, 13.
Glendale Elastic Fabrics Co., Fabrics, 142.
Glendenning & Truitt, Whips, 127.
Glendon Iron Co., Iron ores, 49; Flux, etc., 57; Drawings, 335.
Glenister, W. A., Axles, 161.
Glenn, Frank, American buffet, 112.
Glick, G. W., Kansas, 12.
Glier, K. A., jr., Instruments, 349.
Glinka, P., Frames, 316.
Glinkin Bros., Horn, 318.
Globe Furnace, Iron ores, 48.
Globe Iron Co., Iron, 58.
Globe Nail Co., Nails, 140.
Globe Rolling Mill Co., Iron, 57.
Globe Woolen Co., Cassimeres, 120.
Glömsta Manfg. Co., Furniture, 225; Form, 362.
Glookhoff, N. G., Japanned ware, 316.
Glorud Nickel Co., Ores, 80.

Gloucester Gingham Mills, Shirtings, 118.
Gnocchi, G., Inks, 232.
Gobert, A., Son, Judge, Gr. XXI., 18.
Gobetsky, Josef, Quinine, 207.
Gobright, L. A., Alternate, 9.
Godchaux, A., & Co., Books, 343.
Godché, E. P., Leather, 311.
Goddard, Thos., Judge, Gr. XVII., 18.
Goddard, Wm., Rhode Island, 14.
Gödecke, Carl, Plans, 75.
Godfredsen, R., Belting, 224.
Godfrey, B. J., Fibres, 175.
Godfrey, C. J., & Son, Thimbles, 129.
Godfrey, F. R., Animals, 163.
Goebel, J., & Co., Clay, 107.
Goedecke & Co., Chemicals, 201.
Goedwaagen, P., Stoves, 220.
Goertz & Kirch, Cotton and mixed goods, 203.
Goes, J. T., Minerals, 82.
Goff, D., & Son, Skirt braid, 123.
Goggin, Jeremiah, Mirrors, 147; Jewelry, 151; Time pieces, 339.
Goggin, Jas., Jewelry, 127.
Gogly, A., Flowers, 198.
Gois, Francisca Emilia de, Lace, 288.
Golaksiz Oglou Nicolas, Buttons, 302.
Gold Coast, Colonial Govt. of, Woods, 177.
Gold Coast, Colonial School of, Knitting, 177.
Gold Working Co. of Oporto, Plate, 284; Jewelry, 288.
Golden Stream Claim, Quartz, 166.
Goldmark, J., Percussion caps, 133.
Gold's Heater Co., Heaters, 375.
Goldsborough, John, Machine, 130.
Goldsbrough, K., & Co., Wools, 165.
Goldschmidt, H., Razor strops, 138.
Goldschmidt, Louis A., Opals, 76, 209.
Goldschmidt's Sons, Ornaments, 209.
Goldsmith, J. G., Piano, 333.
Goldsmith, M., U. S. Commissioner, 9.
Goldsmiths' Stock Co., Silver, 226.
Goldy, A., Judge, Gr. VIII., 16.
Göldy, A., & Co., Embroideries, 213.
Gomes, Alonso, Ores, 94.
Gomes, M. M., Boots, etc., 253.
Gomes, T. G. C., Argil, 82.
Gomez, A. A., Cloth, 275.
Gomez, Crisanto de, Carbonate of lead, 87.
Gomez, José M., Pyrites, 89; Alabaster, 90.
Gomez, N., Cottons, 280; Handkerchiefs, 281.
Gomez, P. J., Cotton yarn, 265.
Gomez, Ruiz, Widow & Sons, Lead ore, 88.
Gomez, S., Earthenware, 272.
Gomez & Sons, Boots, 287.
Gomez, Z., Agrometre, 269.
Gonçalves, A. D., Sculpture, 290.
Gonçalves, Joao, Card, 287.
Gonçalves, Manuel Joao, Woolen girdle, 287.
Gonçalves, Rivas, & Co., Buttons, 288.
Gondard, Cirlot, & Martel, Foulards, 196.
Gondy, J. B., & Co., Watches, 344.
Gong Bell Manufacturing Co., Bells, 141
Gonsalves, J., Calcined kaolin, 82.
Gonssan, Government of, Pyrites, 96.
Gonthier, Dreyfus, & Co., Engravings, 198.
Gonzaga, E. J., Clays, 82.
Gonzalez Alegre, José, Thermal waters, 92.
Gonzalez, B., Cloak, 276.
Gonzalez, D., Wreath, 258; Horse cloths, 260.
Gonzalez, Diego Bibiano, Phosphates, 87.
Gonzalez, Domingo Cecilio, Ammonia, 270.
Gonzalez, Fermin, Hats, 276.
Gonzalez, Gabriel, Galena, 87.
Gonzalez, J., Plants, 259; Handkerchiefs, 281.
Gonzalez, M., Varnish, 280; Map, 368.
Gonzalez, M. C., Sunshade, 277.
Gonzalez, Maceda P., Webs, 273.
Gonzalez Molada, J., Building materials, 90.
Gonzalez, R., Tiles, 272.
Gonzalez Sanz, L., Cloths, 274.
Gonzalez, Ugalde, Reports, 261.
Goodall, Backhouse, & Co., Food, 153.
Goodall, C., & Son, Cards, 152; Printing, 154.
Goodell Company, Cutlery, 139.
Goodfellow, Jos., Building sandstones, etc, 72.
Goodier, J., Trusses, 135.
Goodrich, D. W., Books, 327.
Goodspeed, H. C., Utah, 14; Judge, Gr. XIX., 18.
Goodwin, A. J., Sanitary bedstead, 111.
Goodwin, W. C., Toys, 127.
Goold, J., & Co., Buggy, 381.
Gootchkoff, E., Woolen goods, 316.
Gootkooski, Scales, 373.
Gorceix, H., Minerals, 81; Map, 82.
Gordon, A. D., Felts, 132.
Gordon, W. J. M., Chemicals, etc., 101.
Gore & Co., Wool, 180.
Gorham, J., Finance, 11; Rhode Island Comr., 14.
Gorham Manfg. Co., Silverware, 113.
Gori, M. W. C., Conveyances, 221; Book, 361.
Goribar, Faustino, Sugar, 268.
Goroblagodati, Administration of, Ores, 98.
Gorodetzki, A., Embroideries, 318.
Goroshkoff, P., Household utensils, 316.
Gorter, D. & S., Soap, 220.
Goshorn, A. T., Director-General, 9.
Gosling, J. W., Buggies, 380.
Goss, J. E., Plans, 356.
Gosse-Perier, Flowers, 198.
Gossieaux, F., Hair picture, 217.
Gossin, F., Terra-cotta, 106.
Gostcho, Djivaré, P., Wine, 313.
Göteborgs Mechanical Works Co., Flue, 79.
Goth, H. J., Paper, 133.
Gotha, Shirts, 299; Vest, 300.
Gothard Railway Co., Plans, 356.
Gottesleben, P., Judge, Gr. XI., 17.
Gottland Grindstone Co., Grindstones, 78.
Gottschalk, I. C., Essences, 224.
Götzinger, Dr. E., Drawing, 353.
Goudie, Thomas, Hydraulic cement, 72.
Goudle, Thomas, Lime and limestone, 72.
Gough, Edward, Turned rolls, 57.
Gould, C. H., Steps, 380.
Gould's, M., Sons, Stair rod, 141.
Goumas, P., & Co., Instruments, 345.
Gourd, Croizat, Son, & Dubost, Silks, 196.
Govaert Bros., Canvas, etc., 216.
Gove, J. C., Machine, 377
Government Arm Mfy., Rifles, 221.
Government Lithographic Est., Maps, 179.
Government Penal Est., Cocoons, 180.
Government Printing Est., Books, 179.
Government Printing Office, Books, 64, 157, 340.
Government Survey, Dept. of, Map, 251.
Goyano, J. J., Music, 366.
Goyard, F., Crucibles, 193.
Goybura, J. B., Coffee, 264.
Goyena, J. Z. de, Flowers, 258.
Goyers, J. A. & H., Bros., Pulpit, 216.
Gracian, Andrés, Sulphur, 88.
Gracie, W., Malt, 183.
Graf, E., Trunk, 217.
Gragera, A. M. M., Pharmacies, 283.
Graham, A. J., Book, 326.
Graham, P., Judge, Gr. XXVII., 19.
Graham, T., Wool, 168.
Gram, Wm., Furniture, 229; Weapons, 230.
Gramignani, L., Dentals, 235.
Gramme's Magneto-Electric Machine Co.,345.
Grand Rapids Brush Co., Brushes, 142.
Grand Tower Mining, Mfg., & Trans. Co., Ores, 49; Iron ore products, 57.
Granda, Album, 371.
Grandaki Ahmed Effendi, Belts, 302.
Grandaki, Madame A. E., Napkins, 302.
Grande, R., Gold necklace, 258.
Grandjean, Hry., & Co., Watches, 355.
Grandjean-Perrenoud, H., Watch engraving, 355.
Grandpierre, J., Vermouth, 214.
Granducontagne, Richard, Argil, 91.
Granholm, J. P., Rectified amykos, 225.

Granite Mills, Printing cloths, 118.
Grant, C., Lime, 171; Beeswax, 172.
Grant, C. B., Alternate, 9.
Grant & Co., Cordage, 155.
Grant Furnace, Iron ores, 48; Pig iron, 58.
Grant, Misses Julia & Mary, Ornaments, 173.
Grant, Mrs., Sauce, 164.
Grant, Wm. A., Map, 335.
Graphic, Proprietors of the, Process, 338.
Grappin, G., Model of mine, 92.
Grappin, G. de, Phosphate of lime, 87.
Grassi, F., Press, 234.
Grasso, Giuseppe, Juice of liquorice, 231.
Gratcheff, J., Woolen shawls, 316.
Grattarola, C., Frames, 233.
Grau y Puig, J., Bitumen, 271.
Graubünden, Building Insp., Plan, 355.
Grava, Frei L. da, Shirt, 253.
Gravenstine, J., Sideboard, etc., 376.
Graves Bros., Stone, 53.
Graves, J. W., Bread, 183.
Gravier, Clement, Carpets, 195.
Gravina, Domenico, Books, 365.
Gray, A., Kansas, 12.
Gray, A., & Co., Tweeds, 161.
Gray & Barton Western Electric Telegraph Co., Instruments, 331.
Gray, Daniel H., Sulphur, 102.
Gray, E., Telegraph, 332.
Gray, F. W., Drawings, 342.
Gray, Young, & Spalding, Brine, 74.
Grayling, W. S., Extract, 155; Bark, 156.
Grays Chalk Quarries Co., Chalk, etc., 61.
Grazalema, Corporation of, Marble, 90.
Great Diamond Plantation, Ornaments, 175.
Great Falls Mfg. Co., Sheeting, 116, 118.
Great North of Scotland Granite Co., Monumental pedestal, etc., 61.
Great Western Iron Co., Pig iron, 61.
Green, C. H., Wool, 180.
Green & Daniels, Cotton yarns, 117.
Green, E. C., Guns, 152.
Green, E. K., Wines, 171.
Green, F. F., Ohio, 13.
Green, J., Seat, 381.
Green, J., & Nephew, Glass, 147.
Green, R., Cradles, 157.
Green, S. H., & Sons, Calicoes, 119.
Green, W. S., Judge, Gr. IV., 16.
Greenbank Alkali Co., Chemical products, 144.
Greener, John, Coal, 71.
Greener, W. W., Guns, 152.
Greenfield Plantation, Sugar, 175.
Greenfield & Stewart, Panel door, 155.
Greening, N., & Sons, Wire, 148.
Greenmount Spinning Co., Cottons, 148.
Greenway, Henry, Drawings, 340.
Greenwood Pottery Co., Ironstone china, 108.
Greer & Co., Wines, 164.
Greeves, E. G., Wool, 165.
Gregory, A. C., Ores, 67.
Gregory & Co., Cast steel, 56; Carpets, 150.
Gregory, G. W., Judge, Gr. XXII., 18.
Gregory, J. M., Judge, Gr. XXVIII., 19.
Gregory, V. R., & Co., Monument, 73.
Greiner, E., Enameling colors, 202.
Greiner, G., Piano, 332.
Gressard & Co., Silks, 204.
Grest, M., & Co., Trunk, 259.
Grewar, John W., Wool, 171.
Griaznoff, A., Pistols, 319.
Gribanoff, J., & Sons, Linens, 316.
Grice, J., & Sons, Wrappers, 132.
Grieffenhagen, W., Wines, 164.
Griendling, J., Barber's chair, etc., 111.
Griffin, A. B., Box, 128.
Griffin, R. A., Peat, 71.
Griffith, C., Kentucky, 12.
Griffith & Co., Locks, 190.
Griffith, J. W., Judge, Gr. XIX., 18.
Griffith, W. W., Alternate, 9.
Griffiths, John W., Works, 327.
Griffiths, W. K., Quartz, 166.
Grigorieff, Apparatus, 372.
Grikooroff, Ornaments, 318.
Grillo, A. D., Vases, 252.
Grillon, E., Dates, 192.
Grimaldi, Giovanni, Extract of liquorice, 231.
Grimes, S. & G., Arrowroot, 180.
Grimm, B., Coins, 242.
Grimwood, T., Quail, 163.
Grinnel, J. S., Judge, Gr. XXIII., 18.
Grison, T., & Co., Cloth, 195.
Grissi, J., Plaster, 266.
Griswold, Catherine A., Corsets, 124.
Grivegnée Co-operative Soc'y, Reports, 360.
Grivolat, L., Clock, 344.
Grobet, François Louis, Tools, 358.
Grohmann & Kessler, Glass articles, 207.
Grolman, C. W., Frames, 220.
Groom, F., Coal, 68.
Groom, W. H., Book, 179.
Groote, V. de, Lace, 217.
Grootes, M., Blueing, 220.
Gropengiesser, J. L., Clock, 330.
Gros & Co., Corsets, 204.
Gross, E., Reports, 351.
Grosse, F., Wine, 164.
Grossius, J., Stove, 375.
Grossmann, Joh., Wood carvings, 358.
Grote, F., & Co., Ivory goods, 129.
Grote, G., Photographs, 347.
Grothe, H., Apparatus, 349.
Groton Mfg. Co., Bleached goods, 118.
Grottenthaler, V., Pipes, 128.
Grousac, P., Map, 368.
Grove Hill Co., Quartz, 166.
Groveland Mills, Flannels, 121.
Grube, C., Buggy, 381.
Grube Institution for Instructing the Poor, Pupils' work, 357.
Grumbach, C., Books, 347.
Grunes & Co., Bricks, 256.
Grunow, F. W., Publications, 347.
Grunwald & Klei, Mixed fabrics, 203.
Grünwald, M., Furs, 318.
Gruppe, G., Drugs, 280.
Guadalupe Co., Iron, 86.
Guarro, W., Paper, 278.
Gué, G., & Co., Silk, 275.
Gueiroz, A. G., Cotton prints, 285.
Gueiroz, J. S. P. de, Oil, 283.
Guelpa-Piazza Bros., Gimlets, 235.
Güemes, D., Cup, 256.
Guerard, E. von, Painting, 161.
Guerin, C., Child's carriage, 191.
Guerin, L., & Co., Books, 343.
Guerra, Antonio José de Soura, Hinges, 289.
Guerra, J. B. da S., Linen, 285; Poplins, 286; Silks, 287; Machine, 370.
Guerreo, Y., Bricks, 265.
Guest, T. B., & Co., Biscuits, 164.
Guesta Match Manufactory, Matches, 225.
Gueudjchan, O., Fabrics, 298.
Guevara, S., Fabric, 281.
Guglielmini, Andrea, Olive oil, 231.
Guibelalde, C., Embroidery, 277.
Guibert, jr., Gloves, 197.
Guida, Prof. Francesco, Book, 365.
Guiet, Mr., Judge, Gr. XVII., 18.
Guild, C., Massachusetts, 12.
Guilherme, Maria, Blankets, 286.
Guillaumet, A., Sons, Fabrics, 195.
Guillaumin & Co., Books, 343.
Guillemin, R., Cutlery, 199.
Guillery, H., Sanitary report, 218.
Guimaraes, A. da Costa, Linen fabrics, 285.
Guimaraes, A. J. A., Soap, 252.
Guimaraes, B. J. P., Linen woof, 285.
Guimaraes, J. A. da S., Varnishes, 252.
Guimaraes, Joaó Carvalho, Spurs, 290.
Guimaraes, Joaquim M. da S., Scissors, 289.
Guimaraes, M. M. R., Table cloths, 285.
Guimaraes, T. T. A., Saddles, 254.
Guimera Bro., Wool, 275.
Guimet, L., Blue, 193.
Guinet, Ant., & Co., Silks, 196.
Guinon's Son & Co., Chemicals, 193.

Gujer-Brunner, Table cloths, 212.
Gulberg Stock Co., Sulphuric acid, 225.
Gulbin, O., Skin, 311.
Gulbing, O. K., Wine, 313.
Guldberg, C. Hoegh, Varnish, 223.
Gulden, H., Gloves, 204.
Gulland & Co., Coal, 67.
Gulliver Brothers, Tree seeds, 182.
Gulmaraes, A. A. A., Saddle, 254.
Gumaelius, A., Newspaper, 362.
Gumuch, Hané, Galena, 96.
Gun Foundry, Iron, 98.
Gundberg, J. W. L., Copper vessels, 363.
Gundlach Bros., Crucibles, 202.
Gundlach, J., jr., Crucibles, 202.
Gunn, D., Wool, 180.
Gunn, J. H., Quartz, 166.
Gunning, T. B., Plates, 136.
Guntsche, J., & Schröeder, Saddles, 259.
Gurd, J. R., Broom, 190.
Gurley, W. & L. E., Instruments, 329.
Gurney, H. D., Granite, 52.
Gurney, W., U. S. Commissioner, 9.
Gustafsberg Mfg. Co., China, 225, 226.
Gustafson, G., Knives, 227.
Gut, Jean, & Co., Photographs, 358.
Guthrie, G. D., Pottery ware, 160.
Guthrie, Jones, & Co., Buggies, 380.
Gutierrez de Ceballos, J., Mineral waters, 92.
Gutierrez, J. Enrique, Fan, 277.
Gutierrez, Julian, Yellow ochre, 87.
Gutierrez, Julian, & Co., Marble, 86.
Gutierrez, Rodriguez, Mineral water, 91.
Gutierrez, S., Books, 266.
Gutte, L., Wood carvings, 202.
Guyaux Bros., Black marble mantelpiece, 216.
Guyer, Eduard, Hotel architecture, 356.
Guyot-Lupold, A., Enamels, 212.
Guyot & Migneaux, Birds, 198.
Gysae, R., Chemicals, 201.
Gysi, Fr., Drawing instruments, 354.
Gysinge Iron Works, Iron, 79.

H.

Haarmann, W., Chemicals, 201.
Haas, B., jr., & Co., Clocks, 344.
Haas, Jas. A., & Co., Jewelry, 127.
Haas, Ph., & Sons, Clocks, 349.
Haase, J., Matches, 315.
Haase, J. A., Car, etc., 382.
Hab Usu, S., Aléanus, 304.
Hababutskuwan Museum, Animals, 248.
Habel, C., Publications, 347.
Haberkorn, G., Gloves, 209.
Habig, P., & Co., Hats, 208.
Hache, Ad., & Le Halleur Bros., China, 193, 194.
Hachette & Co., Books, 343.
Hachmet, Cartridge box, 304.
Hackfeld, H., & Co., Coffee, 251.
Hadank & Son, Bell, etc., 349.
Hadj, T., Trowsers, 300.
Hadji, Wool, 314.
Hadjidli Ousta, Cases, 303.
Hadley Co., Threads, 117.
Haenle, L., Metal leaf, 201; Papers, 205.
Haensel, H., Chemicals, 201.
Haessel, H., Books, 347.
Haffner, B., sr., Safes, 194.
Hagen, J., Skins, etc., 364.
Hagner Drug Milling Co., Grinding mills, 102.
Hagstoz & Thorpe, Cases, 330.
Hague Association for Improvement of Workmen's Buildings, Model, 361.
Hahl, A., & Co., Clocks, 330.
Hahn, Baron, Cartridges, 319.
Hahn, C., Polished stones, 204.
Hahn, Gottlieb, Toys, 205.
Hahn, P., Polished stones, 204.
Haho, B. H. A., Morocco, 311.
Haibara, N., Paper, 247.
Haicha Agha, Carpet, 296.
Haidar, M., Garment, 300.
Haido, Garment, 300.
Hailey, J., Idaho, 12.
Hainaut Glass Mfg. Co., Plate glass, 216.
Haines Bros., Pianos, 333.
Haines, J. W., Alternate, 9.
Hake, Mrs. von, Ladies' underwear, 204.
Hakim Bros., Silks, 298; Garments, 300.
Hakim, H., Bros., Cotton, 294.
Hakin Hadji Bros., Silk, 297.
Haktar, Mehemed, Wax, 312.
Haldeman Paper Co., Paper, 131.
Halderman, L., & Son, Stone, 53.
Haldji, O., Belts, etc., 300.
Hale, B. S., & Co., Fish lines, 117; Wire, 332.
Hale, I. P., West Virginia, 14.
Hale, Kilburn, & Co., Folding bed, etc., 112.
Hale & Parshall, Oils, 106.
Haler, O. H., Hosiery, 300.
Halkier, P. A., Timber, 224.
Hall, A., & Sons, Bricks, 107.
Hall, Elton, & Co., Spoons, 113.
Hall, F. R., Nevada, 13.
Hall, G. B., Ochres, 187; Machines, 188.
Hall, J., & Son, Coach, 381.
Hall, P. W., Holders, 130; Locks, 141.
Hall, Wm., Coal, 71.
Hall's Safe & Lock Co., Safes, 112; Locks, 141.
Hallet, Davis, & Co., Pianos, 332.
Halling, A., Knives, 227.
Halm, Bellows, & Buttler, Furniture, 111.
Halon, Alphonse, Marble, 72.
Halsey, W. J., Oregon, 13.
Hamadaken, Local Government, Paper, 247.
Hamblet, Joseph, Bricks, 145.
Hambleton, J., & Son, Toilet articles, 106; Decorated porcelain plates, 108.
Hamden Furnace, Ores, 49; Pig iron, 58.
Hamclin, A., Silks, 196.
Hamerli, J., Gloves, 209; Leather trusses, 210.
Hamid Moustapha, Boots, 301.
Hamie & Booth, Silks, 122.
Hamilton, G. A., Judge, Gr. XVI., 17.
Hamilton, Homer, Stone, 54.
Hamilton Mfg. Co., Tickings, 119.
Hamilton, P., Alabama, 11.
Hamilton, P. Hunt, Chains, 127.
Hamilton Woolen Co., Prints, etc., 119, 121.
Hamlin, E., Violins, 332.
Hammer's Museum, Catalogues, 363.
Hammond, W., Bismuth, 68.
Hamparssoum, Carpets, 296.
Hampton, C. F., Augers, 137.
Hampton, Cutter, & Sons, Clays, 54; Fire brick, 107.
Hampton Normal & Agricultural Inst., 322.
Hana Meti, Calico, 294.
Hance Bros. & White, Extracts, etc., 101; Drug mill, 135.
Hance, R. A., Fluid extracts, 101.
Hanekar, J. H. H., Ore, 65.
Hancock, E. C., Louisiana, 12.
Hand, J. C., & Co., Corundum, 59.
Handy & Boland, Trusses, 136.
Haneborg, A. O., Wood pulp, 230.
Hanford, Theodore, Gold strata, 60.
Hangard, Springs, 344.
Hanging Rock Iron Region, Ores, 49; Iron, 56, 59; Map, 335.
Hanhart-Solivo, J., Cambrics, 212.
Hanke, Reinhold, Pottery, 202.
Hannibal & St. Joseph Railroad, Minerals, 48.
Hans, L., Prints, etc., 347.
Hans, Octave, & Co., Glass, 215.
Hansen, C., & Co., Extract, 223.
Hansen, R. M., Tachygraph, 224.
Hansen, T. R. von, Photographs, 351.
Hanson, C. B., Furniture, 223.
Hanson, Carl, & Co., Pasteboard, 223.
Hanson, G. A., Maryland, 12.
Hanssen, F., Cod-liver oil, 229.
Hantke, B., Hardware, 319.
Hapgood & Smith, Match sticks, 380.

Häpke, A. B., Knit goods, 123.
Happel, J., Desk, 359.
Harani Oglou, Skin, 311.
Haranlar, Boyorki, Soap, 291.
Harboe, C., Minerals, 223.
Harcourt, J., Ores, 68.
Harder, J., & Son, Guns, 134.
Hardie, J., Biscuits, 159.
Harding, J. A., Montana, 13.
Harding, W. W., Albums, 326.
Hardman, H., Pianos, 333.
Hardy, A., Cork, 167.
Hardy, M., Colors, 193.
Hardy, T., Wine, 167.
Hargreaves & Nusseys, Coatings, 149.
Harkness, A., & Co., Disk, 162.
Harkness, N. W., Oils, 103.
Harlan & Hollingsworth Co., Cars, 382.
Harleigh Coal Co., Coal, 51.
Harline, Merzifoun, Towels, 295.
Harling, Mrs., & Field, H. H., Ferns, 158.
Harman, G., Petrifaction, 241.
Harmon, J. C., Checker board, 109.
Harper & Bros., Books, 326.
Harper & Moores, Fire clays, 146.
Harrap, A., Wood, 63; Wheat, 183.
Harrington, J., & Co., Boxes, 151.
Harrington & Richardson, Fire arms, 134.
Harris, H. G., Signals, 106.
Harris, J., & Co., Iron mantels, 188.
Harris, J. W., Missouri, 13.
Harris Manufacturing Co., Shirtings, 118.
Harris, P. S., Minnesota, 13.
Harris, S., & Sons, Combs, 129.
Harrison Brothers & Co., Chemicals, etc., 101.
Harrison, George King, Fire clays, 61.
Harrison & Kellogg, Wrenches, 138.
Harrison, W. H., & Bros., Fire grates, 139.
Hart, A. H., & Co., Yarns, 142.
Hart, Bliven, & Mead Mfg. Co., Tools, 130, 138.
Hart, C. A., Equipments, 109; Banners, 142.
Hart, Son, Peard, & Co., Fixtures, 147.
Hartel, Andreas, & Co., Prints, 119.
Hartell & Letchworth, Glass globes, 108.
Hartford Carpet Co., Carpets, 122.
Hartin, Calico, 294.
Hartine, Scissors, 305.
Harting-Bank, H. J., Instruments, 361.
Hartknoch, J. F., Books, 347.
Hartman, C. H., Fruits, etc., 179.
Hartman, W., Oils, 315.
Hartmann, L. & Edam, Pipes, etc., 210.
Hartmann, Laist, & Co., Glycerine, 103.
Hartmann, Moritz, Glass pearls, 207.
Hartmann, Nicolaus, Plans, 356.
Hartmann, P., Medical dressings, 205.
Hartshorn, Stewart, Rollers, 112.
Hartung, H., & Son, Books, 347.
Haruna, S., Vases, 245.
Harvey & Adamson, Drain pipe, etc., 106.
Harvey & Baird, Shirts, 124.
Harvey & Ford, Umbrellas, 128.
Harzabel, T., Sword, 278.
Hasegawa Settei, Water color, 249.
Hashimoto, S., Stones, 244.
Haskanorich, Ali, Tobacco, 309; Prunes, 312.
Haskell Bros., Wagons, 380.
Haskell, C. H., Alternate, 9.
Haslwanter, J., Citherns, 350.
Hassan, Silk, 297.
Hassan, A., Trowsers, 300.
Hassan Agha, Wheat, 308.
Hassan Ali, Curtains, 294; Fabrics, 298.
Hassan, C., Underskirt, 300.
Hassan Chaban, Cotton, 294.
Hassan Effendi, Silk, 297; Belts, 300.
Hassan, H., Carpet, 296.
Hassan, O., Cotton, 294; Morocco, 311.
Hassan Oglou Ahmed, Skins, 311.
Hassan Reiss, Shoes, 301.
Hassan Sali, Clogs, 301.
Hassan Usine, Canes, 303.
Hassebroucq Bros., Thread, 195.
Hassenforder, C., Safes, 111.
Hasslauer & de Champeaux, Pipes, 193.
Hastings & Co., Bronze, 55.
Hastings, Cunningham, & Co., Wool, 165.
Hatch, J., Minerals, 47.
Hatna Gros, Handkerchiefs, 295.
Hattersley, J., Aerated waters, 65.
Hatton, Sons, & Co., Charcoal sheet iron, 62.
Hattori, C., Mortars, 244.
Hauber, G., Jewelry, 204.
Hauboldt, O., Publications, 347.
Hauer, C., Gloves, 209.
Hauf, Dr., Brandy, 171.
Häusler, Carl S., Cement, 75.
Hausmann, W., Cords, 211.
Havana, Central Com. of, Hats, 276.
Haverhill Hat Co., Hats, 126.
Haverkamp, Begemann E., Machines, 361.
Havermyer, H., New York, 13.
Haviland & Co., China, 193.
Havnven's Works, Tiles, 229.
Havret, Government of, Galena, 96.
Hawaii, Native of, Idols, 251.
Hawaiian Museum, Minerals, 250.
Hawkes, Geo. F., Gold pens, 130.
Hawkins, A. W., Ornaments, 328.
Hawkins Bros., Stirrups, 154.
Hawkins, John, & Sons, Calicoes, 149.
Hawkshaw, Sir J., Judge, Gr. XXVI., 19.
Hawksworth, Ellison, & Co., Steel, etc., 62.
Hawley, J. R., U. S. Commissioner, 9.
Hawley, R. E., Ornaments, 329.
Haws, A. J., Fire-brick, 107.
Hawsky, Adalbert, Balloons, 205.
Hawzeur-Gerard, Son, Thread, 216.
Hay, G., Salts, 265.
Hay, R., & Co., Sideboard, 188.
Haycock, W., Magnetite, 71.
Hayden, J., Car model, 382.
Hayden, J. H., & Son, Silk thread, 123.
Hayden, James, Shirts, 125.
Hayden, P., Coal, 51.
Hayden & Smith, Harness, 380, 382.
Haydon, W., Alternate, 9.
Hayes, Coulter, & Co., Slate mantels, 52; Range, 375.
Hayes, G. S., Roofing, 378.
Hayes, J. L., Judge, Gr. IX., 16.
Hayes, R. B., Ohio, 13.
Hayes, W. H., Citron, 180.
Haymann Bros., Papers, 198.
Haynes & Jeffries, Bicycles, 383.
Hays, Crossley, & Co., Needles, 151.
Hays, Daniel, Gloves, 126.
Hays, Miss Anna, Sketch, 170.
Hayslip, Jno., Limestone, 72.
Hayward, Armstrong, & Co., Wool, 168.
Haywood, J. S., Belts, 153.
Hazard, R., Rhode Island, 14.
Hazard Powder Co., Powder, 106.
Hazeltine, B. P., Nevada, 13.
Hazleton Bros., Pianos, 332.
Hazrou, Bastard saffron, 304; Seed, 309.
Headlam, C., Wool, 183.
Health Lift Co., Lift apparatus, 336.
Health, Military Park of, Material, 279.
Heap, G. H., Judge, Gr. XI., 17.
Heaps, John Knowles, Violin, 339.
Heaps & Wheatley, Stoves, 148.
Heard & Sons, Design, 336.
Hearne & Harrison, Surveying insts., 342.
Heathcote, T. S., Painted panels, 162.
Hebron, J. L., California, 11.
Hechelman, H. W., Anatomical models, 135.
Hecla Iron & Mining Co., Ores, 48; Iron, 57.
Hector, J., Model, 155; Proceedings, 156.
Hector, T., Map, 342.
Hedengren, A. F., & Son, Stove sets, 226.
Hedlund, J., Metal work, 226.
Hedlund, Joh., Locks, 227.
Heering, Peter F., Cherry cordial, 224.
Heffermehl, L., Carriages, 230.
Hegle, Fortuné, Kid gloves, 126.
Hègle-Glandines & Corbeau, Gloves, 197.

Heidegger, W., & Co., Jewelry, 204.
Heidegger, Wegmann, & Co., Cloth, 212.
Heilbronn, L., Looking glasses, 202.
Heinisch's, R., Sons, Shears, 139.
Heinitz & Seckelson, Fancy papers, 205.
Heinrichshütte, Iron ore, 75.
Heintzmann & Co., Piano, 342.
Heisinger, L., Instruments, 349.
Heister & Gans, Umbrellas, 128.
Hekizan, T., Vases, 245.
Helene, Miss B., Cloak, 300.
Heleni, Fabric, 298.
Héleni, Madame, Laces, 302.
Heleni, P., Hosiery, 300.
Helguero, Genaro S., Sulphur, 263.
Heljestrand, Christoffer, Razors, 227.
Hellendall & Steinberg, Cotton, etc., 203.
Heller & Brightley, Instruments, 329.
Heller & Merz, Ultramarine, 104.
Heller's Sons, Buttons, 209.
Hellmich, F. A., Glass, etc., 209.
Helmer, H., Models, 351.
Help Yourself Association, Plans, 361.
Helsingfors Stenographic Society, Books, 372.
Hematite Iron Works, Ores, iron, 68.
Hémery, Ed., Jewelry, 197.
Heminé, Madame, Cap, 302.
Heminway, M., & Sons Silk Co., Thread, 123.
Hemmings, F. & W., Cocoanut, sea weed, 158; Cotton, 159.
Hemple, J. C., Rubber diaper, 124.
Hemptinne, A. de, Son, Plan, 215.
Hems, H., Statue, 147.
Henderson & Co., Durham axminster, 150.
Henderson & Farrah, Ale, 156.
Henderson, J. P., Ornaments, 328.
Henderson, James, Iron, 56.
Henelly, J., Ale, 164.
Henis, Charles F., Elbow, 375.
Henke Bros., Canes, 254.
Henkels, Geo. J., Furniture, 109.
Hennecart & Co., Papers, 198.
Hennes, A., Method, 347.
Henninger, D., & Co., Soaps, 252.
Hennings, R. T., Methods, 362.
Hennuyer, Books, 343.
Henny, C. O., Glue, 220.
Henny & Moullet, Absinthe, 214.
Henrichs, C. F. A., Lamp, 114.
Henricksen, H., Sewing machine, 224.
Henricksen, J. H., Cod-liver oil, 229.
Henrion, J. J., Woolen stuff, 217.
Henry, A., Rifles, 152.
Henry, Captain, Ores, 67.
Henry, D. F., Meter, 331.
Henry, J., Judge, Gr. XXV., 19.
Henry, J. A., Silk, 196.
Henry, Lepaute, Lenses, 345.
Henry, T. C., Kansas, 12.
Henty & Balfour, Wool, 159.
Henty, E., Wools, 165.
Hepworth, B., & Sons, Wrappers, 150.
Hera, V. de la, Mantas, 275.
Heras, Elena de las, Dress, 277.
Herbelot & Devaux, Laces, 197.
Herbert, Franz Paul, White lead, 207.
Herczinski, W., Harness, 320.
Herczinski, W. O., Cordage, 320.
Herder, L., & Son, Shears, 139.
Heredia, Sons of M. A., Iron, 92.
Herisau Aid Society, Reports, 357.
Herman & Pfister, Hygrometers, 354.
Hermann, Bernhard, Lexicon, 347.
Hermann, L., Materials for perfumery, 193.
Hermann, W., Paintings, 170.
Hermansson, Count C. F., von, Ores, 78; Iron, 79.
Hermant, E., Treatise on ambulances, 218.
Hermes, W., Drawings, 349.
Herminghaus & Co., Cloth, 203.
Hermosa, J., Geography, 266.
Hernandez, D., Cases, 277.
Hernandez, Mrs. A., Shirts, 265.
Hernandez Osa, J., Cloth, 274.
Hernandez, Secundino, Iron ore, 87.
Hernandez, T., Fabric, 281.
Herr, J. C., Ores, 47.
Herreborg, Otto, Fruit, 224.
Herrera, Alfonzo, Fibres, 269.
Herrera, M., Cochineal, 255.
Herrera, Nicolas, Slate, 84.
Herring & Co., Bank vaults, etc., 112.
Herring, Rudolph, Plans, 334.
Herringer, J., Polished stones, 204.
Herrmann, G., Judge, Gr. VIII., 16.
Herrmann, L., jr., Wire goods, 203.
Hertel, C., & Son, Jewelry, 204.
Herth, Henry, Boots, 197.
Herting, C., Paper hangings, 205.
Herts & Co., Chamber suite, 110.
Herve, F., Woolen stuff, 217.
Herzmainska de Slupno, Madame, Music, 371.
Heshuijsen, W. F., Railway switch, 361.
Hess, A., Cooking apparatus, 376.
Hess, Gebr., Colored shirts, 213.
Hess, Math., Toys, 205.
Hesse, George W., Terra-cotta vases, 223.
Hesselbein, S., Embroideries, 204.
Hessenbruch, T., Damper, 375.
Hessenbruch, T., & Co., Cutlery, 206.
Hessrich & Woerffel, Furniture, 316; Jewelry, 318.
Hetfield & Jackson, Carriages, 380.
Hetley, J., & Co., Glass, 147.
Hetoulat, Oil, 313.
Hetsch, Chr., Designs, 224.
Hetzel, J., & Co., Books, 343.
Hetzer, Carl, & Sons, Silk ribbon, 208.
Heully, M., Bonnets, 257.
Heurlin, G. U., & Co., Clothing, 226.
Heuse, E., Gun barrels, 218.
Heustis, R. B., Building sandstones, 72.
Hevvera, Antonio M., Antiquities, 263.
Hewitt, A. S., Finance, 10.
Hewitt, T. G., Oil, 158.
Hewitt, W., Swing, 114; Gun, 152.
Hews, A. H., & Co., Earthenware, 107.
Hewston, G., Judge, Gr. X., 17.
Heyd, Theodoro, Grindstones, 82.
Heydenreych, B. G. P., Starch, 170.
Heydt, F., Polished stones, 204.
Heyl, J. F., & Co., Chemicals, 201.
Heymann & Alexander, Nets, 150; Laces, 151.
Heymann, C., Books, 347.
Heymann, P. W., Butter, 224.
Heywood, Brothers, & Co., Chairs, 112.
Heywood, C. L., & Bruce, J. M., Lamp, 114.
Hibbard, F., Antimony ore, 71.
Hickisson, Mrs. M. A., Ink, 145.
Hickman, James S., Saline water, 74.
Hickory Coal Co., Coal, 51.
Hicks, Geo. C., & Co., Terra-cotta pipe, 107.
Hicks, James Joseph, Instruments, 339.
Hidalgo, State Government of, Argils, 86; Fibres, 265; Woods, 267; Cereals, 268; Cotton, 269.
Hidalgo y Berjano, Ednardo, Salt, 270.
Hieke, A., Buttons, 209.
Hiélard, L., & Co., Flowers, 198.
Hierōnimus, W., Cornices, 148.
Hiess, F., Turners' articles, 210.
Hiester, Chas. Edward, Clubs, 336.
Hietel Bros., Lever, 330.
Higgin, Thomas, & Co., Salt, 144.
Hildebrand & Wolf, Locks, 140.
Hilditch, G. & J. B., Silks, 150.
Hildreth, Milo, & Co., Jewelry, 129.
Hilgard, J. E., Judge, Gr. XXV., 19.
Hill, Albert J., Selenite, 72.
Hill, C. P., Photograph, 342.
Hill, Edwin P., Folding table, 111.
Hill, H. H., Ornaments, 329.
Hill, J. R., & Co., Harness, 381.
Hill, J. W., Clock, 330.
Hill, J. W. R., Carriage, 380.
Hill, M. J., Idaho, 12.
Hill Mfg. Co., Sheetings, 116.
Hill, Walter, Bark, 179; Tobacco, 180.

Hille & Dietrich, Linen cloth, 316.
Hiller, Otto, Mastic roofing, 75.
Hilligmann & Bro., Carvings, 110.
Hillyer, G., U. S. Commissioner, 9.
Hilversumsche Spinning & Weaving Manufactory, Cottons, 220.
Hime, H. L., Copper pyrites, 70.
Hime, L. H., Ores, 71.
Himrod Furnace Co., Iron, 58.
Hinderager Mining Co., Copper ore, 80.
Hindermann & Siebenmann, Method, 353; Lithographs, 358.
Hindman, T., Whiffletree, 382.
Hinds & Sons, Pianos, 333.
Hine, Mrs., Cocoons, 180.
Hinkle & Mayon, Trusses, 135.
Hinks, Wells, & Co., Pens, 152.
Hinrichs, I. C., Publications, 347.
Hinrichsen, W., Toys, 205.
Hinsdale Bros., Kerseys, 120.
Hinsdale, Doyle, & Co., Monuments, 52.
Hinsdill, H. M., Books, 132.
Hinson, Dr., Yacht model, 174.
Hinton, David, Limestone, 52.
Hintrager, M., Plans, 351.
Hinvest, Robt., Hollow bricks, 107, 336.
Hinzen & Rosen, Piano, 333.
Hiogo-ken Local Government, Bamboo, 247.
Hipp, M., Registering apparatus, 354.
Hippisley, A. E., Paintings, 242.
Hipwood & Sutton, Bells, 179.
Hirai Ikkan, Coffee sets, 245.
Hirano, T., Type, 248.
Hirn, A., & Co., Jewelry, 197.
Hirsch, Aron, & Son, Brass tubes, 75.
Hirsch & Merzenich, Chemicals, 201.
Hirschberg, M., & Co., Embroideries, 204.
Hirschfeld Bros. & Co., Lace curtains, 213.
Hirschman, I. M., Labels, etc., 348.
Hirschmann, W. A., Apparatus, 349.
Hirsh & Bro., Umbrellas, 127.
Hirsh, Joseph M., Chemicals, etc., 101.
Hirt, F., Books, 348.
Hirt & Son, Publications, 348.
Hirzel, S., Books, etc., 348.
His Highness Sidi Mohammed Essadok, Minerals, 239.
His Majesty the King of Spain, China, 272; Tapestry, 275; Locks, 279.
Hisern, Joaquin, Hematite of iron, 88.
Hisgen, G. C., Chemicals, 201.
Historical Society, St. Gallen, Reports, 354.
Hitchcock Bros., Sugars, 251.
Hitchcock, D. H. & E. G., Ferns, 251.
Hitchcock, H. R., Ores, 250; Fern, 251.
Hitchcock Lamp Co., Lamps, 114.
Hitchcock, Williams, & Co., Costumes, 150.
Hitz, Chur, Manuals, 354.
Hiyochiyen-sha, Manfy. of porcelain, 245.
Hlawatsch & Isbary, Shawls, 208.
Hlubek, P., Designs, 351.
Ho A Ching, Fans, 242.
Hö Kan Cheu, China, 241; Silks, 242.
Hobart Town Cemetery, Chart, 182.
Hobart Town, Corp of, Photographs, 182.
Hobbs, J. H., Glassware, 108.
Hobbs, S. M., Alternate, 9.
Hobson, E. H., Kentucky, 12.
Hochstätter, H., Matches, 202.
Hockanum Co., Cassimeres, 120.
Hocker, J. H., Tobacco, 180.
Hockings, A. J., Garden manual, 179.
Hockings, A. T., Seed catalogue, 179.
Hodgson Bros., Blinds, 160.
Hodgson, G., Timber, 158.
Hodgson, Richard, Lead, 65.
Hodjaieff, K., Embroideries, 318; Dagger, 319; Harness, 320.
Hoe, R., & Sons, Portmanteaus, 151.
Hoel, J., Spectacles, 345.
Hoemmighaus & de Greiff, Silk velvets, 204.
Hoeppe, C. J., Pianos, 333.
Hofer, J. J., Books, 353.
Hoff, C., Cotton, 159.
Hoff, M. C., Indigo, 157; Coffee, 158.
Hoffman, A. O., Stone, 53.
Hoffman, J., Gloves, 209.
Hofmeister, F., Publications, 348.
Hofors & Hammarby, Blooms, 79.
Hofors & Hammarby Iron Works, Ores, 78.
Hofrichter's Son, J., Imitation stones, 209.
Hofrichter's Sons, Paintings, 211.
Höganäs Coal, Mineral coal, 78.
Höganäs Coal Mining Co., Tiles, 225.
Hogarth, D., Wheat, 183.
Hogg, S. P., & Co., Curry, 160.
Hohner, M., Harmonicas, 349.
Hohwii, A. & T., Chronometers, 361.
Holbrook, J. D., Wines, 168.
Holder, A., Models, 351.
Holdsworth, Edmund W. H., Book, 338.
Holland, B. H., Timber, 170.
Holland, J. C., Needles, 129, 137.
Holland, John, Toothpicks, 128; Pens, 130.
Holland Manufacturing Co., Silk, 123.
Holland, William Thomas, Bricks, 146.
Höller, J. S., & Co., Cutlery, 206.
Holley, A. L., Judge, Gr. I., 15; Mining, 60.
Holley Manufacturing Co., Cutlery, 139.
Hollick & Co., Cement, 61.
Holliday, F. W. M., U. S. Commissioner, 9.
Holm, F. F. W., Furniture, 225.
Holm, F. J. W., Model, 362.
Holman, A. J., & Co., Binding, 132; Bibles, 326.
Holmberg, Eric, Matches, 225.
Holmblad, L. P., Candles, 223.
Holmen's, G. R., Technical Works, Blacking, 229.
Holmes, Booth, & Haydens, Brass, 59; Silver, 113.
Holmes Burglar Alarm Telegraph Co., 331.
Holroyd, Kennedy, & Co., Jams, etc., 183.
Holst, Chr., Chairs, 229.
Holstein, H., Cotton, 251.
Holt, R., Dusters, 119.
Holtermann, B. O., Photographs, 157.
Holton, E. D., Alternate, 9.
Holyoke Paper Co., Paper, 131.
Holzer, William, Glassware, 108.
Homberger Bros., Silk bolting cloth, 212.
Home Dept., Rio de Janeiro, Reports, 366.
Home Industry Society, Report, 357.
Homer, Colladay, & Co., Ladies' wear, 126.
Honegger, G., Movements of watches, 355.
Honeyman, Dr., Rocks, 71; Map, 342.
Honigman, M., & Co., Chemicals, 201.
Honma Takusai, Vases, 248.
Honolulu Iron Works, Drafts, 251.
Hood, A. W., & Son, Soap, 187.
Hood & Co., Chemical preparations, 160.
Hood, F. & J., Malt, 164.
Hook, E. & G. G., & Hastings, Organs, 333.
Hooper, Charles, & Co., Woolens, 149.
Hooper & Co., Carriages, etc., 154, 383.
Hooper & Dodson, Hops, 156.
Hooper, W. E., & Sons, Duck, 117; Twine, 142.
Hoopes, Bro., & Darlington, Wheels, 379.
Hoorickx, G., Chests, 218.
Hooving, W., Dresses, 317.
Hope Co., Shirting, 116.
Hope Furnace, Iron, 58; Ores, 74.
Hope Plantation, Sugar, 175.
Hopewell Quarry Co., Sandstones, etc., 72.
Hôpital de Sacré Cœur, College work, 342.
Hôpital Général, College work, 342.
Hopkin, W., jr., Range, 375.
Hopkins, C., Tools, 138.
Hopkins, J. N., Arizona, 11.
Hopkins & Robinson, Pipes, 128.
Hopkins & Robinson Mfg. Co., Pokes, 143.
Hopkins, W. T., Corsets, 124.
Hoppe, E., & Co., Chromos, 348.
Hopper, C. C., Chamber furniture, 111.
Hopper, J. A., Calabashes, 250.
Horler, John, Soap, 155.
Horn, G., Bandages, 205.

Horn, W. H., & Bro., Trusses, 135.
Hornabrook, C. A., Wines, 168.
Hornbostel, C. G., & Co., Silk goods, 208.
Horne, J., Native woods, 178.
Horner, A., Laces, 209.
Hornig, E. J. R., Models, 351.
Hornig, Julius, Model, 335.
Horsford, E. N., Judge, Gr. X., 17.
Horstmann, Wm. H., & Sons, Yarns, 120; Upholstery, etc., 123; Military goods, 124.
Hosang Foundation School, Regulations, 357.
Hosea, L. M., Ornaments, 329.
Hosford, H., Massachusetts, 12.
Hoskins, J. A., Mississippi, 13.
Hoskins, W. H., Envelopes, 130.
Hosoda, Z., Silk, 246.
Hotchkiss, H. G., Essential oils, 105.
Hotchkiss, L. B., Essential oils, 106.
Hotchkiss's Sons, Shears, 138.
Hotham, Town Council of, Photographs, 162.
Hotta, Z., Bamboo, 247; Tray, 249.
Hottot, A., Pepsin, 192.
Hotz, T., jr., Harmonicas, 349.
Hough & Co., Cast-iron griffins, 378.
Houghton, E. F., & Co., Oils, etc., 103.
Houghton, H. O., & Co., Books, 132, 327.
Houghton, W. D., Wire, etc., 62.
Houlle, Government of, Lentils, 309.
Houpin, E., Merinoes, 195.
Houran, Govt. of, Seed, 307; Sesame, 308.
Hourareau, S., Tobacco, 181.
Houry, T., Furniture, 194.
House & Davidson, Doors, 115.
House of Correction, Boots, 287.
Hover, H. F., Wardrobe, 111.
Hover, J. E., & Co., Inks, 104.
Hovey, F. S., Silks, 122.
Hoving, W., Dolls, 318.
Howard Furnace, Ores, 48; Iron, 58.
Howard, J., Cocoons, 165.
Howard, Jno., Antimony, 64.
Howard, R., & Son, Yarns, 120.
Howard & Sons, Furniture, 147.
Howe, E. C., Florida, 12.
Howell & Bourke, Paper hangings, 133.
Howell & Bros., Papers, 133.
Howell, C. M., Marble monuments, 52.
Howell, S. J., Tweezers, 137.
Howells, Anthony, Coal, 52.
Howes Cave Association, Cement and lime, 54.
Howlett, Onderdonk, & Co., Paper, 131.
Howley, James, Sandstones, 72.
Howry, J., China, 193.
Hoyem, Andr., Iron ore, 80.
Hoyer, J., Plates of crystal, 208.
Hoyt, E. W., & Co., Cologne, 106.
Hoyt, H., Books, 326.
Hoyt, J. W., Judge, Gr. XXVIII., 19.
Hoyt, Jesse, Coal, 71.
Huard, L., Boots, 197.
Hub Publishing Co., Drawings, 381.
Hubbell, J. A., Michigan, 13.
Huber, Allen, Mirrors, 188.
Huber Bros., Organ, 350.
Huber, E., & Co., Silk, 196.
Huber, Jacques, School books, 354.
Hübner, B., Chemicals, 201.
Hubner, N., Boots, 317.
Huckel Sons, I., Hatters' articles, 208.
Huddell & Seitzinger, Coal, 51.
Hudson Bay Co., Furs, 189.
Hudson Bros., Sashes, 157; Timber, 158.
Hudson, James, Coal, 71.
Hudson, R., New Mexico, 13.
Hudson, S., Buckles, 154.
Hue & Co., Crystals, 193.
Huelin & Son, Extract, 271; Baskets, 273; Hats, 276.
Huelva, Mining Engineers of, Copper, 92.
Hüffer, H., Worsted for weaving, 203.
Huffman, Wm., Building stones, 54.
Huggenberger, U., Hosiery, 213.
Hugh, J. B., Drugs, 174.
Hughes, J. C., Kentucky, 12.
Hughes, Thos., & Co., Hosiery, 125.
Huginin Mfg. Co., Supports, 378.
Huguenin, A., & Son, Chronometers, 355.
Hu Kwang, China, 241.
Hu Kwang-Yung, Silks, 242.
Hull, H. J., Ore, 68.
Hull, H. M., Woods, 182.
Hulse, W. W., Judge, Gr. VIII., 16.
Humbert, Ernest, Watches, 355.
Humbert, H., Hats, 151.
Humbert & Heylandt, Jewelry, 204.
Humboldt Iron Works, Tiles, 378.
Humboldt Society, Annals, 267.
Hume, E. B., Wool, 159.
Hume, W. C., Ores, 67.
Hummel, A., Clock, 330.
Humphreys, Ella, Illumination, 110.
Hunderstund & Pries, Engravings, etc., 348.
Hunnewell Furnace, Ores, 49; Iron, 59.
Hunt, A. M., & Co., Powders, 157.
Hunt, R. M., Judge, Gr. XXVI., 19.
Hunt, S. B., New Jersey, 13.
Hunt, T. S., Judge, Gr. I., 15.
Hunt, W., Vehicles, 381.
Hunter, G. W., Tie lifter, 382.
Hunter, James, Monument, 61.
Hunter, Rose, & Co., Books, 189.
Huntingdon & Broad Top R.R. Co., Ores, 50; Iron, 55.
Hurd Coal & Iron Co., Coal, 51.
Hurdal Biri, Glassware, 229.
Huret, N., Carriage, 200.
Hurlbut Paper Co., Paper, 131.
Hurley, Tomás, Granites, 84; Herbs, 259.
Hürlimann, J. J., Swiss honey, 214.
Huron Furnace, Iron ores, 48.
Huron Iron Co., Iron, 58.
Hurst, I. R., Stone, 53.
Hurst, J., Coal, 68.
Hurtado, H., Lead, 265.
Husqvarna Arms Mfg. Co., Arms, 227.
Hussein, Planes, 305; Maize, 308.
Hussein Agha, Carpet, 296; Cane, 303; Cotton, 313.
Hussein Chaban, Z., Jackets, etc., 300.
Hussein Dédé, Honey, 312.
Hussein Effendi, Opium, 304; Hides, 311.
Hussein, Gaat, Prunes, 312.
Hussein, Hadji, Pipes, 303; Hair, 314.
Hussein, O., Pitcher, 292; Toys, 303.
Hussein, Saret, Soap, 291.
Hussey, C. G., & Co., Kettles, 140.
Hussey & Howe Mining Co., Ores, 47.
Hussey, Wells, & Co., Tools, 55.
Hutching & Co., Mattresses, 188.
Hutchings, E. W., & Son, Sideboard, 111.
Hutchinson, A. A., & Bro., Coke, 51.
Hutchinson, John C., Gloves, 126.
Hutchinson, John, & Co., Soda ash, 144.
Hutchison, J. & H., Rugs and mats, 122.
Hutinet, D., Cards, 199.
Hveisel, G., School maps, 223.
Hydrographic Department, Surveys, 367.
Hydrographic Office, Publications, 261.
Hydrographical Bureau, Maps, 373.
Hygienic Products Mfg. Co., Chemicals, 192.
Hyman Bros., Fibre, 251.

I.

Iakob, A., Woolens, 208.
Iaruschka, J., Buttons, 209.
Ibach, R., & Son, Piano, 350.
Ibañez, P., Lime, 84.
Ibañez Palenciano, F., Poplins, 275.
Ibarra & Co., Iron, 92.
Ibarra, José Maria de, Iron pyrites, 88.
Ibarzabal de Eibar, Iron, 277.
Iborna, M., Hats, 276.
Ibrahim, Cotton, 293.
Ibrahim Agha, Cotton, 293; Suit, 299.
Ibrahim Effendi, Carpets, 296.
Ibrahim Effendi, Hadji, Cocoons, 314.

Ibrahim, H., Morocco, 311.
Irbahim Hadji, Pistol holders, 304.
Ibrahim, Miss, Cotton, 293.
Ibrahim, Oglou Ali, Knapsack, 305.
Ibrahim Ousta, Canes, 303.
Ibrahim Ousta, Gimlets, 305.
Ibrahim, T., Table, 292; Scraper, 305.
Ibrahim, U., Morocco, 311.
Ibrahima, Fabric, 298; Handkerchief, 303.
Ichdora, Government of, Ore, 96.
Ichel, Government of, Olives, 307.
Ichida, R., Crapes, 246.
Ichkloura, Government of, Brimstone, 96.
Icrahima, C., Wool, 296.
Ide, Z., Statuettes, 249.
Idiers, E., Cotton fabrics, 216.
Idrissi Agha, H., Cord, 299.
Iglesias, Angel, Book, 267.
Iglesias, J., Soaps, 255.
Iglesias, José Maria, Documents, 267.
Igualada, F., Saddle bag, 273.
Igualadina, A., Linens, 273.
Igualeja, Mining Engineers of, Graphite, 91.
Iida, T., Vases, 245.
Ikebe, N., Crapes, 246.
Ikibe, S., & Oquyama, K., Paper, 247.
Iklé Bros., Embroideries, 213.
Ilagan, G. & L., Feathers, 282.
Ileuriques, A. A., Elastic webs, 289.
Ilias Hatti, Tissue, 293.
Ilias, Hodja, Cottons, 294; Silks, 297.
Illanes, Manuel I., Minerals, 83.
Illias, Manon, Poppy heads, 304; Resin, 306.
Illias, Téné, Madder, 306.
Illinois, Educational Dept. of, 323.
Illustrated London News, Specimens, 338.
Ilustre, G., Beads, 281.
Ilustre, T., Flowers, 282.
Imai Rihei, Images, 249.
Imboden Bros., Wood carvings, 358.
Imboden, J. D., Judge, Gr. XV., 17.
Imhauser & Co., Detector, 330.
Imperial Administration, Tobacco, 309.
Imperial Institute for Blind Boys & Girls, Rio de Janeiro, Books, etc., 366.
Imperial Maritime Customs, Ceramics, 241; Silks, 242; Cereals, 243.
Imperial Rifle Mfy., Rifles, 319.
Imperial & Royal Metallurgy Dir., Ores, 76.
Imperial Technical School, Apparatus, 372.
Inagaki, T., Crape, 246.
Incerti Anselmo, Goods, 234.
Inclán, R., Card-boards, 278.
Ind, G. F., Wines, 168.
Independent Comb Co., Combs, 128.
Indermühle, E. Th., Straw hats, 213.
India Rubber Comb Co., Combs, 127.
India Rubber, Gutta Percha, & Telegraph Works Co., Cables, 339.
Indiana, Educational Dept., State of, 322.
Indian Museum, Ores, 69; Various articles, 185, 186, 187.
Indiana, State of, Ores, 51; Iron, 55.
Industrial Institute of Lisbon, Levels, etc., 369.
Industrial Institute of Oporto, Tools, 289; Charts, studies, 369; Wood, 370.
Industrial School, Albums, 344.
Industrial School Association, Report, 353.
Industry Asso., Krain, Iron and steel, 76.
Industrial Union Co., Coal, 94.
Ineboli, Gov't. of, Yarn, 295; Silk, 297.
Infante Dom Luez Observatory, Charts, publications, etc., 369; Photographs, 370.
Infante, Manuel, Whisky, 262.
Infant School, Knit stockings, 288.
Ingalls, W. G., & Co., Reeds, 332.
Ingersoull, C. R., Connecticut, 11.
Ingham University, Paintings, 321.
Ingold, P. F., Cutters, 355.
Ingram, Wm., Red granite, 72.
Ingoviz, A., Ore, 76.
Inguaggiato, Baron C., Olive oil, 232.
Iniguez, D., Medicinal herbs, 259.
Iñiguez, Manuel A., Limestone, 84.
Innes, J. H., Ore, 68.
Innes, W. M., Cod-liver oil, 155.
Innis, G. S., Limestone, 52.
Inspection General of Woods & Forests, 280.
Inspection of Mines, Minerals, 93.
Inspector-General of Penal Dep't., Boots, 161.
Institute for Deaf & Dumb, Books, etc., 366.
Institution for Deaf Mutes, Report, 354.
Institution for Feeble-minded Children, Reports, 354.
Institution for Instructing Poor, Report, 357.
Institution for Instructing Poor Girls, Report, 357.
Interior, Dept. of, Coat of arms, 251.
Interior, Ministry of the, Public works, 361.
International Bandage-shiff Factory, Bandages, 214.
International Works, Brine, 74.
Inventors' Protective & Benevolent Association of the U. S., Models, 336.
Iowa, Educational Dept. of, 323.
Iowa, State of, Ores, etc., 49.
Ipsamarki, Y., Brandy, oil, 313.
Ipsilanki & Co., Leather, 311.
Irmenbach's successor, Gloves, 209.
Iron Clad Paint Co., Paints, 104.
Ironton Furnace Iron & Steel Co., Ores, 50; Iron, 58.
Irving Bros., Paper, 115.
Irwin Bros., Wine, 180.
Irygoyen, C. O. de, Mat, 258.
Isaac, Shoes, 301.
Isaac, A., Skin, 311.
Isaac Agha, Curtain, 292; Stand-cover, 302; Saws, 305.
Isaac, H., Lentils, 309.
Isaac, M., Garment, 299.
Isaacs, J. C., Idaho, 12.
Isaacs, M. C., & Co., Brushes, 142.
Isaura, F. de Paula, Apparatus, 272.
Isella, P., Painting, 211.
Ishioka, S., Trays, 245.
Iskilechina, Ticking, 294.
Iskilidjan, Cottons, 293; Towels, 295.
Iskilidjan, Napkins, 302.
Isklip, Government of, Scammony, 306.
Isler, Aloyse, & Co., Hair plats, 213.
Isler, Jacob, & Co., Straw goods, 213.
Ismael, A., Vest, 300.
Ismail, Cup, 303.
Ismail Agha, Counterpane, 299; Barley, 308; Vetch, 309; Leather, 311.
Ismail, Cherishor, Gum, 306.
Ismail, E., Barley, 308; Skin, 311; Cotton, 314.
Ismail Hadji, Wheat, 308; Leather, 311.
Ismail Irahim, Pipe, 303.
Ismail Ousta, Goblets, 292; Bowls, 303.
Ismail, Tchataldja, Wheat, 308.
Ismaila, Pipe, 303.
Ismaila Hadji, Barley, 308.
Ismyrnopola, Héleni, Cloth, 302.
Isnardi, P., Olive oil, 232.
Isphakanopola, Aspasia, Cloth, 302.
Ispiro, Syrups, 313.
Issleib & Rietzschel, Books, 348.
Issmayer, J. A., Toys, 205.
Istiphanidja, Gauze, 299.
Itabapoana, Baron of, Chair, 252.
Ith, Cups and saucers, 292.
Ithaca Calender Clock Co., Clock, 330.
Ito, T., Silk dress, 246.
Iturbe, F., Pharmaceutical preparations, 259.
Ivanhoe Manufacturing Co., Paper, 131.
Ivanoff, N., Silver plate, 316.
Ivanoff, T., Photograph, 319.
Ivers, W. H., Piano, 333.
Ives, Blakeslee, & Co., Toys, 128; Garters, 129.
Ives, H. R., Hardware, 190.
Ives Patent Lamp Co., Lamps, 114.
Ives, W. A., & Co., Augers, 138
Ivins & Bro., Walnut bed, 121.
Ivins, Dietz, & Magee, Carpets, 122.
Ivison, Blakeman, Taylor, & Co., Books, 326.
Iwada, H., Bamboo, 247.

Iwahashi, K., Household ware, 245.
Iwai, Z., Fans, 246.
Izu-kura, K., Watch guards, 246.

J.

Jaap, John, Essence, 145.
Jaccard, Eugène, Engraved plate, 213.
Jack, J., Wheat, 163.
Jackfish Lake Gold Mining Co., Quartz, 70.
Jackson, C., Clay, 73.
Jackson Co., Cotton goods, 117.
Jackson Furnace, Ores, 48; Iron, 58.
Jackson, Samuel C., Silverware, 127.
Jackson & Sharp Co., Cars, 382.
Jackson, Wm. H., & Co., Grates, 139.
Jacobini, Raffe, & Giobbe, Jewels, 234.
Jacobs, C., Idaho, 12.
Jacobs, Poelaert, & Co., Blankets, 217.
Jacobs, S. W., & Son, Carriages, 380.
Jacobs, Strouse, & Co., Corset clasps, 124.
Jacobsen's, O., Mech. Works, Mangle, 229.
Jacobson & Anderson, Gloves, 226.
Jacoby, M., & Co., Curtains, 151.
Jacoby, Theo., Hats, 126.
Jacot Bros., Chronometers, 355.
Jacquand, Father & Son, Glue, etc., 192.
Jacquemin, Costumes, 198, 343.
Jacquot & Co., Blacking, 193.
Jäenecke Bros. & F. Schneemann, Inks, 202.
Jaeschke, G., Tobacco, 158.
Jager, G., Harmonicas, 349.
Jager, J., Harmonicas, 349.
Jäger, Jb., & Co., Wood carvings, 358.
Jagn, N., Apparatus, 372.
James, J. O., Finance, 10.
James, Samuel, Color stand, 130.
Jamison, W. W., Wool, 337.
Jamme, A., Thread, 217.
Janentzky & Co., Artists' materials, 130.
Janeway, H. L., New Jersey, 13.
Janin, Magnets, 345.
Jansen, Bodek, & Hertz, Satins, 212.
Jansen, J. W., Cloths, 203.
Janson, J. H., & Co., Soda water, 95.
Jaques, Adank J., & Co., Musical box, 355.
Jarboe, J. W., Paint composition, 105.
Jarves & Hooper, Charcoal, 55.
Jatta, A., Olive oil, 232.
Jaubert, Audras, & Co., Silks, 196.
Jaudin & Duval, Foulards, 196.
Jaumandreu & Co., Prints, 273.
Jean, E. de, Iron and tools, 218.
Jeandron-Ferry, Shoes, 197.
Jeanjaquet, Chs., Watch springs, 355.
Jeannisson, Lewis, & Son, Gloves, 126.
Jeantaud & Co., Wheels, 199.
Jefferson Furnace Co., Ores, 48; Pig iron, 58.
Jeffords, J. E., & Co., Lava wares, 107.
Jeffrey & Co., Decorations, 152.
Jeffreys, C., Mirrors, 147; Cases, 152.
Jemmapes Forge, Foundry, & Rolling Mill Co., Tramway rails, 77.
Jenkinson, A., Glass, 147.
Jennings, A. W., Washers, 377.
Jennings Bros., Paper, 143.
Jennings, G., Pipes, 146; Lavatories, 148.
Jennings, P. A., Rug, 157; Platypus, 158.
Jennings, T., Calcined magnesia, 144.
Jennings, Wm., Utah, 14.
Jennison, W. A., Violin, 333.
Jenny, Miss, Farina, 184.
Jensen, H. J., Books, 364.
Jernberg, S., Latches, 227.
Jersey City Crucible Mfg. Co., Crucibles, 54.
Jervis, John B., Engineering drawings, 335.
Jessop, Wm., & Sons, Steel, etc., 62.
Jessup & Moore, Paper, 131.
Jesus, M. V. de, Pharmacies, 283.
Jeuch, Caspar, Plans, 356.
Jevleff, A., Frames, 316.
Jewett, John, & Sons, Oil, lead, 103.
Jgoomnoff, Furniture, 316.
Jiami Joyen, Fans, 247.
Jimenez de Garcia, A., Pitchers, 272.
Jirnenez, Julio, Treatise, 267; Wood, 268.
Joachimsthal, Metallurgy and Mining Administration, Meteoric specimens, 76.
Joao, A., Ceramics, 284.
Jo-Ami Heishiro, Fans, 247.
Johst, F., Chemicals, 201.
Johann, A. F., Chemicals, 201.
Johansson & Carlander, Calicoes, 226.
Johns, H. W., Roofing, 115; Tacks, 142.
Johnson, Black, & Co., Stoves, 375.
Johnson Bros., Varnishes, 145.
Johnson, C. J., Galena, 71.
Johnson, Chas. Eneu, & Co., Inks, 105.
Johnson & Co., Terra-cotta, 145.
Johnson, A., & Co., Springs, 227.
Johnson, E., Twines, 116.
Johnson, E. S., Toothpicks, 127; Pens, 130.
Johnson, Edmund, Catalogues, 339.
Johnson, F. C., Alternate, 9.
Johnson, Henry M., Kalsomine, 105.
Johnson, J., Drawings, 334.
Johnson, J., & Co., Boxes, 151.
Johnson, J. M., Implements, 229.
Johnson, J. M., & Sons, Tablets, 338.
Johnson, J. R., Nevada, 13.
Johnson, Jabez, & Fildes, Fabrics, 148.
Johnson & Lund, Teeth, 136.
Johnson, Matthey, & Co., Platinum, 61.
Johnson, T. & J. W., & Co., Books, 327.
Johnson, W., Tools, 137.
Johnston, E. S., Cornices, 113.
Johnston, H. J., Painting, 161.
Johnston, J., Sugar, 180.
Johnston, J. S., Wines, 164.
Johnston, W. & A. K., Maps, 338.
Johnstone Bros., Ore, 63; Umber, 155.
Johnstone, J., Drawings, 342.
Johnstone, O'Shannessy, & Co., Photographs, 162.
Joint Stock Association for Mining, & Lead & Zinc Manufacture, Ores, 75; Iron, 75.
Joint Stock Association of Looking Glass Manufacturers, Looking-glass plates, 202.
Joint Stock Co. for Manufacturing Bronze Goods, Bronze chandelier, 202.
Joint Stock Co. for Telegraph Supplies, 349.
Joint Stock Playing Card Mfy., Cards, 205.
Joliette College, College work, 342.
Jolivet, L., Wax tapers, 192; Candles, 194.
Jolsens, H., Matches, 229.
Joly, H. G., Judge, Gr. IV., 16.
Jones, F., Ashes, 255.
Jones, G. W. C., Fern, 251.
Jones, H. C., & Co., Handles, 380.
Jones, J. A., Refrigerator, 115.
Jones, J. M., & Co., Cars, 382.
Jones, P., & Co., Wheels, 379; Sulky, 381.
Jones, Pryce, Shawls, 150.
Jones, T. R., & Co., Copper ore, 70.
Jongh, S. J. de, Snuff, 170.
Jönköping Match Mfg. Co., Matches, 225.
Jordan, C., Cod-liver oil, 229.
Jordán, J., & Sons, Cloth, 274.
Jordana & Morera, Apparel, 282.
Jorge de la Peña, Peat, 270.
Jorn, E., Sauces, 164.
Joseph, V., Oil for burns, 192.
Joslin, Palmer, & William, Jewelry, 129.
Joslyn, J. H. L., Roofing, 73.
Jossa, N., Judge, Group I., 15.
Jottrand, A., Judge, Group I., 15.
Jouaust, D., Books, 343.
Joubert, W. A., Wine, 171.
Jourvie, J. A., & Co., Waters, 74.
Jouvin & Co., Gloves, 197.
Jouvin, Mrs. Xavier, Gloves, 197.
Joveneau, A., Cocoa, 218.
Jovér, Francisco, Building stone, 89.
Joy, C. A., Judge, Group III., 15.
Juarez, T., Hemp, 269.
Juarreña Society, Coal, 89.
Judd, Hubert L., Hardware, 141.

Judge, J. F., Ornaments, 328.
Judice, V. A. J., Chemicals, 283.
Judson Bros., Shirts, 124.
Judy, W. W., Game birds, 337.
Jugla, D., Gloves, 197.
Jujui, Government of Prov. of, Silver ore, 84.
Jujui, Prov. Commission of, Salt, 255; Wool fabrics, 257; Hats, 258; Harness, 260.
Julià y García, Nuñez, Soaps, 271.
Julien, A., & Co., Chemicals, 192.
Julien & Son, Dyed stuff, 255.
Jullien & Gauthey Bros., Cartridges, 199.
Jumeau, F., Dolls, 198.
Jung, E., Photographs, 356.
Jung, O., Wines, 164.
Jung & Simons, Cloth, 203.
Junge, A., Spring mattress, 111.
Jungler, A., Amber, 75; Coins, etc., 350.
Juparana, Baron of, & Nogueira da Gama, Calcareous specimens, 82.
Jurgenson, P., Music, 372.
Jurie, A., & Co., Silks, 196.
Jury, F. H., Carriage, 381.
Just, T. C., Ores, 68.
Justi, H. D., Tools, 136.
Justice of Peace, Patagones, Gypsum, 84.
Justice of the Peace of Ensenada, Lime made from shells, 84.
Justice of the Peace of Zarate, Clays, 85
Juta, J. C., & Co., Books, 169.
Juvet, L. P., Globe, 330.
Jvanitzki, L. J., Flooring, 316.

K.

Kaberg, C A., Paper, 227.
Kachoken, A., Vases, 245.
Kachomla, C., Beans, 309.
Kachpi, Z., Calicoes, 294.
Kadir Oglou Abdul Kader, Cover, 298.
Kaehler, Otto, Skins, 129.
Kaeseberg, H., Wood cuts, 348.
Kaeser, P., Engravings, 211.
Kafemann, A. W., Books, 348.
Kaffel Bros., Furniture, 194.
Kaga Association for the Encouragement of Manufactures, China, 245.
Kahlbaum, C. A. F., Chemicals, 201.
Kaines, J. H., Wines, 168.
Kaiser, Dr., Table, 353.
Kaiser & Herzog, Decorative painting, 110.
Kaiserslautern Ultramarine Works, Chemicals, 201.
Kaisparexeko & Co., Cotton, 293.
Kaitakushi Department, Ores, 244.
Kalden, Baron of, Linen goods, 253.
Kaldenberg, Fred. Julius, Pipes, 128.
Kaliakin, J., & Sons, Knives, 319.
Kallinge Iron Works, Nails, etc., 228.
Kaltenbach, L., Clocks, 349.
Kama Armor Plate Works, Armor plates, 98.
Kamaipelekane, E. P., Bed, 250.
Kamaroff, M., Embroideries, 318.
Kamenstchikoff, T., Embroidery, 318.
Kamil, Gauze, 299.
Kamile, Madame, Napkin, 302.
Kämpffe, G., Musical instruments, 349.
Kamps, O., Woolen fabric, 295.
Kanaya Gorosaburo, Vases, 249.
Kandi Bros., Snuff, 309.
Kandilaphtaki Mehemeda, Silk, 297.
Kane, J. K., U. S. Commissioner, 9.
Kanitz, E., Judge, Gr. X., 17.
Kann & Sons Mfg. Co., Spoons, 113.
Kanokoshosha, The, Crapes, 246.
Kanzan Denshichi, Pitchers, 244.
Kapena, J. M., Sugar cane, 251.
Kappel & Bro., Furniture, 252.
Kaps, E., Piano, 350.
Kara, P., Skin, 311.
Karabet, Belt, 299; Inkstands, 304; Seeds, 307; Brandies, 313; Cocoons, 314.
Karabet Agha, Skins, 311.
Karabet, K., Carpet, 296.
Karabet, M., Thread, 295.
Kara-Hissar, Government of, Galena, 96; Iron, 97; Alum, 291; Spoons, 293; Belt, 299; Sumac leaves, 306; Wheat, 308.
Kara Issalé, Govt. of, Plant, 304.
Kara-Issali, Gov. of, Skin, 311; Leaves, 306.
Karasch Oglou, Thread, 295.
Kara-Tach, Government of, Poutargue, 304.
Karcher's, Dan. M., Sons, Sideboard, 110.
Karelin, T., Embroidery, 318.
Karkali, D., Fabrics, 298.
Karlowicz, J., Method, 372.
Karlskrona Galvanizing Stock Co., Iron, 228.
Karlson, Gust, & Martin, Grindstone, 78.
Karraissalo, Government of, Cotton, 294.
Karrer & Co., Musical boxes, 355.
Karrer, S., Musical boxes, 355.
Karssendi, Govt. of, Galena, 96; Iron, 97.
Kashiu, S., Vases, 244.
Kasseudje, G., Pipe, 303.
Kasson, W. M., 336.
Kataloff, B., Brassware, 319.
Katayama, G., Ornaments, 247.
Kater, Th., Pianos, 342.
Kato Gosuke, Cups, 244.
Kaufmann, A. & C., Collars, 204.
Kauffmann, C., Coverlets, 203.
Kavilian, Stépan, Wheat, 308.
Kawaiahao Female Seminary, Necklaces, 250
Kawamoto Masukichi, Vases, 245.
Kawamura, Y., Cloths, 245; Cup, 249.
Kawanabe Giosai, Picture, 249.
Kawara-bayashi, Hidekuni, Jug, 249.
Kay & Bro., Books, 328.
Kayod, H., Seed, 310.
Kazejeff, S., Army cloth, 316.
Kazikli, Government of, Anise seed, 310.
Keach, G. W., Wool, 183.
Kealoha, Kapa, 250.
Kearney, E. S., Washington Ter., 14.
Keasbey & Mattison, Pills, etc., 101.
Keates, F., Wheat, 180.
Kees, E., Fans, 198.
Kehoe, L., Books, 328.
Keigel, Auguste, Equalizing machine, 358.
Keizer, C., & Son, Furs, 189.
Keller, A., Silk, 233.
Keller & Alt, Clothing, 208.
Keller, Conrad, Toys, 205.
Keller, F., Linen goods, 253.
Keller, H., Jewelry, 204; Map, 353.
Keller, Heinrich, Son, Herbarium, 349.
Keller Mfg. Co., Quart measure, 376.
Kelley, Ezra, Machine oils, 103.
Kelley, G., Implements, 328.
Kelly, Dr., Wines, 168.
Kelly, J., Stones, 73.
Kelly, M., Wheat, 163.
Kelly, S. S., Pendants, 114.
Kelly, T., Bibles, 327.
Kelsey, J. E., Hops, 167.
Kelty, G. L., & Co., Gimps, fringes, etc., 123
Kemer Kirkor, Almonds, 307.
Kemp, G., Wheat, 183.
Kemp, W., Mats, 167.
Kemperling, H., Turners' articles, 210.
Kemperling, J., & Sons, Ribbons, 208.
Kendi Oglou Trantchi, Fabrics, 295, 298.
Kenidje, Govt. of, Tobacco, 309.
Kennard, M. P., Judge, Gr. XI., 17.
Kennedy Bros., Coal, 63; Fire bricks, 155.
Kennedy, J. M., Alabama, 11.
Kennedy, Thos., & Bro., Wax figure, 126.
Kensett, J. W., Fireproof appliance, 378.
Kent, D. H., & Co., Hardware, 379.
Kent, G., Knife cleaner, 148.
Kent, G. B., & Co., Mirrors, 148; Knives, 151 Brushes, 153.
Kent Woolen Co., Cassimeres, 120.
Kentucky Geological Survey, Minerals, 48.
Kenzo, E., Judge, Gr. IV., 16.
Kenzo, H., Judge, Gr. IX., 16.
Keppler & Bro., Chairs, etc., 253.

Keranche Oglou, Wax, 312.
Kerbel, G. H., Model, 361.
Kerbella, Government of, Cotton, 294; Fans, 303; Opium, 304; Rice, 308; Cotton, 313.
Kerénié, Government of, Wool, 296.
Kerim, S., Carpet, 296.
Kerkhoven, R., Painting, 221.
Kerl's, F. A., Heir, Plated ware, 208.
Kermode, W. A., Freestone, 63; Salt, 182.
Kern, Clara, & Lang, Chair, 252.
Kern, H. G., Instruments, 136.
Kern, I. U., Books, 348.
Kern, J., Drawing instruments, 354.
Kerr, Hugh S., Brushes, 142.
Kerr, N. M., & Co., Paper boxes, 132.
Kerr, W. C., Judge, Gr. IV., 16.
Kersch, M., Garnet articles, 209.
Kerschove, Government of, Iron, 97.
Kesban, Madame, Cotton, 293; Holder, 303.
Kessiar, Pipe, 303.
Ketcham, E., & Co., Tin, 377.
Ketchum, E. K., Shale, 71.
Ketterer, B., Sons, Clocks, 349.
Keuffel & Esser, Instruments, 329.
Keur Ali, Pitcher, 293.
Kew, W., & Son, Buggy, etc., 383.
Key, A., & Retzius, G., Periodical, 362.
Key, Alex., Treatise, 362.
Keyes, W. S., Judge, Gr. I., 15.
Keyless Padlock Co., Locks, 142.
Keynes, J., Wool, 168.
Keys, J., Coal, 51.
Keystone Bridge Co., Iron columns, 56.
Keystone Flint Glass Co., Glassware, 108.
Keystone Furnace Co., Ores, 49; Iron, 58.
Keystone Hardware Mfg. Co., Hardware, 141.
Keystone Paint Co., Paint filler, 104.
Khalil, Agha, Wool, 314.
Kharlamoff, M., Statuary, 315.
Khitroff, J., Book, 372.
Khreneff, P., Frame, 316.
Kiamil Effendi, Sextant, 371; Spoons, 305.
Kicho, Dimitri, Linen, 295.
Kidder, J., Apparatus, 331.
Kiehnle, A., Jewelry, 204.
Kiendl, A., Citherns, 351.
Kier Bros., Fire clay, 54; Bricks, 107.
Kikuchi-Kuhei, Chairs, 245.
Kikuchi Yosai, Picture, 249.
Kilburn, I. B., Woodwork, 379.
Kilby, R. H., Rifle, 190.
Kilgore, D. Y., Blinds, 113.
Kilgoren Bros., Paper bags, 189.
Kilian Bros., Easels, etc., 110.
Killam, H., & Co., Carriages, 381.
Killgore, J. L., Bedstead, 111.
Kilner Bros., Glass, 147.
Kilner, J., Pianos, 341.
Kimball, C. P., Alternate, 9.
Kimball, W. S., Refrigerator, 376.
Kimbel & Cabus, Decorations, 110.
Kimbel, M., Furniture, 202.
Kimes, J. B., & Co., Slate mantels, 52.
Kimpton, Thomas, Sound communicator, 339.
Kimura, G., Crapes, 246.
Kimura, H., Tableware, 245; Tablets, 247.
Kimura, T., Fans, 247.
Kindergarten, Reports, 353.
King, Alexander, & Co., Rum, 172.
King Bros., Gas retorts, 146.
King & Brown, Boots and shoes, 189.
King Iron Bridge & Mfg. Co., Bridge, 334.
King, J., & Son, Tools, 137.
King, J. M., & Co., Stock and dies, 142.
King, P. G., Ores, fossils, 64; Wool, 159.
King Phillip Mills, Sheetings, 116.
King, T. H., Stones, 53.
King, William, Cloths, 149.
King, Wm., Son, & Co., Petroleums, 102.
Kingsbury, F. J., Connecticut, 11.
Kinkozan-Sobei, Vases, 244.
Kinross & Co., Cordage, 155.
Kinsley, E. W., Massachusetts, 12.
Kipling's, R., Sons, Jewelry, 127.
Kirby, Beard, & Co., Pins, 151.
Kirchhof's, C. F., Sons, Refrigerators, 208.
Kirchner, Wines, 180.
Kirchner Bros., Strings, 351.
Kirio, Buttons, 302.
Kiriu-Kosho-Kuwaisha, Ink, 244; Porcelain, 245; Silk, 246; Brushes, paper, 247; Music, 248; Bronze, 249.
Kirkman, J., Doeskins, 120.
Kirkor, Pincers, 305.
Kirkor, A., Terra-cotta, 292.
Kirkor, Avakir, Mulberry paste, 312.
Kirkor Effendi, Alcohol, 313.
Kirkor, M., Fabrics, 298.
Kirkor, T., Earthenware cup, 292.
Kirkora, Wool, 314.
Kirkpatrick Quarry, Limestone, 72.
Kirkwood, Hon. S., Iowa, 12.
Kirmayer, M., Map, 348.
Kirschwasser Company, Liquor, 214.
Kishi Seppo, Picture, 249.
Kisin, Government of, Chrome, 292.
Kitaizteff, W., Boots, 317.
Kitchen & Sons, Candles, 160.
Kithil, A., Toys, 205.
Kittaning Coal Co., Coal, 51.
Kittarg, M., Fluid, 373.
Kittary, M., Judge, Gr. X., 17.
Kittelsen, Jens, Valises, 230.
Kittle, S. P., Spring mattresses, 110.
Kittredge Cornice & Ornament Co., 143
Kiyork, Dellale Oglou, Wool, 314.
Kiyoto, Chemical Laboratory of, Water, 244.
Kiyoto-Fu, Paper, 247.
Kjerulf, T., Judge, Gr. I., 15.
Klammerth, Alois, Earthenware, 207.
Klappenbach, S. de, Embroidery, 258.
Klautsheck, Thomas, & Stewart, Glass, 108.
Kleeberg, Leather, 318.
Kleeberg, H., Books, 319.
Kleeman, C. A., Lamps, 202.
Klein Bros., Models, 351.
Klein, E., Watch springs, 355.
Klein, J. F., & Son, Wood carvings, 358.
Klein, Logan, & Co., Picks, 138.
Klemetsen, Chr., Fittings, 229.
Klemmings Antiquarian Stock Co., Books, 362.
Klingenberg Bros., Publications, 348.
Klintberg, J. W., & Co., Jewelry, 226.
Klippel & Bro., Hides, etc., 254.
Kluge & Pöritzsch, Chemicals, 201.
Klunzinger, P., Plans, 351.
Knabe, W., & Co., Pianos, 333.
Knapp, A. E., Bible, 328.
Knauff, T. O., Organs, 333.
Knell, George, Chairs, etc., 109.
Knepper, W., Cigarette paper, 210.
Kniaz Mikhaeloff's Crown Copper Works, 319.
Kniaze Michailoffi Steel Works, Ores, 98.
Knight, B. B. & R., Cotton goods, 118.
Knight, E., Maine, 12.
Knight, E. H., Judge, Gr. XXII., 18.
Knight, H. G., Massachusetts, 12.
Knight, J. G., Ornaments, 166; Weapons, 167.
Knight, Miss M., Bedstead, 147.
Knight, W. A., Health lifts, 336.
Knight & Widden, Plaster, 55.
Knipp, T. F., Album, 205.
Knodchen, J. A., Clay ware, 202.
Knops, A., Cloths, 203.
Knott, J., & Son, Piano, 342.
Knowles, J. A., Baskets, 173.
Knox & Shain, Instruments, 329.
Knox Woolen Co., Feltings, 119.
Knox & Wrothwell, Buggy, 383.
Knüsli, Caspar, Lithographs, 358.
Kobu-sho, Bricks, 244.
Koch, A., Harmonicas, 349.
Koch, Alex., Plans, 356.
Koch & Bein, Castings, 206.
Koch & Bergfeld, Jewelry, 204.
Koch, M., Shawls, 208.
Koch, Sons, & Co., Albums, 128; Cases, 131.
Kochaf Ajediz, Cocoons, 314.

Kochi-ken, Local Government of, Paper, 247.
Kochowski, Educational, 372.
Kochs, Gustav, Rope, 206.
Kodan, Bed covers, 295.
Kodja Osman Agha, Knife, 305.
Koechling, B. H., Chairs, 110.
Koehler, C., Chromos, 348.
Koening, R., Apparatus, 345.
Koepp, R., & Co., Chemicals, 201.
Koester, C. F., Kansas, 12.
Kohl, A., Hose, 211.
Köhler & Co., Playing cards, 227.
Kohler, I., Publications, 326.
Kohler, Ignatius, Bookbinding, 132.
Kohler, M., Knee rest, 137.
Kohn, J. & J., Furniture, 208.
Kohn, Tobias, Braids, 123.
Kojimo, T., Thread, 246.
Kokosing Oil Co., Lampblack, 104.
Kolb, G. F., & Sons, Cases, 129.
Kolb & Schüle, Fustian, 203.
Kolbe, D. W., Artificial limbs, 136.
Koliopoula, Maria, Embroidery, 302.
Kolkow, F. J. von, Photographs, 360.
Komaroff, M., Covers, 317.
Komaroff, N., Dress, 318.
Kommichau, G., Woolen goods, 316.
Kompff, Ph., Drums, 334.
Komura, S., Model, 248.
Kondour, Hadji, Syrup, 312.
Kondrasheff Bros., Silk, 317.
Kondratoff, D., Knives, 319.
Kongsberg Silver Mines, Ores, silver, 89.
Koniah, Government of, Brimstone, 96; Inkstands, 304.
König, J. C., & Ebhardt, Account books, 205.
Konshin, J., Cotton yarn, 316.
Koolemans-Beijnen, C. J. L., Pottery, 220.
Koolikoff, N., Musical instruments, 373.
Koomanin, N., Books, 319.
Koorikoff, P., Harness, 383.
Kooser, B. P., Alternate, 9.
Koovajeff, C., Printed goods, 316.
Koozmin, G., Weapons, 319.
Koozmin, T., Cutlery, 319.
Kopsch, H., Porcelain, 241.
Koraczewski, G., Shoes, 204.
Koran-Sha Porcelain Mfy., Cups, etc., 244.
Korb, V., Silk laces, 209.
Körner & Co., Lamps, 202.
Korniloff Bros., China, 315.
Koroleff, A., Potassa, 315.
Koroleff, B., Embroidery, 318.
Koroleff, L., Embroidery, 318.
Kortkampf, F. R., Books, 348.
Koseki, I., Braids, 246.
Koshima, J., Oil, 244.
Kotomin, A., Models, 372.
Kottmann, J., Cigars, 214.
Kotzmann, E., Umbrellas, 318.
Koudour Hadji, Oils, 291; Pipes, 303.
Koular Oglou Mehemed, Poutargue, 304.
Kournik Ala Agha, Apricots, 312.
Koussou Kirkor, Sheeting, 293.
Kouyoumdjou, Epsso, Box, 303
Kouyoun Oglou, Gum, 306; Seeds, 310.
Kowalski, Educational, 372.
Koyondja, Govt. of, Marble, 94; Plant, 304.
Koyoun, Andonik, Brandy, 312.
Kozan-riyo, Mining Dept., Ores, 244; Report, 248.
Kozon, A., Cotton, 313.
Kraft, E., & Son, Instruments, 351.
Kramar, J. H., Lanterns, 114.
Kramsta von Sosnowee Zinc Works, 315.
Kranich & Bach, Pianos, 334.
Krasinski, H. N., Preparations, 372.
Krasnostchekoff, P., Faience, 315.
Krassoski, A., Books, 372.
Kratova, Government of, Coal, 97.
Kratzschmar, F., Lithographs, 348.
Kraul & Bier, Jewelry, 204.
Krauliz, M., Photograph frames, 208.
Krause, Frederick W., Gothic chairs, 109.
Krause, H., Maps, 336.
Krebs, F. E., Gloves, 204.
Krehan, I., Buttons, 210.
Kreidl, A., Apparatus, 351.
Kreischer, B., & Son, Clay, 54; Bricks, 107.
Kreitzer, M. C., Perfumery, etc., 101.
Krelage, J. H., Pamphlets, 360.
Kremer, C., Furniture, 188.
Kressner, L., Pathological tables, 348.
Kressten, Apparatus, 372.
Krestovnikoff Bros., Candles, 315.
Kreuger, P. E., & Jennings, Matches, 225.
Kreuter, F., Tachometer, 351.
Krider, J., Guns, 134.
Krider, P. L., Silverware, 111.
Kriegelstein & Co., Pianos, 345.
Krins, E., Wood carvings, 216.
Krishtafovich, P. C., Bricks, 315.
Kroedel, F., Chronometer, 329.
Krogstad Society, Nails, 230.
Krol, W., Bandages, 221.
Kropp, J. B., Cotton and mixed goods, 203.
Krug, J. M., Jewelry, 204.
Krull, E., Tallow, 251.
Krumbügel, O., Jewelry, 318.
Krupp, Fr., Ores, 75; Cannon, 205.
Kubik, J., Gloves, 209.
Kuhli, G. G., Straw, 234.
Kudelsky, Helen, Gloves, 317.
Kuebler, W., Instruments, 329.
Kuehn, F., Wisconsin, 14.
Kuehn, H., Patterns, 204.
Kuhlmann, J. F., Judge, Gr. III., 15.
Kühn's Wire Factory, Metal leaf, 202.
Kuhne, W., Basket ware, 230.
Kuhnel, P., Globe, 329.
Kullberg, Victor, Chronometers, 339.
Kullgren's, C. A., Widow, Granite, 78; Presses, 226.
Kumagai, K., Halberds, 247; Vases, 249.
Kunheim & Co., Chemicals, 201.
Kuntze & Co., Refrigerators, 226; Telegraphs, 363.
Kunz, Heinrich, Dwellings, 357.
Kunzig, C., Carriage mountings, 379.
Kupka, P. F., Judge, Gr. XXV., 19.
Kurdju, H., Skin, 311.
Kurjut Casmat, Skins, 311.
Kurlbaum & Co., Chemicals, 102.
Kurr, Schuttner, Jewelry, 204.
Kurschu Casmad, Jacket, 299.
Kursheedt & Co., Embroideries, 126.
Kutchuk Ali Agha, Wheat, 308.
Kuwangiyo-jo, Silk, 246; Fans, 247; Photographs, 249.
Kuwangiyo-Riyn, Clay, 244; Lanterns, 245; Crystal, 246; Paper, 247.
Kuwangiyo-Riyo-Shi-ken-jo, Table, 245.
Kuwappankiyoku Government, Plates, 249.
Kuzel, J., & Jankowski, C., Turners' articles, 210.
Kyle Coal Co., Coal, 51.
Kyshe, J., Mauritius almanac, 178.

L.

La Belle Glass Co., Glassware, 108.
La Beneficencia Factory, Cottons, 265.
Labisky, Mrs., Water color, 267.
Labonia, B. G., Liquorice, 231.
La Bonne Intention Plantation, Sugar, 175.
Laboratory of Egypt, Chemicals, 236.
Laboulaye, C., Dictionary, 343.
Labriola, L., Tortoise shell, 234.
La Buena Fé Society, Galena, 88.
Lacey, R. G., Rocket, 145; Signal, 339.
Lachard Bros., Silks, 196.
Lachenal, Favre, & Co., Stereoscopes, 345.
Lachite, Government of, Sponges, 310.
La Cierva, Corporation of, Marble, 90.
Lackawanna Iron & Coal Co., Ores, 48; Steel, 57.
Lacmann, J., & Sons, Doll bodies, 127.

La Cointe, E., Problem, 343.
Lacombe, Glasses, 345.
Laconia Co., Sheetings, etc., 117.
Lacoria, F., Essences, 232.
Lacour, G., Orthopedic apparatus, 259.
Lacroix, A., Colors, 193.
Lacroix Bros., Papers, 198.
Lacy, W., Cooking shell, 376.
Ladd, S. J., Thimbles, 129.
Laemmert, E. & H., Books, 366.
La Familia Society, Galena, 88.
Laffite & Co., Galena, 87.
Laffiteau & Kieger, Arms, 199.
Laflin & Rand Powder Co., Apparatus, 331.
Lafone Quevedo, S. A., Copper, clay, 85; Ashes, 255; Herbs, 259.
Lafquist, J. A., Irons, 226; Hinges, 227.
Lagaut, N., School materials, 343.
Lagerbäck, H., Locks, 227.
Lago, E. do, Music, 366.
Lagos, J. M., Sheep wash, 255.
Lagraña, S., Shawls, 258.
Laidlaw, A., & Co., Hollow ware, 190.
Laidlay, J., Wheat, 163.
La Innocencia Mining Society, Galena, 88.
Lair, E., Papers, 198.
Laird, W., & Co., Fabrics, 148.
Lairitz, C. & L., Oil, 201; Linen fabrics, 203.
Lake Champlain Mfg. Co., Doors, 378.
Lake George Antimony Co., Metals, 74.
Lake Superior Iron Co., Iron ore, 48.
Lalance & Grosjean, Granite, 378.
Lalance & Grosjean Mfg. Co., Iron ware, 139.
La Libertad, Dept. of, Grains, 264.
Lallement Bros., Printing on satin, etc., 369.
Lalotte Ahmed, Amethysts, 302.
La Lys Co., Thread, 216.
Lamarre, Fancy articles, 198.
Lamary, Silk watchguards, 196.
Lamb, G. D., Washer, 377.
Lamb, J. & R., Church furniture, 110.
Lamb & Roberts, Wool, 159.
Lambert, A. de, Files, 218.
Lambert, Casimir, Son, Glass, 215.
Lambert, L., & Co., Glass, 215.
Lambie & Sargent, Table, 108.
Lamborn, R. H., Alternate, 9.
Lambron, P., Chemise, 299.
Lamego, A. da C., Pottery, 284.
Lamm, A. M., Gynecological apparatus, 227.
Lamson & Goodnow Mfg. Co., Cutlery, 139.
Lanca, Francisco P. de, Linen fabrics, 286.
Lancaster, A., Guns, 152.
Lancaster, C., Cannon, 152.
Lancaster Mills, Ginghams, 119.
Lancetti, F., Furniture, 233.
Lancia di Brolo, Duke Federigo, Salt, 231.
Lancroft, C. E. & H. B., Sulphates, 59.
Landa, Sons of Salvador, Linen, 273.
Landenberger's, M., Sons, Shawls, 121; Hosiery, 125.
Landham, F., Rule, 342.
Landis, S. M., Bath, 378.
Landreth, B., Bureau of Agriculture, 10.
Landrien, B., Books, 359.
Landskrona Mfg. Co., Fabrics, 226.
Lane, D. M., & Son, Buggy, 380.
Lane, T. G., Washing crystals, 187.
Lang & Co., Soaps, 252.
Lang, Ed., Linen handkerchiefs, 203.
Lang, J., Soaps, 252.
Lang, J. D., Judge, Gr. IX., 16.
Lang, J., & Sons, Guns, 152.
Lange, A., & Sons, Watches, 349.
Lange & Co., Silk, 317; Girths, 320.
Lange, Little, & Co., Printing, 132.
Langen, Kruchen, & Borrenkott, Cottons, 203.
Langenscheid Publishing House, Books, 348.
Langdon Manufacturing Co., Shirtings, 118.
Langevin, A. B., Marble, 72.
Langfeld, J., & Sons, Satchels, 129.
Langstrath, T., Furnaces, 375.
Langwisch, B., Chemicals, 201.
Lanieri, M., Soap, 255.
Lanin, Nicolas, Mineral water, 98.
Lankovski & Likop, Inks, 315.
Lansing, H. S., Auditor Board Finance, 11.
Lanza Bros., Soap, 231.
Laos, D., Sugar, 264.
Laos, M., Sugars, 264.
Lapaine, C., Bobinets, 209.
La Peña, Paper, 278.
Laperche, Chimney pieces, 194.
La Perla Bergadana Mining Society, Coal, 89.
Lapp, C., Food for children, 214.
Lapp, F., Clock case, 330.
Lapsaki, Government of, Brimstone, 96.
Lapshenko & Mickhaeloff, Apparatus, 372.
Lapworth Bros., Carpets, 150.
Lardera, A., Perfumery, 232.
Larenaudiere, F., Inks, 193.
Largey, P. A., Alternate, 9.
Largiader, R., School bench, 353.
La Rioja, Province of, Provincial Commission, Minerals, 83; Salt, 255; Shawl, 256; Quilt, etc., 257; Crochet work, 258.
Larkins, J. F., Implements, 329.
Laroche, A., Cotton, 195; Paste, 199.
Larry Scientific Association, Reports, 267.
Larsbo Norn Stock Co., Ores, 78; Iron, 79.
Larsen, N. F., Gloves, 223.
Larsson, P. M., Iron ores, 78; Iron, 79.
Las Conchas Pub. School, Embroidery, 258.
Las Osman, Gum, 306.
Las Palmas Society of Friends, Cloth, 273.
Lasa y Elizondo, P., Tapers, 271.
Lascurain & Co., Cigars, 268.
Lash, J. S., & Co., Washer, 377.
Lastarria, Victorine, Publications, 261.
Lastborn, Iven, Cupboard, 225.
Latham, E., Ale, 164.
Latles, M., Bronzes, 279.
Latrobe Furnace, Ores, 49; Pig iron, 58.
Latrobe, J. H. B., U. S. Commissioner, 9.
Latrop, E., Publications, 261.
Latzindaki, H. Y., Almonds, 307.
Laude, P., Boots, 317.
Laughlin Bros., China ware, 107.
Laughton, J., Earth, 182.
Launceston, Corporation of, Photographs, 182.
Launert & Decker, Annunciators, 331.
Laurel Furnace, Ores, 49; Iron, 59.
Laurent, F., Books, 360.
Lauriano & Lavores, Osier baskets, 289.
Lauriano & Tavores, Pincushion, 288.
Laurie, W. & L., Arrowroot, 158.
Laus, T., Apparatus, 372.
Lausmann, J. W., Instruments, 351.
Lautier Sons, Pomades, 193.
Lavaggi, F., Matches, 232.
Lavallée, N., Lime, 72.
Lavers, Alfred H., Portland cement, 61.
Lavoie, M., Hair work, 189.
Lavoinne, Mr., Judge, Gr. XXVI., 19.
Law, J., Crucible, 73; Lubricator, 190.
Lawlor & Co., Washing machines, 188.
Lawrence, A. R., & Co., Waters, 55.
Lawrence, E., Louisiana, 12.
Lawrence Furnace Co., Ores, 48; Iron, 58.
Lawrence, G. W., U. S. Commissioner, 9.
Lawrence, John N., Ten-pin balls, 336.
Lawrence, L. P., Chair, 374.
Lawrence Manf'g Co., Cotton goods, 116.
Lawrence, Watterbury, & Co., Bagging, 116; Cordage, 142.
Lawson, J. S., Washington Ter., 14.
Lawton, Burnett, & Co., Coal, 51.
Laxa Iron Works Co., Iron ores, 78; Iron, 79.
Lay, E., Jewelry, 204.
Layton, F., Soap, 157; Wax, 158; Oil, 159.
Laz Oglou Giorki, Penknives, 305.
Laz Osman, K., Cotton, 313.
Lazar, A., Designs, 351.
Leandro, Manuel, Woolen fabrics, 286.
Leao, A. D., Minerals, 82.
Leao, A. E. de, Whip, 254.
Leao & Alves, Perfumery, 252.

Leao, D. A. E., Bricks, 252.
Learmonth, L., Wool, 159.
Learned, E., Connecticut, 11.
Le Bailly-D'Inghuem, Cereals, 218.
Lebermuth, J., & Co., Leather, 218.
Leblanc, J. H., Fancy feathers, 189.
Lebou, L., Books, 359.
Le Boulangé, P. E., Telemeter, 359.
Le Boutillier, C., Judge, Gr. IX., 16.
Le Brun, Dictionaries, 343.
Lebzelter, P., Shafts, 379.
L'Eclair Joint Stock Co., Match tapers, 216.
Leclercq, Henry, Flax, 219.
Leclerq, Widow, Lace, 217.
Lecloux, G. J., Woolen stuff, 217.
Lecomte, A., & Co., Instruments, 345.
Le Coultre, J., Razors, 214.
Lecrenier, N. J., Model, 369.
Lederer, K., Glass trinkets, 210.
Ledesmo, J. A., Books, 368.
Ledig, A., & Son, Silverware, 113.
Ledo, Agostinbo E. de, Oligistic iron, 82.
Ledoux, B., Landaulet, 383.
Ledward, J., & Son, Cassimeres, 120.
Ledyard, T. D., Magnetite, 71.
Lee, B., Spine apparatus, 135.
Lee Bros., Bricks, 188.
Lee, R. J., Inhaler, 153.
Lee & Shepard, Books, 328.
Leedom, Shaw, & Stewart, Carpetings, 122.
Leeds, Louis M., Diagrams, 336.
Leeds Paint Manufacturing Co., Paints, 187.
Leete, B. F., Nevada, 13.
Leete, I. P., Atomizer, 329.
Lefebvre, F., Green water, 192.
Lefévre, R., Agricultural works, 261.
Lefort & Chapleau, Watchman detector, 342.
Lefterimo, Aposthol, Honey, 312.
Legaie, J. B., Cariole, 383.
Legarretta, A., Cereals, 268.
Legendre, Boots, 197.
Legueurdji, Miss, Lace, 301.
Lehigh Iron Co., Iron ore, 49; Flux, etc., 57.
Lehigh Slate Co., Slate, 52.
Lehigh Valley Iron Co., Ore, 50; Iron, 57.
Lehigh Whetstone Co., Whetstones, 55.
Lehigh Zinc Co., Ore, 47; Zinc, 57.
Lehmann, A., Directory, 351.
Lehmann, H., Gloves, 204.
Lehmann, N., Chromos, 211.
Lehmann & Wentzel, Designs, 352.
Lehnert, C., Cymbals, 333.
Lehnert, H. G., Instruments, 333.
Leibrandt & McDowell Stove Co., 375.
Leidy, Francis D., Soaps, etc., 102.
Leighton, Chas., Shirt, 124; Buttons, 127.
Leiner, M., Instruments, 135.
Leinier, Moritz, Brushes, etc., 128, 142.
Leippe, J. A., Shafts, 379.
Leipsic Gazette, Newspapers, 348.
Leirens-Eliaret, Thread, 216.
Leitao & Irinao, Jewelry, 288.
Leite, F. de Paula, Salt, 283.
Leite, T. J., Yarns, 285.
Leizirias Co., Salt, 283.
Leja, J., Thermometer, 363.
Lejeune, Vincent H. J., Woolen stuff, 217.
Lellian, Ernesto, Magnetic iron, 82.
Lemaire, Eye glasses, 345.
Lemarchand, Mr., Cloves, 181.
Lemas, J. A. de, Minerals, 82.
Leme, D. R. P., Canes, 254.
Lemerre, A., Books, 343.
Lemes, R. Z., Cotton goods, 253.
Lemière, A., Salt, 178.
Lemos, Abraham, Minerals for paints, 83.
Lemos & Autunes, Pulley blocks, 290.
Le Moulnier, Pavement, 345.
Lendenberg, L. B., Lime, 82; Salt, 252.
Lenègre, A., Albums, 198.
Lennon, H., Plow, 165.
Lennon, T., Ropes, 155.
Lenoir & Forster, Apparatus, 351.
Lenoir, P., Corsets, 196.
Lenzkirch Joint Stock Co., Clocks, 349.
Leon, Provincial Institute of, Marbles, etc., 90.
Leon Ternel, José, Salt, 270.
Leon y Raigon, A., Pitchers, 272.
Leonard & Ellis, Cylinder oil, 103.
Leonardo, Q., Silver, 282.
Leone, F. M., & Lemos, P. L., Minerals, 82.
Leonhard, Theo., Beeswax, 128.
Leoni, A., Costumes, 234.
Leonisaki, D., Brandy, 313.
Leonora Plantation, Rum, 175.
Leontieff, Furniture, 316.
Leopoldshall Chemical Factory, Salts, 201.
Lepage, F. J., Essences, 252.
Lepanto, Commission of, Gold dust, 93.
Lepeshkin, N., Chemicals, 315.
Lepowski, E., Rolling chairs, 205.
Leresche-Golay, Jules, & Co., Files, 358.
Lerl, G., & Sons, Photograph frames, 208.
Leroux, G., Millstones, 73.
Leroy, A., Dictionary, 343.
Leroy, P., System, 343.
Leroy, P. N., Books, 343.
Lerra, M. J., Oil, 264.
Lesar, W., Table, 169.
Lescanor, Agriculture, 267.
Lesimple, A., Books, 348.
Lesjöfors Iron & Steel Co., Ores, 78; Iron, 79.
Lesley, A. M., Furnace, 375.
Lesley, A. V., Delaware, 12.
Leslie, F., New York, 13.
Leslie, R., Clay, 73.
Lesne, Capt., Judge, Gr. XVI., 17.
Lesser, G., & Co., Preparations, 202.
Letang, T. I. B., Moulds, 194.
Le Tellier, A., Filters, 359.
Lethbridge, G. L., Wool, 159.
Lette Association, Placard, 349.
Letterstedt & Co., Wheat flour, 170.
Leuenberger & Son, Clocks, 355.
Leukart, Books, 348.
Leur, W., Lead, 220.
Leurant, Emile, Cylinder, 215.
Leusinger Sons, Blank books, 254.
Leuwarden, Association for Improvement of Workmen's Buildings, Drawings, 361.
Leuzinger, R., Atlas, 356.
Leuzinger & Sons, Articles for museums, 366.
Levallée, N., Limestone, 72.
Levasseur, E., Judge, Gr. XXV., 19.
Level, Leon, Gloves, 217.
Level, Medical systems, 343.
Lever Spring Bed Co., Spring bed, 110.
Levesque, V., Metrical system, 343.
Levilion, Costumes, 196
Levy, I., Imitation jewelry, 197.
Lewenhaupt, Count C. M., Toys, etc., 362.
Lewenhaupt, Count Sten., Wood pulp, 227.
Lewis, A. E., Mississippi, 13.
Lewis Bros., Wheat, 158.
Lewis, J., Quartz, 166; Curling stone, 340.
Lewis, John I., Milton carpets, 150.
Lewis, John T., & Bros., Acids, paints, 102.
Lewis, Levi, Lime, limestone, 72.
Lewis, Magnetite, 71.
Lewis, Oliver, & Phillips, Iron, 58; Hardware, 142.
Lewis & Whitty, Knife polish, 65; Oil, washing powder, 160.
Lewis, Willard, Carpet lining, 122.
Lewiston Mills, Tickings, 116.
Lewy, F., Safe, 128.
Lexington & Carter Co., Mining and Mfg. Co., Coal, 51.
Leykauf, George, Burnishing stones, 206.
Leynen-Hougaerts, J. A. H., Vestments, 217.
Leypoldt, F., Publications, 327.
Leyser, W., Polished stones, 204.
Leyte, Provincial Board of, Fabrics, 281.
Liais, E., Surveys, 367.
Liardet, H. E., Feathers, 155.
Libalon, Governor of, Fabric, 281.
Libe, John C., Yeast powder, 102.
Liberg, B. & O., Cutlery, 227.

Lichtenfelder, Seats, 194; Tools, 199.
Licot, F., Book, 359.
Lie, P. A., Silver work, 230.
Lien Shing, Furniture, 241; Jewelry, 242.
Lienard, F., Plan of Paris, 346.
Ligero, M., Stearine, 265.
Lighte & Ernst, Pianos, 334.
Ligory E., Ores, 96; Copper, 97; Sulphate, 291.
Lihue Plantation, Sugars, 251.
Liking Iron Co., Ores, 48; Iron, 59.
Likly, McDonald, & Rockett, Gun case, 129.
Liljeholmen Stearine Mfg. Co., Acid, 225.
Lilley, M. C., & Co., Masonic goods, 142.
Lillo, F., Towels, 258.
Lilpop, Rau, & Loevenstein, Steps, 319.
Lima, Botanical Garden of, Plants, 264.
Lima, C., Plaited straw, 284; Straw hats, 287.
Lima, C. A. de, & Calarans, J. M. de, Artificial flowers, 254.
Lima, F., Girths, 254.
Lima, G. A. E., Pharmacies, 283.
Lima, Municipal School of, Photographs, 263.
Limbourg Scientific & Literary Society, 359.
Limet, Lapareillé, & Co., Files, 199.
Limousin & Co., Capsules, 192.
Limousin, Machine, 199.
Linares, Clemente, Iron ore, 87.
Linares, Corp. of, Building stones, 90.
Linari, Eng. Antonio, Plan for a tunnel, 365.
Linck, J., Photographs, 358.
Lincoln, Bennett, & Co., Hats, 151.
Lincoln Furnace, Iron ores, 48; Iron, 58.
Lindahl, J., Apparatus, 363.
Lindahl, J. F., Matches, 225.
Lindberg, Lars, Iron ores, 78.
Lindblad, M. A, Types, 362.
Linde, F., Cosmetics, 315.
Lindemann, Carl, Corks, 206.
Lindemann, G., & Co., Potash, 201.
Linden Steam Mills, Velvet, 203.
Lindenbauer, O., Chemicals, 201.
Linderman, G. B., Coal, 51.
Lindereth, G. W., Clocks, 363.
Lindhen, H. A. W., Letter box, 363.
Lindley, G. W., Wool, 183.
Lindley, Robert C., Stones, 61.
Lindsay & Anderson, Terra-cotta, 146.
Lindsay & Blakiston, Binding, 132; Books, 328.
Lindsay, J. A., Gold ores, etc., 70.
Lines, Mrs., Lace, 174.
Linglin, E., Regulator, 359.
Lins, Lemenha, Guitars, 367.
Lintelo, A., Clocks, marble slabs, 216.
Linthicum, A. V., Arkansas, 11.
Linthicum, W. O., Judge, Gr. X., 17.
Linville, J. H., Bridges, 334.
Lion & Guichard, Barometers, 344.
Lipman, Hyman L., Machines, 130.
Lippincott, C., & Co., Apparatus, 55.
Lippincott, J. B., & Co., Blank books, 132; Publications, 326.
Lippitt, H., Rhode Island, 14.
Lippitt Woolen Co., Cassimeres, 121.
Lipscombe, F., Seeds, 182.
Lisbon, Board of Public Forests, Oils, 283; Maps, 369.
Lisbon Central Jail, Mats, 284; Brushes, 289.
Lisbon, Dept. of Finance, Statistics, 369.
Lisbon, Dept. of Public Works of, Candles, 283; Earthenware, 284; Cottons, 285.
Lisbon Dyeing & Cotton Printing Co., Lime, 95; Prints, 285.
Lisbon, House of Correction of, Mats, 284.
Lisbon National Printing Office, Books, 369.
Lisbon Spinning & Weaving Co., Yarns, 285.
Lithgow Valley Iron & Coal Co., Iron, 64.
Litoff, K., Costumes, 318.
Litografiska Stock Co., Playing cards, 227.
Litolu Nakous Oglon, Silk, 297.
Little, A. R., Finance, 10.
Little, E. W., U. S. Commissioner, 9.
Little, T. W., & Co., Cloth, 149.
Littleton Saranac Buck Glove Co., Gloves, 126.
Liver Alkali Works Co., Soda, 144.
Liverpool Spun Oakum Co., Oakum, 153.
Ljungström, J. P., Instruments, 363.
Llacer, A., Cloth, 274.
Llamas, G. de, Balsam, 280.
Llanos de Pedro, J., Cloth, 275.
Llanos, J. R. de, Poncho, 256.
Llanos Moreno, S., Cloth, 275.
Llanos Nuñez, P., Cloth, 275.
Llanos, R. P. Fr., A., Minerals, 93.
Llanos Valle, S., Cloth, 275.
Lledó y Gomez, Cipriano, Gypsum, 90.
Llevat & Son, A., Mosaic, 272.
Lligé & de Planell, Iron ore, 87.
Llofriu, M., Flour, 271.
Llopis & Son, Cloth, 274.
Lloyd Bros., Fixtures, 113.
Lloyd, E., Maps, 321.
Lloyd, H. C., Magnetite, 70.
Lloyd, Supplee, & Walton, Machines, 115; Locks, 138.
Lobao & Ferreira, Jewelry, 288.
Lobato, J., Book, 267.
Lobb, J., Boots, 151.
Lobmeyer, I. & L., Glass articles, 207.
Lobo, Tristan, Chalk clay, 85.
Local Com., Cape Good Hope, Costumes, 169, 170.
Locati, A., Cabs, 383.
Locati, Cav. A., Carriages, 235.
Locher Bros., Embroideries, 213.
Locke, J., Hubs, 382.
Lockwood, A. D., Judge, Gr. VIII., 16.
Lockwood, Brooks, & Co., Inks, 104; Telegraph, 331.
Lockwood, C. N., & Co., Lamps, 379.
Lockwood, Crosby, & Co., Books, 338.
Lockwood, G. R., Books, 326.
Lockwood, W. P., Model of gold nugget, 70.
Loder, A., Wool, 159.
Lodholz, F., Jewelry, 204.
Lodi, G. B., Gloves, 234.
Loeber, G., Stationery, 221.
Loeff, P., Books, 349.
Loeflund, E., Chemicals, 201.
Loera, Frenometry, 267.
Loesch, Z., Work box, 253.
Loewenberg, H., Imitation leather goods, 203.
Löfvenskiöld, Salomon, Ores, 78; Iron, 79.
Logan Furnace Co., Ores, 49; Iron, 58.
Logan, Y. E., Idaho, 12.
Logansport Mfg. Co., Spokes, 379.
Lohmann & Söding, Steel, 75.
Lohner & Co., G., Carriages, 211.
Lohr, A. R. von, Models, 352.
Lohse, G., Chemicals, 201.
Loiseau, A., Son, Toys, 198; Apparatus, 345.
Loix, F., Paper, 278.
Lolhnstein, Emilio, Galena, 88.
Lomas, Adam, & Son, Flannels, 189.
Lombard, Thos. C., Galena, 47.
Lommen, C. H., Glass, 220.
Londley, Building sandstone, etc., 72.
Longaker, H. D., Anatomical specimens, 135.
Longmire, T., Flax, 164.
Lonitz, H., Jars, 202.
Lonsdale Co., Sheetings, 116.
Lönseth, Fred., Millstones, 80.
Lontue, Department of, Wood, 262.
Lookootin, A., & Son, Papier-maché, 320.
Loomis, B., Connecticut, 11.
Loonen, F., Brushes, 198, 200.
Loones, History, 343.
Looper, de Haiden, & Co., Glass, 215.
Lopatin, P., Calico, 316.
Loper & Doughten, Naval stores, 103.
Lopez de Codes, Tomas, Guano, 270.
Lopez do Campo, A., Sieves, 284.
Lopez, F., Rings, 258.
Lopez, Feliciano, Clay, 84.
Lopez, F. J., Saltpetre, 252; Cloth, etc., 253.
Lopez, F. J. A., & Co., Bituminous schist, 82.
Lopez, J., Matting, 273.
Lopez, José M., Mineral water, 91; Iron, 92.

Lopez Losada, A., Ferruginous waters, 91.
Lopez, Miguel, Cords, 269.
Lopez, S., Tables, 233.
Lopez Seoane, Victor, Stones, 90.
Lopez, Simon, Gypsum, 90.
Lorck, C. B., Books, 348.
Lord, J. E., & Co., Spring-bed bottom, 111.
Lordello Woolen Mfg. Co., Cloths, 286.
Lorenz Bros., Perfumes, 105.
Lorenz, Gustav, Basket ware, 206.
Lorenzen, L., Bitter cordial, 224.
Loreta, Pupils of Mrs., Engraving, 267.
Loreto, Department of, Nuts, 264.
Loreto, Mrs., Embroidery, 266.
Lorilleux, Ch., Inks, 193.
Lorin, A., Glass, 194.
Lörincz, S., Boots, 208.
Loring, E., Judge, Gr. IV., 16.
Loring, G. E., U. S. Commissioner, 9.
Lortie, Bookbinding, 199.
Lory-Delaet, P., Writing method, 359.
Losada, L., Teeth, 278.
Loser Bros., Mineral water, 76.
Loth, E., Straw goods, 316; Flowers, 318.
Loth, Henry, Folding table, 109.
Loth, John Thomas, Educational books, 338.
Lott, L., Chromotypographs, 211.
Louderbach, E., Shades, 113.
Louis, J., & Bro., Oilstones, 55.
Louis, Julius, & Co., Oilstones, 139.
Louisson, T. B., Iron ore, 63; Paint, 155.
Lousbergh, V., Colors, 220.
Louvet, A., Support, 344.
Lovatt, W. N., Porcelain, 241.
Lovegrove, W., Maize, 158.
Lovell, F. H., & Co., Burners, 115.
Lovell, G. H. & M. F., Ear brush, 142.
Lovell, J. P., & Sons, Revolvers, 133.
Lovell Printing & Publishing Co., Books, 342.
Lover Manufacturing Co., Matches, 225.
Low, Son, & Haydon, Soaps, 145; Brushes, 153.
Lowe, A. C., Gilt bouquet tables, 112.
Lowe, A. H., Wool, 159.
Lowe, N. M., Hygrometer, 329.
Lowe, S. B., Tennessee, 14; Ores, 49; Map, 60.
Lowell Bleachery, Cotton goods, 117.
Lowell Carpet Co., Carpets, 122.
Lowell Hosiery Co., Hose, 125.
Lowell Manufacturing Co., Lastings, 122.
Lowenstein, A. R., Shoes, 209.
Lowentrant, P., Goods, 115; Tools, 138.
Lower Silesian & Markish R. R., Models, 206.
Lowerre & Tucker, Fluting machines, 115.
Lowery & Williams, Underwear, 123.
Lowman, J., Screen, 220.
Lowry, R., U. S. Commissioner, 9.
Lowthrop, Francis C., Photographs, 334.
Loyd, Engineer, Plans, 367.
Lozano, J. M., Treatise, 267.
Lucas, B., & Co., Flannels, 121.
Lucas Bros., Cloth, 203.
Lucas, John, & Co., Paints, 104; Glass, 108.
Lucenqui de Pimentel, Pictures, 277.
Lucy Furnace Co., Ores, 47; Pig metal, 56.
Lüder & Leidloff, Chemicals, 201.
Lüderitz, C. G., Books, 348.
Ludovic & Vallauri, Curtains, 292; Covers, 297; Fabrics, 298; Costumes, 301; Label 304; Copper pincers, 305; Portrait, 371.
Ludwig, Schmidt, & Mohl, Enamel, 136.
Lugo, Prov. Com., Pottery, 272; Fabrics, 274.
Lugsden & Barnett, Saddles, 191.
Lukasch, J., Fancy goods, 210.
Lukin & Gresley, Newspaper, 179.
Lummerzheim, M. H., & Co., Roofing, 215.
Luna, Ramon, Figure, 276.
Lundholm, C. A. V., Organ, etc., 363.
Lürssen, Carl, Corks, 276.
Lusignan Plantation, Rum, 175.
Lussy, M., Music method, 353.
Luthringer, Silk, 196.
Luttensee, George, Stone, 80.
Lutton, Am., Chasubles, 196.
Luttringer, Ch., Frames, 194.
Lux, Cl., Bronze articles, 209.
Lyell & Gowan, Ore, 68.
Lyford, S. C., Judge, Gr. XVI., 17.
Lyman Bros. & Co., Oil, 187.
Lyman, Clare, & Co., Oil, 187.
Lyman, F. S., Saddle, 250; Leather, 251.
Lyman Mills, Flannels, etc., 118.
Lyman, S. J., Perfumery, 187.
Lynch & Co., Instruments, 153.
Lynch, J., U. S. Commissioner, 9.
Lynex, R., Wire, 378.
Lyon, G., Soda water, 65; Sauce, 164.
Lyon, Sylvanus, Locks, 142.
Lyon, Washington, Calculating table, 339.
Lyonnais, T., Violin, 342
Lyons, Cottier, & Co., Window, 157.
Lyons, Wm., Writing ink, 145; Wax, 152.

M.

Maas en Zonen, A. E., Nets, 220.
Maass, T., Wigs, 318.
Mabie, Todd, & Bard, Toothpicks, 128; Pens, 130.
Mabille, A., Books, 169.
Mabille, Valere, Manufactured iron, 77.
MacAndrews & Co., Liquorice, 271.
Macarthur, Sir W., Woods, 158.
Maccagnani, Ulisse, Earth, 81.
Macdonald, Field, & Co., Monument, 61.
MacDonald, J. L., Wool, 159.
MacDowell, N., Minerals, 83.
Machado, Julio Rodrigues, Braids, 287.
Machado, M. P., Straw fabrics, 284.
Machado, R., Hat, 257.
Machen, W. B., Kentucky, 12.
Macia & Co., Tin bar, 92.
Macia & Co., D., Tin ore, 88.
Maciel, D., Sulphurous water, 82.
MacIntosh, J., Doors, 147.
Mack, E., Chemicals, 201.
Mackay, A., Maize, 180.
Mackay, Angus, Books, 179.
Mackay, John, Varnishes, 145; Food, 153.
Mackenzie, Sugar, 180.
Mackeown, Bower, Ellis, & Co., Drugs, 102.
Mackey, T. H., Wood, 175.
MacKinlay, A. & W., Books, 190.
MacKinlay, A. & W., & Co., Map, 342.
MacKinnon, J. C., Iron ores, 71.
Mackintosh & Oakes, Kaolin, 64.
Madero, Cirilo, A., Stone, 90.
Madine, Mr., Cigars, 181.
Madini, A., & Co., Bags, 233.
Madrazos & Co., Tobacco, 268.
Maelen, J. van der, Books, 359.
Maes, G., Fabrics, 195.
Maffei, P., Cards, 278.
Mafra, M. C. G., Ceramics, 284.
Magalhaés, A. M. Barboza de, Laces, 288.
Magalhaes, F. T. S., Argil, colored clay, 82.
Magalhaés, Francisco T., Linen fabric, 286.
Magalori, H., Grammar, 266.
Magarey, T., & Co., Flour, 167.
Mage, senior, Wire, 200.
Magee Furnace Co., Furnaces, etc., 376.
Maghlé, Government of, Iron, 96.
Magnetite Iron Co., Ores, 47; Iron, 56.
Magnus, G., & Co., Billiard balls, 205.
Maguet, Stationery, 198.
Maheiro, L., Judge, Gr. XXVI., 19.
Mahillon, C., Instruments, 359.
Mahler, M., Furs, 129.
Mahmoud Agha. Boots, 301; Honey, 312.
Mahmoud Agha Diiri, Garments, 299.
Mahmoud Cozzi, Tissue, 293.
Mahmoud Deguiz, H., Coverlets, 299.
Mahmoud, E., Fabric, 293.
Mahmoud, Hadji, Calicoes, 194; Boots, 301.
Mahmoud Kabali, Decanter, 305.
Mahmoud, M., Hair, 314.

Mahmoud, T., Cap, 301.
Mahmouda, H., Felts, 295.
Mahn, L. H., Base balls, 129.
Mahoning Valley Cent. Assn., Ores, 49; Iron, 55.
Mahony, Tobacco, 180.
Mahony, Martin, & Bros., Tweeds, 149.
Maia, Ferreira, & Co., Pharmacies, 252.
Maimonn, Wool, 314.
Maine, Educational Dept. of, 323.
Maine Red Granite Co., Granite, 53.
Maine Slate Co., Roofing slate, 52.
Maineri, Carlo, Geographical map, 365.
Mainetti, F., Carriage, 235.
Maino, Antonio, Books, 365.
Mains Manufactnring Co., Lamps, 115; Dice box, 128; Tester, 330.
Maiquez y Tomás, T., Fabrics, 275.
Maires & Reed, Iron chairs, 111.
Mairlot & Heuse, Gnn barrels, 218.
Maison, Rnstique, Books, 343.
Maisonneuve & Co., Books, 343.
Maitrepierre, Books, 343.
Maitrise, St. Pierre, Scholars' work, 342.
Maize & Schwartz, Uniforms, 123.
Majalhaes & Moniz, Books, 369.
Majervsky, T., & Stochelsky, M., Coal, 98.
Majevski, T., Drops, 319.
Majira, Mrs. G., Paintings, 267.
Majolini, F., Scale, 359.
Major, Dr., Nntmegs, 172.
Makbonbi, Towels, 299.
Makee, J., Sugars, 251.
Maki Yani, Comfitures, 312.
Maktès, Bagdo, Sheeting, 293.
Maktès, Heron, Saddle cloth, 305.
Maktis, Extracts, 291, 292; Manna, 306.
Makudsn, Kozan, Porcelain, 249
Makudzu, K., Vases, 245.
Mala Noche Company, Minerals, 86.
Malaga, Corps of Mining Engineers, Stone, 90; Slag, 92.
Malaise, C. H. G. L., Chart, 359.
Malcher, A. J., Straw goods, 253.
Malcolm, R., Harness, 191.
Malcom & Stevenson, Fruit extracts, 105.
Malfait, F., & Co., Clocks, 344.
Malhada Mining Co., Copper ore, 94.
Mali, Henry W. T., Fabrics, 195.
Mallah Ahmed, M., Fabrics, 298.
Mallet, J. W., Judge, Gr. III., 15.
Malligand, E. D., jr., Tester, 344.
Mallory, R., U. S. Commissioner, 9.
Mallory, Wheeler, & Co., Locks, 141.
Malmö Porcelain Mfg. Co., Porcelain, 225.
Malmö Wood Pulp Mfg. Co., Pulp, 227.
Malmö Woolen Mfg. Co., Yarn, 226.
Malmsjö, J. G., Pianos, 363.
Malone, Duny, California, 11.
Maltby, Curtiss, & Co., Nail puller, 137.
Maltese, Felice, Book, 365.
Maltète, Toys, 198.
Malvehy, B., Silk, 275.
Mame, A., & Son, Book, 343.
Manapola, C., Carpet, 296.
Manceanx, H., Books, 359.
Manchester Mills, Prints, 119; Fabrics, 121.
Mandené, Diarbekir, Ore, 96.
Manderson, C. F., Nebraska, 13.
Maneza, Government of, Flax seed, 310.
Mangeri, A., Cloths, 233.
Manhattan Brass Co., Brass, 59.
Manhattan Piano Forte Co., Pianos, 333.
Manik, H., Skin, 311.
Manila Economical Society, Arms, 282.
Manila, Provincial Board of, Hats, 281.
Manilha, F. dos S., Stones, 95; Slates, 289.
Manly, M. M., & Son, Rails, 139; Railing, 378.
Mann, Wm., Blank books, 131.
Manning, Bowman, & Co., Nickel ware, 113.
Manol Veledidinko, Basket, 303.
Manoli Boyadjaki, Barley, 308.
Manoli Calergui, P., Tobacco, 309.
Manoli, L., Pipe, 371.
Manoli Musé, Vinegar, 313.
Manoli Prizi, Brandy, 313.
Manoli Toraki, Miss C., Crochet, 301.
Manonk, Plate, 292; Chain, 302.
Manouk, Y., Tobacco, 310.
Mansfield Shire Council, Marble, 65.
Mansilla, Manuel, Quartz, 83.
Mansour, H., Cotton, 293; Sponges, 310.
Mansuy-Dotin, J., Enamels, 194.
Mantero & Asnero, M., Boots, 276.
Mantilla, C., Counterpane, 256; Shawls, 258.
Mantilla, F., Embroidery, 258.
Manual de la Vega, Wire bust, 263.
Manuel, Antonio da S., & Sons, Shot, 289.
Manuel, C., Lessons, 266.
Manuel, J. de L., & F., Velvet, 287.
Manuel, Leita P., & Bro., Pottery, 284.
Manufactory of Arms, Cartridges, 278.
Manufactory of Side Arms, Arms, 278.
Manufacturers' Joint Stk. Co., Statutes, 360.
Manuvilling, J. J., Matches, 188.
Manville, B., & Co., Rockaways, 381.
Manville Co., Cotton goods, 117.
Manzanares, Josefa, Embroideries, 263.
Manzano, Juan, Charcoal, 93.
Maorad, Benito, Manganese, 89.
Maplestone, C., Wines, 164.
Marabella, District of, Steatite, 91.
Marach, Government of, Mineral waters, 97.
Marais, H. H., Brandy, 171.
Marais & St. Marie Paper Mills, Paper, 198.
Maralha, P., Pitcher, 284.
Maranesi, G., & Masetti, B., Ink, 232.
Maranhao, Prov. of, Pharmacies, 252; Cups, 254.
Maravedo, S., Military manœuvring, 267.
Marbaix, Auguste de, Essential oil, 215.
Marbeau, Plans, etc., 346.
Marble, Jerome, & Co., Indigo blue, 105.
Marca, S., Soap, 271.
Marcal, J. L., Bricks, 284.
March, Brownback, & Co., Ranges, 375.
Marchand, I., Furniture, 194.
Marchand, L. L., Bronzes, 194, 199.
Marchesini, P., Hats, 234.
Marchini, C., Straw works, 235.
Marco, Spoons, 305.
Marcotte, L., & Co., Furniture, 110.
Mardili, O., Cotton, 313.
Marfá, Cayetano, Cotton, 276.
Marga, Eugene, Chimney piece, 194.
Margani-Valenti, G., Medicines, 235.
Margarido, M. d'O., Bottle, matting, 284.
Margues, José Antonio, Umbrellas, 288.
Maria, Joaquim, Tree, 288.
Maria, José, Toothpicks, 288.
Maria & Silvia, F., & Gonçalves, Hats, 287.
Marie, François, Arrowroot, 178.
Marie, G., Woolen coverlet, 296.
Marie, Ganze, 299.
Marie, Madame, Ribbon, 295; Carpet, 296; Purses, 303.
Mariel, H. de, Book, 343.
Marietta, Pittsburg, & Cleveland Railway, Minerals, etc., 49.
Marin, J., Judge, Gr. XXVIII., 19.
Marin, M., Water, 91; Essences, 270.
Maring, W., Plan, 356.
Marinha Grande Royal Glass Mfy, 284.
Marini, Marq. P., Olive oil, 232.
Marion Blind Co., Window shades, 115.
Merionga, Counterpane, 298.
Maripa, Golopo, Cloth, 295.
Mark, Raisins, 312.
Mark, G. L., Brandy, 313.
Markham, A., Pyrolnsite, 71.
Markora, S., Cheese, 310.
Markowitsch & Scheid, Trinkets, 209.
Marks, Arrowroot, 180.
Marks, A. A., Limbs, 135.
Marks, A. F., Periodical, 372.
Marks, T., & McKellar Bros., Silver ores, 70.
Marling & Co., Woolens, 149.
Marlor, T. L., Connecticut, 11.

Marmolejo, Corporation of, Water, 91.
Maroli, Crape, 299.
Maroquin, Morocco, 311.
Marouli, Mrs. G. S., Gauze, 299.
Marquar, Apron, 294.
Marquart, L. C., Chemicals, 201.
Marques, J. da Rosa, Earthenware, 284.
Marques, Manuel Martius, jr., Jewelry, 288.
Marques, P. A., Earthenware, 284.
Marquise Iron Co., Pipes, 199.
Marrel, J. E., Clocks, 344.
Marrin Bros., Parlor organ, 342.
Marrogui, J. M., Catechism, 266.
Marsh & Co., Gypsum, 55.
Marsh, Jas. P., & Co., Health lift, 336.
Marshall, B. F., jr., Book, 326.
Marshall Bros. & Co., Iron work, 143.
Marshall & Co., Sewing threads, 149.
Marshall, J., Ale, porter, 159.
Marshall & Slade, Wool, 180.
Martell, E., Judge, Gr. IV., 16.
Marter, F. B., Chest, 190.
Marthaus, A., Felt goods, 203.
Marti de Detrell, Cushion, 277.
Martilaro, Mar. C., Olive oil, 232.
Martin & Bros., Cover, 279.
Martin, C., Polish, 73.
Martin, C. F., & Co., Guitars, 332.
Martin, Ch., & Co., Watches, 355.
Martin, Charles, Crucibles, 187.
Martin, D., Cloth, 275.
Martin, F. O., Granite, 53.
Martin, G., Sugar, 158.
Martin, H. F., Slate mantels, 52.
Martin, J., Wines, 168.
Martin, J. A., U. S. Commissioner, 9.
Martin, J. B., Silks, 196.
Martin, L., Sheet iron, 199.
Martin, L., & Co., Lampblack, 104.
Martin, P. J., Malt, ale, 164.
Martin, R., Cutters, 154.
Martin, W. H., Whips, 151.
Martin, W. H., & Co., Roofing; 378.
Martinelli & Bro., Marble fixtures, 253.
Martines, F., Olive oil, 232.
Martinez, A. S., Cup, 256.
Martinez, Benito, Trunks, 277.
Martinez, C., Pharmacies, 278.
Martinez, D., Bag, 281.
Martinez de la Forre, Cigars, 268.
Martinez, Del Rio, Book, 267.
Martinez de Santa Maria, Iron ore, 87.
Martinez, F., Silk, 275.
Martinez, J. M , Wines, 263.
Martinez, Joaquin, History, 267.
Martinez la Llana, Work basket, 273.
Martinez, Lopez F., Paper, 278.
Martinez, M., Fabrics, 280.
Martinez, R., Grapes, 277.
Martinez, R., Silk, 276.
Martinez, Victor, History, 267.
Martinotti, L., Furniture, 233.
Martins, A. C., Pottery, 284.
Martins, Jeronymo, & Bro., Toothpicks, 288.
Martins, Jeronymo, & Son, Toothpicks, 288.
Martisheff, W., Indicator, 373.
Martius, W., Gloves, 209.
Martorana, Paladino S., Sea salt, 231.
Marunaka, M., Vases, 249.
Marvin Bros. & Bartlett, Cod-liver oil, 103.
Marvin's Safe Co., Safes, 112; Locks, 141.
Marx Bros., Scissors, 139.
Marx, G., Judge, Gr. IV., 16.
Marx & Rawolle, Glycerine, etc., 103.
Maryland, Educational Dept. of, 323.
Marzi Bros., Olive oil, 232.
Mas, M., & Son, Fabrics, 273.
Mas, Ramon, Soda, 270.
Masbate, Provincial Board of, Baskets, 280.
Masbate, Prov. Com. of, Gold dust, 93.
Mascarenhas & Bros., Cotton goods, 253.
Maschado, M. A., Horse-hair goods, 253.
Maseurand Bros., Pearls, 197.
Mashimidzu, Zoroku K., Vases, 244.
Maslin, T., West Virginia, 14.
Masloum Agha, Morocco, 311.
Masoliver, Bartolomé, Chalk, clay, 91.
Masoliver Bros., Silk, 276.
Mason & Barry, Ores, 94; Gold, silver, plans of mines, 95.
Mason, C., Illinois, 12.
Mason, C. F., & Co., Cassimeres, 120.
Mason & Co., Engraving, 130.
Mason & Hamlin Organ Co., Organs, 332.
Mason, J. L., Soap cup, 374.
Masonic Publishing Co., Books, 327.
Massachusetts, Commonwealth of, Educational exhibit, 324.
Massachusetts Cotton Mills, Drillings, 117.
Massachusetts Institute of Technology, 322.
Massaguer & Lledó, Fans, 277.
Masser, H. B., Coffee roaster, 376.
Massing Bros. & Co., Silk plushes, 204.
Massmann, F., Gold cornices, 202.
Masson, G., Books, 343.
Massoudjou, Ochre, 292; Bark, 306.
Masury, J. W., & Son, Painting, 104.
Mata, Mrs. J., Towel, 266.
Mataix, C., Cloth, 274.
Mateos y Morato, Sulphate of lead, 87.
Mather's, Geo., Sons, Inks, 104.
Matheson & Gilice, Hematite ore, 71
Mathieu, Antonio, Spanish white, 91.
Mathijsen, A., Bandages, 221.
Mathushek Piano Mfg. Co., Pianos, 334.
Matié, Lady, Fabric, 298.
Matier, Henry, & Co., Printed linens, 149.
Matile, H. L., Watches, 355.
Matlack, H. S., Paper hanging, etc., 111.
Matlos, Antonio José de, Basket work, 289.
Matros, E., Blanket, 296.
Matson, J. S. B., Ornaments, 328.
Matsumoto, T., Paper, 247.
Matsuo, I., Bazar, 248.
Matsu-zaki, S., Soap, 244.
Mattaldi, E., Harness, trunk, 259.
Matteissen, N., Potash, 315; Medicine, 319.
Matthes, W. E., Ammonia, 220.
Matthews, E., & Son, Tiles, 146; Windows, 147.
Matthews, F. L., U. S. Commissioner, 9.
Matthews, John, Terra-cotta, 145.
Matthias, Mrs. C. E., Umbrellas, 128.
Matthiessen & Hegeler Zinc Co., Zinc, 59.
Mattmann Bros., C. & J., Pastry, 214.
Mattos, F. C. Perreira de, Flails, 290.
Mauch, D., Wine, 180.
Mauke, W., Book, 348.
Maurer, Henry, Tiles, 107.
Maurer & Höfler, Instruments, 349.
Mauser & Haid, Stone, 54.
Mauvernay & Co., Silks, 196.
Mavrillis, E. E. G., Silk, 297.
Maw & Co., Terra-cotta, 146.
Mawson, Ed. S., & Sons, Skins, 129.
Máximo, I. & E., Flowers, 282.
Maxton, R., & Co., Laces, 197.
May, J. M., Silk, 159.
May, J. P., Models, etc., 342.
May, James S., Clothing, 189.
Mayall, Miles, Linings, 122.
Mayaud Bros., Ornaments, 194; Medals, 198.
Maydole, D., & Co., Hammers, 137.
Mayer & Co., Linen goods, 203.
Mayer, E. H., Books, 348.
Mayer, G., Gloves, 240.
Mayer, J. W., Cutter, 381.
Mayer, M., Envelopes, 205.
Mayer & Meltzer, Galvanic batteries, 339; Instruments, cutlery, 153.
Mayer, Moses, Collection of coins, 336.
Mayer's Art Institution, Statues, 202.
Mayet-Tissot, M., Regulators, 344.
Maylasky, S., Girth, 254.
Maynard & Noyes, Writing ink, 105.
Mayo, M. C., Plane, 138.
Mazalaki, Dimitri, Oil, 291.
Mazaroz, R., Furniture, 194.

Mazarrasa, G., Basket, 273.
Mazloum Aghiah, Pastes, 312; Design, 371.
Mazullo, Cav. Agostino, Rock salt, 231.
Mazzullo, Cav. L., Olive oil, 232.
McAdam, Miss V., Baskets, 184.
McAlpine, Wm. J., Engineering exhibits, 335.
McAusland, J., Stained glass, 188.
McBride, R., & Co., Fabrics, 148.
McCallum, Iron ore, 64.
McCallum, Creas, & Sloan, Carpets, 122.
McClees, J. E., & Son, Chairs, tables, 112.
McClement Bros., Cards, 132.
McCloskey, Bro., & Co., Paints, 105.
McCollough Iron Co., Blooms, 56.
McCook, G. W., Ohio, 13.
McCormick, J., Alarm, 331.
McCormick, R. C., U. S. Commissioner, 9.
McCoy, Prof., Animals, 163.
McCoy & Roberts, Ranges, 375.
McCoy, W. W., U. S. Commissioner, 9.
McCrae & Co., Knit goods, 189.
McCrossan & Farr, Linen, 119.
McDermott, F., Globes, 331.
McDermott, J., & Bros., Buggy, 381.
McDermott, J., & Co., Stone, 54.
McDonald, Alex., Rustic rock work, 52.
McDonald, Charles, Drawings, 334.
McDonald, D., Photographs, 162.
McDonald, Geo. J., Stone, 72, 73.
McDonald, J., Pianos, 333.
McDonald, R. A., Coal, 71.
McDonald, R. N., Gypsum, 73.
McDonald, T. E., Wringer, 377.
McDonnell, Kline, & Co., Shirts, 125.
McDougall, J., & Sons, Sandstone, 73; Iron, 74.
McDougall, John, Ore, 71; Blooms, 74.
McDougall, S. T., Stoves, 375.
McEachem, Daniel, Chain, 141.
McElroy, P. J., Syringes, 136.
McEwan, J., Sideboard, 160.
McEwen, G., Jams, 167.
McFadden, G., Cornets, 333.
McFarlane, Peppers, 180.
McFarlane, A., Wool, 168.
McGee, J. G., & Co., Shawls, etc., 150.
McGie, James, & Co., Ore, 65.
McGill, Geo. W., Fasteners, 129.
McGill University, Calendars, etc., 342.
McGregor, D., Clay, 73.
McGregor, L., Sandstones, 72.
McHardy, D., Judge, Gr. XV., 17.
McIlroy, T., Furniture, 135.
McIlvain Bros., Drugs, 102; Facings, 107.
McIlwraith, J., Gas pipe, 161.
McIntire, J. F., Carriages, 381.
McIntire, S., Carriages, 381.
McKay, F. C. D., Rollers, 113.
McKay, William, Cement, 72; Ink, 187.
McKee, J. D., Woolen goods, 121.
McKeen, David, Coal, 71.
McKellar Bros., Ores, 70.
McKellar, D., Gold in quartz, 70.
McKenney, T., Relics, 328.
McKensie, Clothing, 189.
McKensie, J. F., & Co., Coffee, 163; Oatmeal, 164.
McKenzie, M., Locks, 190.
McKeone, Van Haagen, & Co., Soaps, 103.
McKesson & Robbins, Drugs, etc., 102.
McKinley, John, Chairs, 109.
McKnight & Rohrer, Rims, 379.
McLanachan, J., Wool, 183.
McLean, G. C., Oils, 251.
McLear, A., Carriage, 381.
McLear & Kendall, Phaeton, 380.
McLennan, Jos., Gypsum, 74.
McLintock, James, & Sons, Quilts, etc., 150.
McLoughlin Bros., Books, 326.
McMann, G. N., Clay, 73.
McMichael, M., Pennsylvania, 14.
McNally, J., Idaho, 12.
McNally, W. G., Stone, 53.
McNaught & Smith, Carriages, 154, 383.
McNeil, Irving, & Rich, Paper, 131.
McNeil, J., U. S. Commissioner, 9.
McPherson, A., Fibres, 180.
McPherson, T., Corn sacks, 161.
McPherson, T., & Co., Jute, 164.
McQuarrie, John, Marble, etc., 72.
McQueen, William, Coal, 71.
McTear & Co., Roofing, 148.
McVicar, George, Amethyst, 71.
Meadows, J. G., Salt, 173.
Mechanics' Institute, Platinum, 70.
Mechanics' Mills, Printing cloths, 118.
Mechanics' School of Arts, Wax seal, 340.
Mechlin Savings Bank, Reports, 360.
Meda, B., Calico, 233.
Medicine, Faculty of, Theses, 366.
Medina, Government of, Crystals, 96; Kena, 292; Plants, 304; Basket, 305; Dates, 307; Wheat, 308; Honey, 312.
Medina, Luis R., Whetstones, 85.
Medinaceli, Duchess, Sal gemma, 270.
Medinaceli, Duke of, Ferruginous water, 91.
Mee, C., & Co., Melodeon, 342.
Meeker, D. M., & Son, Iron bronzes, 141.
Meeker, N. C., Alternate, 9.
Meerens, C., Music, 359.
Meeus, J., Newspaper, 359.
Meeus, M. & J., Sulphur, 215.
Megargee Bros., Paper, 131.
Megata Kaian, Picture, 249.
Mehadani, A., Boots, 301.
Mehamed Bin Adoura, Tissues, 293.
Mehamed Mousseri, Caps, 301.
Mehamed Tourmae, Belt, 303.
Mehamoud Dekiz, Silk, 297.
Mehanedji, F., Brandy, 313.
Mehemed, Salt, 291.
Mehemed, A., Wool, 314.
Mehemed Abdul Hamid, Garments, 299.
Mehemed Agha, Coal, 97; Fabrics, 294, 295; Carpet, 296.
Mehemed Aiché, Paste, 312.
Mehemed Ali, Calicoes, 294; Boots, 301; Smokers' articles, 303.
Mehemed Ali Agha, Beans, 309.
Mehemed bin Abdoulah, Spoons, 305.
Mehemed, Cumin, 309.
Mehemed Dervich, Fan, 303.
Mehemed Djebali, Flour, 312.
Mehemed, E., Skins, 311.
Mehemed Effendi, Linen, 294, 295; Almonds, 307; Indian corn, 308.
Mehemed Emin, Fabrics, 298.
Mehemed Galz Effendi, Marshmallow, 307.
Mehemed, H., Vases, 292; Fabrics, 295, Carpet, 296; Clogs, 301; Peas, 309.
Mehemed, K., Skin, 311.
Mehemed Kirkit, Carpets, 296.
Mehemed, Larik, Saddle cloth, 305.
Mehemed, M., Boots, 301.
Mehemed, M., Hemp, 314.
Mehemed, M., Towels, 295.
Mehemed, Malatia, Paste, 312.
Mehemed, Mosul, Saddle bag, 304.
Mehemed Nablus, Drum, 371.
Mehemed, O., Leather, 310.
Mehemed Oglou Alichan, Carpets, 296.
Mehemed Ousta Hadji, Cup, 292; Jacket, 299; Ropes, 305; Sheets, 307.
Mehemed, Piseren, Soap, 291.
Mehemed Rechio, Pistachio nuts, 307.
Mehemed Seid, Beans, 309.
Mehemeda, Morocco, 310.
Mehemeda, Cus-Kuri, Rye, 308.
Mehemeda, Marach, Horse shoes, 97.
Mehemeda, N. du T., Fabric, 293.
Mehemet Agha, Sumac leaves, 306.
Mehr, G., Dials, 330.
Mehulourt, S., Coverlet, 296.
Meidel, F., Safes, 223.
Meier, J. C., Chemicals, 202.
Meighen Bros., Phosphate of lime, 74.
Méilot, A., Music method, 343.
Meinecke, A., Wisconsin, 14; Baskets, 380.
Meinhold, C. C., & Sons, Atlas, 348.

Meirelles, A. M. de, Salt, 283.
Meisel, C. J., Manuals, 354.
Meissner & Buch, Lithographs, 348.
Meissner, C. F., & Son, Papers, 205.
Meissner, O., Books, 348.
Mejias Moreno, José, Gypsum, 91.
Mekon, K., Shawls, 296.
Melbourne, City of, Photographs, 162.
Melbourne, Com. for, Boxes, etc., 162; Wheat, etc., 163.
Melbourne Glass Bottle Works Co., 160.
Melbourne, Lands & Agri. Dept., Woods, 162.
Melbourne Meat Preserving Co., Meats, 164.
Melbourne, Penal Dept., Leather, 163.
Melendez, Carvajal, & Co., Hats, 276.
Méliès, L. S., Boots, 197.
Melillo, G., Jewelry, 234.
Melindre, J. d'Oliveira, Matting, 284.
Melissari, G., Essences, 232.
Melkior, P. J., Liquors, 218.
Mellin, G., Food, 153.
Mellinger Jump Seat Co., Seats, 381.
Mello, A. J. T., Wax candles, 283.
Mello, Antonio M. de S., Beadwork, 288.
Mello, G. C. de, Urn, 254.
Mello Gil Tavares, Yarn, 286.
Mello, J. C. de, Cotton fabrics, 285.
Mellon, F. D., Wines, 164.
Mellor & Rittenhouse, Extracts, etc., 101.
Melton, W., Starch, 177.
Melville, James, Wine, 172.
Memla, Memour, Salt, 291.
Menard, Weather strips, 373.
Mender, Railway, 267.
Mendes, C., Atlas, 367.
Mendes, J. O., Sulphur, 82.
Mendes, M. J., Impressions, 370.
Mendez, B. A., Fabric, 280.
Mendheim, G., Plans, clay, 202.
Mendiola & Co., Cloth, 274.
Mendona, T. A. de, Blue, 283.
Mendonca, Manuel Fernandez de, Spools, 290.
Mendoza, P., Cushion, 281.
Mendoza, Prov. Com. of, Minerals, 83; Mat, 256; Herbarium, 259.
Menchoz, Priest of Mount Athos, Spoons, 305.
Meneses, N., Claret, 262.
Menezes, C. de, Music, 366.
Mengo, F. da Silva, Books, 369.
Menici, A., Baths, 233; Appliances, 235.
Mennesson, E., Instruments, 345.
Menshikoff's, W., Sons, Calico, 316.
Menteché, Gov. of, Incense, 292.
Mentefek, Gov. of, Garment, 300; Wheat, 308.
Mentzel, A., Books, 348.
Menzel, W. E., Garnets, 209.
Menzeurlé, Fathma, Gauze, 299.
Mer Allah, Shirt, 299.
Mercer Pottery Co., Earthenware, 108.
Mercer, R. W., Pottery, 329.
Mercer, Thomas, Marine chronometers, 339.
Merchants' Mfg. Co., Printing cloths, 118.
Merchants' Salt Co., Brine, 74.
Merchants' Shot Tower Co., Shot, 133.
"Mercurio" Printing Office, Books, 261.
Merdik, Mardin, Sesame, 308.
Merick, E. J., Brooms, 380.
Meriden Britannia Co., Table ware, 113.
Meriden Curtain Fixture Co., Fixtures, 109.
Meriden Cutlery Co., Cutlery, 139.
Meriden Silver Plate Co., Glass, 113.
Meriden Woolen Co., Cassimeres, 120.
Merino & Co., Surgical instruments, 254.
Merkelbach & Wick, Pottery, 202.
Merkioss, Mamor, Mulberries, 312.
Merlini, Alfonso, & Enrico Bros., Oil, 231.
Merlo, Baron V., Olive oil, 232.
Merriam, G. & C., Books, 326.
Merrick Thread Co., Bobbins, 116.
Merrill, S., Panel centre, 110.
Merrille, A. H., Slate, 53.
Merrimac Mills, Calicoes, 119.
Merriman, J., Crayfish, gooseberries, 170.
Merritt, J. P., Chronotable, 341.
Mersereau, W. T. & J., Hardware, 141.
Merssine, Government of, Pitch, 306.
Mervine, S. P., jr., Apparatus, 135.
Merwe, J. H. van der, Grapes, 170.
Merwin, Hulbert, & Co., Fire arms, 133.
Meskout, Serros, Earrings, 302.
Mesnier, Raul, Cigarette paper, 289.
Mesquita, P. J. de, Linen fabric, 285.
Mesrouhout, Bracelets, 302.
Messner & Co., Harmonicas, 349.
Mestra, P., Drilling, 273.
Mestre, A. de, Apparatus for corking, 194.
Metacomet Mills, Printing cloths, 118.
Metal Stamping Co., Buckles, etc., 379.
Metallic Cartridge Mfy., Cartridges, 319.
Metallurgical Co., Bolts, 279.
Metallurgical Coal Pit Co., Coal, 89.
Metcalf, D. H., Sheets, 136.
Metcalfe, J., Clay, 73.
Met-en-Meerzorg Plantation, Sugar, 175.
Methodist Book Concern, Books, 326.
Methuen Mill, Bagging, 118.
Metropolitan Washing Machine Co., 377.
Metrouge, B., Tissue, 298.
Mets & Willse, Bookbinding, 131.
Metz, F., Metal, 201.
Metzler, A., Minerals, 83.
Metzner, B., Laces, 209.
Meunier & Co., Linen, 195; Curtains, 197.
Mexican Mining Society, Minerals, 86; Newspapers, 266.
Mexican Scientific Society, Books, 267.
Mexico, State Gov. of, Salts, 265; Woods, 267; Coffee, 268; Botanical collection, 269.
Mey & Widmayer, Art publications, 348.
Meyenberg, S. M., Satins and silks, 123.
Meyer, A. F. W., Apparatus, 342.
Meyer, Behn, & Co., Various products, 176.
Meyer Bros., Silk bolting cloth, 212.
Meyer, C., & Sons, Pianos, 332.
Meyer & Co., Silk, 234.
Meyer, F. W. A., Gun, 190.
Meyer, Heinrich, Ivory goods, 205.
Meyer & Henckel, Butter coloring, 223.
Meyer, J., Damask goods, 203.
Meyer, James, jr., & Co., Disinfectant, 102
Meyer, Jonasson, & Co., Skirts, 123.
Meyer, L., Music, 322.
Meyer, Wæspi, & Co., Undergarments, 213.
Meyers, Simon S., Stove polish, etc., 104.
Meylan & Mertens, Ed., Gold chains, 213.
Meyr's Nephew, A., Glassware, 208.
Mez, C., & Son, Sewing silks, 203.
Miakotin, J., Hats, 317.
Miasky Gov. Gold Mines, Ores, etc., 98.
Michael, F. M., Limestone and lime, 54.
Michaelis, F., Vinegar, 240.
Michaelis & Kaskel, Shirts, 124.
Michel, L., Decorations, 194.
Michel, P., Chemicals, 192.
Michels, I. C., Book, 327.
Michelsen, John B., Cutlery, 230.
Micheré, Government of, Lignite, 96.
Michigan, State of, Minerals, etc., 51; Iron, etc., 59; Educational, 322.
Michigan Stove Co., Stoves, 375.
Michon, André, Cotton fabrics, 285.
Micka, K., Gloves, 208.
Middleburg & Flushing Chamber of Commerce & Industry, Chart, 361.
Middlesex Co., Woolen goods, 120.
Middleton, C. W. & H. W., Iron, steel, 56.
Middleton, Thomas J., Magic lanterns, 339.
Middletown Plate Co., Plated ware, 113.
Middletown, T. D., Laces, 174.
Middletown Tool Co., Hardware, 141.
Midgley, Mrs., Flowers, 157.
Midnight Yarn Co., Yarns, 120.
Miedel, D., Ventilator for chimneys, 216.
Mier, A., Salts, 265.
Migliaccio, R., Paper, 234.
Miguel, Garcia Manuel de, Salt, 270.
Mihalgazi, Government of, Leaves, 306.
Mihali, S., Cocoons, 314.

Mijas, Corporation of, Marbles, 90.
Mikael, K., Skin, 310.
Mikahil, Seboul, Garments, 299.
Mikahili, H., Garments, 300.
Mikahilidès, Photographs, 371.
Mikahl Agha, Jacket, 299; Skins, 310.
Mikail, Lace, 301; Earrings, 302.
Mikail Antiki, Saucer, 303.
Mikali, H., Coverlets, 299.
Mikali, Nicoladi, Oranges, 312.
Mikali, R., Fabrics, 298; Prunes, 312.
Mikhaeloff, B., Wood, 320.
Mikhaeloff, Mrs., Tureens, 320.
Mikhailoff, A., Costume, 318.
Mikhailoff, T., & Son, Wool, 317.
Mikiani, I., Cocoons, 314.
Milaki, N., Gauze, 299.
Miles, Bros., & Co., Brushes, 142.
Miles, E. T., Massachusetts, 12.
Milewski, J., Telemeter, 372.
Miliani, C., Crockery, 233.
Military Engineering Dept., Plans, 373.
Military Pyrotechny, Fusees, 271.
Militinous, Government of, Yellow earth, 96.
Millar, J., & Co., Glass, 147.
Millas, Gimps, 107.
Miller, A. R., & Son, Carriage jack, 382.
Miller Bro. Cutlery Co., Cutlery, 139.
Miller Bros., Microscope, 331.
Miller, C. H., Bureau of Horticulture, 10.
Miller, D. K., Lock Co., Locks, 141.
Miller, E., & Co., Bronzes, 114; Oilers, 138.
Miller, E. W., Dakota, 12.
Miller & Eastmead, Lanterns, 114.
Miller, Geo. F., Hats, 126.
Milier, H. F., Pianos, 332.
Miller, Hugh, & Co., Pomade, 188; Tick destroyer, 190.
Miller, J. A., Models, 382.
Miller, J., & Co., Ropes, 161.
Miller, J. S., Trusses, 136.
Miller, J. W., Plumbing, 115
Miller, Jeremiah, Nevada, 13.
Miller, James, Books, 326.
Miller & Krips, Bronze, 139.
Miller, L. H., Safes, 109.
Miller, Metcalf, & Parkins, Steel, 55.
Miller, T., Hats, 204.
Miller, Thos., Umbrellas, 127.
Miller, W., Ranges, 376.
Miller, William J., Engravings, 336.
Miller, William P., & Co., Lubricants, 103.
Miller, Wm. D., Fire arms, 133.
Miller's Bible & Publishing House, 328.
Miller's Falls Co., Tools, 138.
Millet, J. G., Graphite, 73.
Milliani, P., Paper, 234.
Milliken, Eugene, Polish, 104.
Million, Guiet, & Co., Carriages, 200.
Million & Servior, Silks, 196.
Mills, E., & Co., Braces, 138.
Mills & Hutchinson, Tweeds, 189.
Mills, J. D., Birds, 251.
Mills, J. M., Michigan, 13.
Mills, M. A., Inks, 220.
Millville Mfg. Co., Cambrics, 119.
Millward, H., & Sons, Needles, 151.
Milner & Herd, Stone, 73.
Milner, J. F., Alabama, 11.
Milner, Wm., & Sons, Sewing silks, 150.
Milton Furnace & Coal Co., Ores, 50; Iron, 58.
Minassian Miguerdji, Cheese, 310.
Mindanao, Provincial Board of, Fabrics, 280; Arms, 282.
Mindoro, Provincial Board of, Basket, 280.
Mindovsky, B. & B., Yarn, 316.
Miner, J. G., Lamps, 114.
Mineral Water Stock Co., Mineral water, 78.
Mines, Dept. of, Ores, etc., 64, 94; Iron, plans, 95; Photographs, 370.
Mineur, C. G., Paper, 227.
Minglanilla, Corporation of, Sal gemma, 270.
Mingoi Vincenzo, Olive oil, 231.
Minheimer, L., Buttons, 318.
Mining Department, Periodicals, 99.
Mining Engineers, Ores, 88.
Mining Union, Lignite, 89.
Minnesota, Educational Dept. of, 325.
Minns, A. C. J., Necklaces, 173.
Minoda, C., Ornaments, 244; Porcelain, 245; Albums, 247; Vases, 248; Pictures, 249.
Minodoro, S., Wool, 296.
Minong Mining Co., Copper, 48.
Minot, Hooper, & Co., Cotton goods, 116.
Mint and Stamped Paper, General Direction of, Engravings, etc., 370.
Minton China Works, Enameled tiles, 146.
Minton, Hollins, & Co., Tiles, 146.
Mintzer, S. J. W., Steel, 57.
Mira, J. P. de, Bricks, 284.
Miran Moumdjia, Frame, 293.
Miranda & Sons, Salt, 283.
Mirkovski Paper Mill Co., Paper, 318.
Miro Cerdá, Ores, 88.
Miró y Cerdá, C., Coal, 89.
Miró & Corominolo, J., Dye, 271.
Miró, Sons of Gabriel, Cloth, 274.
Mirrada, José Pedro Mendas, Fabrics, 286.
Missa Yian, Seeds, 307.
Missenharter, C., Musical instruments, 334.
Mission Woolen Mills, Blankets, 121.
Missir, J., Wine, 313.
Mississippi Mills, Yarns, etc., 118; Cassimeres, 120.
Missouri, Educational Dept. of, 323.
Missouri, State of, Ores, 51.
Missouri Valley Novelty Works, Safe, 377.
Mitchell, A., Judge, Gr. IX., 16.
Mitchell, D. G., Judge, Gr. XXVII., 19.
Mitchell, F. W., Pennsylvania, 14.
Mitchell, G. E., Cologne, 106; Plasters, 134.
Mitchell, Henry L., Coal, 71.
Mitchell, J. E., Oilstones, 139.
Mitchell, Mrs. S., Gum, 182.
Mitchell, R., Judge, Gr. VII., 16.
Mitchell & Rammelsburg Furniture Co., Furniture, 109.
Mitchell, S. A., Atlases, 321.
Mitchell, Stevenson, & Co., Stoves, 375.
Mitchell, Vance, & Co., Gas fixtures, 114; Bronzes, 128; Clocks, 330.
Mitchell, Wilson, Tiles, etc., 54.
Mitcheson, Mrs. M. J., Spoon, 113.
Mitchez, Y., Cotton, 293.
Mitscheré, Marie, Hose, 299.
Mitsui, Pictures on silk, 247.
Mix, G. I., & Co., Spoons, 113.
Miyagawa, T., Vases, 244.
Miye-ken, Local Gov't of, Gauze, 245.
Mneff, J., Chests, 320.
Moat, E., Springs, 344.
Moberg Machine Co., Range, 226.
Mochan, Albert, Clay, 73; Bricks, 188.
Mockridge, E., & Co., Azumea, 102.
Moco, S., Photographs, 178.
Moedas, J., Building materials, 283.
Moeller, A , Piano, 333.
Moeller, C. H., Underwear, 123.
Moeller, P. W., Frame, 321.
Moeser, W., Books, 349.
Moestue, Thv., & Co., Slate, 80; Iron safe, 229; Pasteboard boxes, 230.
Moffitt, S. J., Virginia, 14.
Mohadjeri Nahe, Skin, 310.
Mohamed, Hair, 314.
Mohammed, H., Thread, 295; Carpet, 296.
Moir, J., Shot, 182.
Moiraghi, A., Shoes, 234.
Moisant, A., Frame, 195.
Moisic Iron Works, Iron, 74.
Moitrier, L. B., Baskets, 200.
Molah Ahemed, Beans, 309.
Molás & Co., Clay, 272.
Molfino, Luigi, Lithographic stone, 81.
Mölier, C., Clothing, 223.
Molina, A., Medicines, 250.
Molina & Carranza, Ore, 85.
Molinari, J., Arm chair, 256.

Mollah Youssouf, Wooden mortar, 305.
Mollat Ahmed, Wool, 295.
Moller, Peter, Cod-liver oil, 229.
Mollina, Corporation of, Mineral waters, 91.
Mollins, J., Curtains, 272.
Moltchanoff, W., Faience, 315; Lace, 318; Tureens, 320.
Molto y Sanz, J., Satin, 274.
Molto y Valor, F., Cloth, 274.
Mombjian, K., Embroideries, 301.
Mombusho, Department of Public Education, Educational exhibit, 247.
Mon, C., Soaps, 271.
Monadnock Mills, Quilts, etc., 117.
Monastery of the Good Shepherd, Handkerchief, 261.
Monastir, Government of, Wines, 313.
Moncrieff, J., Wheat, 163.
Mondego, Direction of the Works of, Salt, 283; Tools, 289; Mats, 290; Book, 369.
Mondoñedo, Institute of Secondary Instruction of, Marbles, 90.
Mondron, Leon, Glass, 215.
Moneo & Mirat, Soap, 271.
Monge & Sanz, Essences, 271.
Monges Iron Co., Iron ore, 94.
Monguillot, E., Music, 368.
Monitor Furnace Co., Iron ores, 48; Iron, 58.
Monitor Oil Stove Co., Stove, 375.
Monk, D. J., Malt liquors, 159.
Monllor & Sons, M., Cloth, 274.
Monner, Francisco, Ores, 89.
Monnoyer, J., & Son, Glass, 215.
Monouk, Plate, 292.
Monriz, Gabriel, Horse bit, 92.
Monroe Furnace, Ores, 49; Iron, 58.
Monroe Organ Reed Co., Reeds, 332.
Montagnac, E. de, & Son, Velvet, 195.
Montagnon, A., Faience, 193.
Montandon, C., Spirals, 355.
Montane, R., Claret, 262.
Monteil & Cassaynes, Report, 345.
Monteil, Duart, Book, 267.
Monteiro & Co., Inks, 252.
Montes de Oca, Miss B., Embroideries, 266.
Montes, M. A., Glass, 284.
Montessuy & Chomer, Crapes, 196.
Montez, R. Oca, Essays, 267.
Montgomery, R. M., Stone, 54.
Montiel, José, Boots, 276.
Montinho, Luiz Pinto, Jewelry, 288.
Montinho, Souza F. de, Jewelry, 288.
Montllor Bros., Cloths, 275.
Montoro, Corp. of, Sulphurous water, 91.
Montoro, Francisco, Galena, 87.
Montoux, Emil W., Pictures, 129.
Montpelier Mfg. Co., Carriages, 381.
Montreal Plumbago Mining Co., Stove polish, 73, 137.
Moodie, D., Oyster shells, 170.
Moody, H. S., U. S. Commissioner, 9.
Moody & Nelson, Native copper, 70.
Mook, John Peter, Extracts, 207.
Moonta & Wallaroo, Ores, 166.
Moore, C., Woods, 158; Fibres, 159.
Moore, C. F., Porcelain, 241; Jewelry, 242.
Moore, C. W., Alternate, 9.
Moore & Co., Tin ingots, 64.
Moore, D., & Co., Tubular lanterns, 188.
Moore, G., Clay, 73; Neck cutter, 124.
Moore, H., & Son, Washer, 377.
Moore, Hon. W., Map, 182.
Moore, J., Judge, Gr. XX., 18.
Moore, Jos. H., Earthenware, 107.
Moore, Leopold, Wrappers, etc., 123.
Moore, Th., Models, 189; Handles, 190.
Moore, York, & Howell, Furniture, 109.
Moorhead Clay Works, Pipes, 106.
Moorhead & Co., Iron, 56.
Mora, D., Extract, 232.
Mora, M., Matting, 273.
Moraes, J. C. de, Hats, 254.
Moraes, José Goncalves, Ores, 94.
Moraes Rozeira, M. G. de, Pyrites, 82.
Moraes, T. C., Saddle, 254.
Moragrega & Soldevila, T., Vessel, 272.
Moral, F., Geography, 266.
Morales, L., Embroidery, 281.
Morán, R. S., Cross, 277.
Morand, A., Bowl, 316.
Morand & Tourneur, Harmoniums, 345.
Morandi, Feliesta, Books, 365.
Morandi, G. M., Dress, 234.
Morandi, P., Ink, 232.
Moratski, A., Plaster of Paris dressings, 205.
Moravia Ironware Industry & Trade Co., 211.
Morawitz, M., Plans, 352.
Moreira, A. B., & Bro., Cast iron pots, 284.
Moreira, F. J., & Co., Chairs, 253.
Moreira, M. J., Counterpane, 285.
Moreira, N. J., Judge, Gr. IV., 16; Treatise, 366.
Moreira, V. de M. Custodia, Damask, 287.
Morel, A., Bronze, 194, 199; Glass, 215.
Morel, Chas., & Sons, Silks, 122.
Morel, Mrs. A., & Co., Books, 343.
Morelos State Gov., Vases, 265; Woods, 268.
Moreno, Widow of, Flannels, 274.
Moreno y Sanchez, F. T., Cloth, 274.
Morewood, E., & Co., Tin plates, etc., 62.
Morgan & Headley, Jewelry, 127.
Morgan, M. C., Implements, 328.
Morgan, R. P., jr., Elevated railway, 382.
Morgan's, Enoch, Sons, Sapolio, 103.
Mori, Y., Vases, 244.
Morita, B., Silks, 246.
Morley, J. & R., Gloves, 150.
Morley, V., Mallets, 190.
Morning Star Royal Society, Books, 359.
Moron, Corp. of, Stone, 90; Bricks, 272.
Morre, G. J., Drawings, 361.
Morreale, E., Medicines, 235.
Morrell, D. J., U. S. Commissioner, 9.
Morril, A., Extracts, 266; Oils, 268.
Morris, E., & Co., Hats, 126.
Morris & Haines, Heaters, 375.
Morris, J. G., Maryland, 12.
Morris, J. W., Clock, 342.
Morris, R. C., Plans, 334.
Morris, T. A., Judge, Gr. XVIII., 18.
Morris, Tasker, & Co., Iron, 59.
Morris, Thomas, Saddle, 156.
Morrison, Arthur B., Solution, etc., 101.
Morrison, E. H., Model, 334.
Morrison, L. K., Tube wells, 162.
Morrison, W. A., Precious stones, 71.
Morse, B. F., Judge, Gr. XVII., 18.
Morse Bros., Stove polish, 54.
Morse, Geo. D., & Co., Soap, 187.
Morse, Kaley, & Co., Cotton, 116.
Morse, L., & Son, Folding settee, 112.
Morson & Son, Chemicals, 144.
Mortimer, J. R., Organ palate, 333.
Morton, Geo., Pig lead, 70; Chronometer, 339.
Morton, J., Gold articles, 131.
Morton, J. S., Nebraska, 13.
Morton, Thos., Sash chain, 141.
Morton, W. Scott, & Co., Furniture, 147.
Moser, Chas., & Co., Artists' colors, 105.
Moser, L., Glass articles, 208.
Moser, Robert, Churches, 356.
Mosier, J. L. H., Iron work, 380.
Mosla Mahmoud, Sheet, 296.
Moss & Co., Stationery, 131.
Moss, Geo. A., Inks, etc., 105.
Moss Manufacturing Co., Shirtings, 118.
Mossop & Garland, Barks, 170.
Most, J. H., Furniture, 111.
Mostardini, A., Perfumery, 232.
Mostue, T., & Co., Scales, 364.
Mosul, Government of, Coal, 97; Shawls, 296; Boots, 321; Mint, 304; Madder root, 306; Maize, 308; Cotton, 313.
Mota, C. S. da, Rose-colored argil, 82.
Motala Mechanical Co., Iron, 79.
Motala Mechanical Works, Hoops, 227.
Mott, J. L., Fountains, 139; Iron, 378.
Motta, Augusto Antonio da, Silk, 287.

Motta, J. M., Bells, 369.
Mottett, J., & Co., Chemicals, 193.
Mottie, L., Tobacco and cigars, 218.
Mottl Sons, M., Men's clothing, 208.
Mottura, I. O., Pasteboard, 234.
Moulton, R., Work box, 169.
Mounidjian Kirkor, Traveling bag, 304.
Mounouk Ozlou, Fabric, 299.
Mount Bischoff Tin Mining Co., Tin, 68.
Mount & Co., Glassware, 160.
Mount Holly Paper Co., Paper, 131.
Mount Marley Co., Fire brick, 179.
Mount Marley Tin Mining Co., Tin, 67.
Mount Perry Copper Mining Co., Copper, 67.
Mount Savage Furnace, Ores, 49; Iron, 58.
Mount Vernon Co., Ducking, etc., 117.
Mount Vernon Furnace, Ores, 50; Pig iron, 56.
Mount Washington Glass Wks., Fountain, 108.
Mountain Engineers, Madrid, Ropes, 273.
Mountain Engineers, Corps of, Oil, 271.
Moura, J. C. de, Cassimeres, 253.
Mourad Agha, Fabrics, 298.
Mourad Kasson, Carpet, 296.
Mourad Oglou Ali, Scammony, 304.
Mourazedé, Aleppo, Rice, 308.
Mourès & Co., Books, 237.
Mouret, Globe, 343.
Mourouk, O., Towels, 294.
Mourouk Oglou Ohanis, Gauzes, 298.
Moury, Bey, Madder, 292.
Moussa Agha, Skin, 310.
Moussa Chaouch O. I., Shirt, gauzes, 299.
Moussa Oglou Veli, Rye, 309.
Moussa, P., Cotton, 313.
Mousse Kapsal, Woolen, 295.
Moussin Effendi, Cereal, 309; Wax, 312.
Moussin Oglou Seid, Barley, 308.
Moustapha, Salt, 291; Holders, 303; Cocks, 305; Coffee, 313; Scale, 371.
Moustapha Agha, Garment, 299; Vest, 300; Box, 303; Peas, 308; Barley, 309; Raisins, 312; Flutes, 371.
Moustapha, Ahmed Oglou, Pitch, 306.
Moustapha Ahmoud, H., Skins, 311.
Moustapha Ani, Couriers' bags, 304.
Moustapha, Bandjak, Seed, 307.
Moustapha Bey, Sheeting, 293; Napkins, 301.
Moustapha, Effendi, Chalk, 96; Brazier, 293; Silk, wheat, 297; Organzine, 298; Madder, 306; Leather, 310.
Moustapha, Hadji, Iron stone, 96; Iron, 97; Slippers, 301; Opium, 304; Gum, 306; Scammony, 309; Skins, 311; Wool, 314.
Moustapha, Malatio, Peaches, 312.
Moustapha, Miss, Trousseau, 299.
Moustapha, Mosul, Pistol cases, 304; Saddle cloths, 305.
Moustapha, Nevrekop, Casks, 305.
Moustapha Oglou, Purses, 303.
Moustapha, Omer, Halter, 305; Leather, 310.
Moustapha Ousta, Cane, 303.
Moustapha, S., Coverlet, 296.
Moustapha, T., Wool, 295.
Moyle, Edward, Cord, 155.
Mozjookhin's, T., Sons, Silk, 317.
Mozoncillo, C., Fan, 277.
Mt. Union College, Implements, 328.
Mück, W., Bridles, 320.
Mucury, Colony of, Precious stones, 82.
Mueller, J. M., Stone, 53.
Mühlbacher, Carriages, 200.
Muhr's, H., Sons, Rings, 126.
Muir, R., Sugar, 180.
Muirhead, R., Cigars, 158.
Mujica, E. S., Guano, 255.
Mulder, L., Periodicals, 360.
Mullan, C. da la Elguera, Hair flowers, 259.
Müllender, S., Wool, 219.
Müller, C. A., Gutstring, 349.
Müller, C. E., Books, 348.
Muller, E., & Co., Enameled tiles, 193.
Müller, H., Woolens, birds, 223.
Muller, Hermann, Glass articles, 207.
Muller, J. A., Gauge, 361.
Müller, Johs., Playing cards, 213.
Müller, L., Artificial eyes, 205.
Muller, N., Meteoric iron, 86.
Müller, P. A. E., Honey, 224.
Muller's, Nicholas, Sons, Stationery, 130.
Muller's Sons, N., Thermometers, 329.
Mulliner, H., Phaetons, etc., 383.
Mulliner, H., & Co., Carriages, 154.
Multesim Abdoulah, Pyrites, 96.
Multesim Oulah, Sediment, 96.
Multesim Tireboli, Pyrites, 96.
Munday, G., Implements, 328.
Mundy, D. L., Views, 156.
Muneaki, K., Coffee sets, 245.
Munger, John W., Soap, 103.
Munich-Dachau Paper Mill, Papers, 205.
Municipal Athenæum, Marble, 93.
Municipal School Boards, Books, 366.
Municipality of Chaux-de-Fonds, Plans, 356.
Municipality of Geneva, School house, 356.
Muniré, Lace, 299,
Muniz, Ramon, Paintings, 263.
Munkedal Manufacturing Co., Paper, 227.
Munksjö Paper Factory, Paper, 227.
Munktell, J. H., Paper, 226.
Munn, A. L., Maizena, 158.
Munn & Cochner, Clay, 73.
Muñon, Coal Pit Society of, Coal, 89.
Munoz, B., Cover, 279.
Munro, A., Wines, 158.
Muñoz Bello, Francisco, Phosphate of lime, 87.
Muñoz Iñigues, J., Rockets, 272.
Muñoz, Marcelino, Salt, 270.
Munson, D., Rods, 331.
Munson Manf'g Co., Undershirts, 123.
Muntaner & Bermudéz, Shirts, 257.
Munzinger, Conrad, Felt, 212.
Murakami, T., Canes, 247.
Murat & Co., Jewelry, 197.
Murcia, Province of, Corps of Mining Engineers, Marble, stone, 90; Waters, 92.
Murcía, Prov. Dep. of, Delft, 272; Esparto work, 273; Shawls, 275; Sandals, 276.
Murdock, J., New York, 13.
Murguria, Books, 266.
Muricy, J. C. da S., Tiles, 252.
Muricy, J. C. da Silva, Coal, etc., 82.
Murga, N., Salt, 255.
Muro, A., Inks, 255.
Muro, Froilan, Ore, 83.
Murphy, A. A., Stools, 188.
Murphy, E., Centre flowers, 162.
Murphy, P., Missouri, 13.
Murphy's, W. F., Sons, Blank books, 132.
Murray, A., Jams, 167.
Murray, Andrew, Illustrations, 338.
Murray, Edmund W., Phosphate of lime, 74.
Murray, J., Wool, 168.
Murray, Wm., California, 11.
Murtaza, Hadji, Box, 305.
Murtazi, H., Secretary, 292.
Murtro y Turello, Widow of A., Cloaks, 274.
Muschialli, L., Pier glass, 160.
Museum of Artillery, Gun, 278.
Museum of Fine Arts, Porcelain, 315.
Museum, South Kensington, Objects, 339.
Musgrove & Son, Tin, 378.
Muskett, E. B., Galena, 169.
Muspratt Bros. & Huntley, Soda crystals, 144.
Muspratt, James, & Sons, Soda, 144.
Mussa Soleiman, Pernécone, 305.
Musulmé, Madame, Cloth, 294.
Musumeci, Gulli Gaetano, Liquorice, 231.
Mutual Aid Society, Statutes, 357.
Mutual Benefit Asso., Reports, 360.
Muzet & Co., Hair work, 198.
Myagawa, C., Fans, 247.
Myburgh, N., Wheat, 170.
Myers, A. G., Plumbers' materials, 377.
Myers, A. J., Ores, 50.
Myers, G., Tanks, 375.
Myers, Uhl, & Co., Marble, 53.
Myring, J., Barley, 163; Malt, 164.
Myteline, Government of, Graphite, 97.

N.

Nabeshima, S., Crapes, 246.
Nabinho, J. da Fonseca, Twine, 285, 286.
Nachet, A., Microscopes, 345.
Nachtmann, J., Aquariums, 211.
Nacken, G. H., Cotton, mixed goods, 203.
Nadporosky, M., Laces, 318.
Naeff, G & M., Belting, 361.
Næss, H. S., Boots, shoes, 229.
Nagasaka Suiho, Water color, 249.
Nagata, Y., Rattan, 247.
Nagaon, Mr., Oil, 181.
Nagle, Cook, & Ewing, Paper hangings, 133.
Nairn, David, Tomato sauce, 156.
Nairn, Michael, & Co., Oil cloths, 149.
Nakach, D., Cocoons, 314.
Nakagawa Joyeki, K., Vase, 249.
Nakagawa, Y., Silk, 246.
Nakamura, H., Bowls, 245.
Nakamura, M., Crapes, 246.
Nakashima, R., Vases, 244.
Nakatsu-ji, Braids, 246.
Nakayama, M., Vases, 244.
Nakos, M., Silk, 297.
Namei, G., Metallic goods, 235.
Namik Effendi, Purse, 303.
Namikawa, S., Toys, 247.
Namiwaka, Yasi-u-ki, Vases, 249.
Namur Artistic Literary Club, Annals, 359.
Naoomoff, B., Candlesticks, 319.
Naoum Cassam, Argil, 97.
Naoun, Miltelete, Tissues, 299.
Naples Mineralogical Society, Sulphur, 231.
Napoleao, Narciso & Arthur, Engraving, 366.
Nara, Y., Instruments, 247.
Nara-ken, Local Government of, Cloth, 246.
Naranjo y Garza, Felipe, Ores, 88.
Nardin, James, Chronometer, 358.
Narragansett Mills, Printing cloths, 118.
Nash, H., & Co., Tin plates, 62.
Nash, Mrs., Hats, ornaments, 171.
Nashawannuch Mfg. Co., Suspenders, 124.
Nashua Card Glazed Paper Co., Boxes, 132.
Nashua Manufacturing Co., Cotton goods, 117.
Nasli, Government of, Figs, 312.
Nasmi Effendi, Madame, Gauze, 298.
Nasson Tarrouchan, Tobacco, 309.
Natanson & Hurwitz, Boots, 204.
National Button Co., Buttons, 128.
National Exhibition, Commission-General for the, Gold, etc., 82; Charts, 367.
National Fire Alarm Telegraph Co., 331.
National Glass Works, Glass, 215.
National Manufactory of Fire Arms, 273.
National Museum, Minerals, 81, 86; Iron, 82; Garments, 155; Skeleton, 156.
National Printing Office, Playing cards, 289.
National Rope Yard, Yarn, 286; Ropes, 289.
National School Furniture Co., 321.
National School of Engineering, Reports, 343.
National School of Mines, Reports, 343.
National Silk Spinning & Weaving Manufactory, Silk, 286.
National Society of Agriculture, Herbs, 262.
National Stove Works, Heaters, 375.
National Surgical Institute, Splints, etc, 135.
National Suspender Co., Suspenders, 124.
National Temperance Society, Books, 326.
National Wire Mattress Co., Mattresses, 111.
National Wood Mfg. Co., Floors, etc., 115.
Natté, Miss, Fancy articles, 254.
Natural History, Society of, Minerals, 81; Plants, 266; Scientific newspaper, 267; Gums, 263; Silk, 269.
Naudet & Co., Barometers, 344.
Naumann-Burkhardt, Extract honey, 214.
Naumann, C. G., Job printing, 348.
Naumann, Justus, Biblical pictures, 348.
Naumkeag Steam Cotton Co., Sheetings, 117.
Navajun, Corporation of, Mineral waters, 91.
Naval Artillery, Guncarriages, etc., 319.
Navarro, Antonio, Stone, 90.
Navarro & Co., Soap, 283.
Navarro, Pedro, Hats, 263.
Navarro, S., Book, 368.
Navassa Phosphate Co., Fertilizers, 55.
Navvarez, J. M. C., Cotton, 264.
Nawa, S., Silks, 246.
Nax, Kuhn, & Silberman, Pipes, 128.
Nazar Kezork, Saucers, 292; Goblet, 303.
Nazareff, E., Helmet, 318.
Neal, J., Tableware, 147; Jewelry, 151.
Neal, J., & Co., Cutlery, 153.
Neal, John, Chronometers, 339.
Neall, D. W., Teeth, 136.
Neame & Co., Sugar, 180.
Nebraska, University of, Views, 322.
Neden Bros., Flour, 180.
Nedjep, Government of, Garments, 300.
Nedwied & Son, Red chalk, 76.
Needham, Daniel, Massachusetts, 12.
Needham, J., Daggers, 152; Knives, 153.
Needham, J. & G. H., Guns, 152.
Needham, Sir J., Cocoa, 184.
Neeschourrer, Bellesfrod, & Co., Ores, 89.
Neeser, J. G., Judge, Gr. IX., 16.
Neff, J., Instruments, 333.
Neff, J. R., California, 11.
Neff, P., Implements, 328.
Nefissé, Madame, Shirts, 298; Napkins, 301.
Negishi, Manzo, Furniture, 249.
Negretti & Zambra, Instruments, 339.
Neher, Chas., Hair jewelry, 127.
Neilson, George, Model, 337.
Neilson, Storer, & Sons, Yarns, 148.
Neitsche, R., Designs, 352.
Nekervis, Wm., Parrott gun, 134.
Nell, Federico, Gold, 85.
Nellis, C., Carriage, 383.
Nelson Bros., Wheat, 158.
Nelson Committee, Iron, etc., 63.
Nelson, H. A., & Sons, Brooms, 190.
Nelson, Matter, & Co., Chamber suites, 111.
Nelson, R. M., U. S. Commissioner, 9.
Nely, A., Morocco, 310.
Nemiloff, C., Yarn, 320.
Nemoz, P., Hats, 107.
Nenedés, Gov. of, White marble, 97.
Nepomuceno, M., Books, 369.
Nerssez, M., Sheeting, 293.
Nes, Chas. M., Silicon steel, etc., 57.
Ness, Miss C., Lace, 174.
Ness, P., Stones, 66.
Nessibo, Madame, Silk, 297.
Nestlé, Henry, Farina, 214.
Netherlands Commission, Minerals, etc., 221; Weapons, etc., 222.
Nett Chemical Factory, Potash, 201.
Netto, A. E. B., Woolen fabrics, 286.
Neuchatel Asphalte Co., Asphalt, 76.
Neuchatel Orphan Asylum, Reports, 357.
Neuhusen, J., Billiard table, 202.
Neukumet, P., Fire bricks, 106.
Neuman, H., Wire cloth, 316.
Neumann Bros., Hunting guns, 218.
Neumann, F. L., Piano, 350.
Neumann, R., & Co., Trimmings, 141.
Neustadtl, M. H., Garnet jewelry, 209.
Neuvialle, J. B., Heater, 194.
Neuville, Louis, Kaolin, 95; Ceramics, 284.
Neve, E., Teeth, 136.
Neves, B., Woolens, 286; Saddlebags, 289.
Neves, Casuniro de Castro, Yarns, 285.
Nevins Mill, Jute bagging, 118.
Nevossiltzeff, M., Lace, 318.
Newark Coal Company, Coal, 52.
Newark Tea Tray Co., Trays, 376.
Newbauer, W. G., Medical plaster, 135.
Newberry, J. S., Judge, Gr. VI., 16.
Newberry, R., Artificial teeth, 259.
New Britain Lock Co., Locks, 142.
Newcastle Chemical Works, Soda, 144.
New Dominion Organ Co., Organs, 342.
New England Bunting Co., Bunting, 142.
New England Co., Wool, 119.
New England Glass Co., Glassware, 108.
New File Manufactory, Files, 227.

New Gellivara Co., Ores, 78; Iron, 79; Nails, 228.
Newgeon & Shelton, Carriages, 381.
New Hampshire, State of, Educational, 323.
New Haven Clock Co., Clocks, 330.
New Haven Folding Chair Co., 109, 381.
New Haven Organ Co., Organs, 333.
New Haven Steam Heating Co., Radiators, 376.
New Haven Wheel Co., Wheels, 379.
Newichawanick Co., Blankets, 143.
New Jersey, Educational Dept. of, 326.
New Jersey, State of, Minerals, 51; Ores, 56; Maps, 60; Pipe, 107; Wood, 337.
Newman, E. G., Pianos, 333.
Newman, G. C., Mirrors, 113.
Newmann, Joseph, Silks, 122.
New Marble Works, Marble, 78.
New Match Manufacturing Co., Matches, 225.
New River Railroad, Mining, & Manufacturing Co., Minerals, 48.
New South Wales Com., Copper, 64; Candles, etc., 157; Sugars, 158; Birds, 340.
New South Wales Shale & Oil Co., Oil, 157.
New Telegraph Co., Quartz, 166.
Newton, C. C., Reamers, 138.
Newton & Co., Fire brick, 107.
Newton, I., Judge, Gr. XIX., 18.
Newton, J., Coal, 51.
New York Button Co., Buttons, 127.
New York Catholic Protectory, Shoes, 126; Printing, 132; Photographs, 336.
New York Knife Co., Cutlery, 139.
New York Woven Label Co., Labels, 123.
N. Y. Institution for the Blind, Maps, 321.
N. Y. Lamp Co., Lamps, 114.
N. Y. Silicate Book Slate Co., 321.
N. Y. Slate Roofing Co., Paints, 378.
New Zealand Commissioners, Gold, etc., 63; Garments, 155; Pictures, 156.
New Zealand, Government of, Gold, etc., 63; Fabrics, 155; Census, etc., 156.
New Zealand Provision & Produce Company, Preserved meats, 156.
Nhorinho, J. S. da Silva, Lime, 82.
Niantic Woolen Mills, Suitings, 120.
Nibbinger, E., Paste, 55.
Nicaise, C., Bolts, screws, etc., 218.
Nicaise, P. & N., Bolts, etc., 218.
Nich, Government of, Coal, 97; Wool, 295.
Nichan, S., Skins, 310.
Nicholls, R., Organ, 333.
Nichols, G. W., Judge, Gr. XXVII., 19.
Nichols, H. K., Model, 335.
Nichols, W., Book rack, 111.
Nicholsky, L., Judge, Gr. I., 15.
Nicholson, Hamlet, Cricket balls, 340.
Nickle, Robt., Toys, 127.
Nicoforaki, Theophane. Oil, 291; Yellow ware, 292; Belt, 303; Parchment, 304.
Nicola, Karlen, Photographs, 358.
Nicolaide, Miss Azulfi, Lace, 301.
Nicolai's Publishing House, Books, 348.
Nicolaki, J. O., Cement, 97; Resin, 306.
Nicolaki, V., Organzine, 296.
Nicolas & Chamon, Meters, 344.
Nicolas, F., Boots, 257.
Nicolas, O., Cup holder, 292.
Nicolas, Prévézé, Poutargue, 304.
Nicole, Nielson, & Co., Watches, 339.
Nicolet, College, Educational, 342.
Nicoloreuzi Bros., Wine, 313.
Niera, Gayoso, D., Sulphurous waters, 91.
Nierstras, Z. N. H., Plans, 361.
Nieulant, Count of, Bayonet, 278.
Nieuwenhuizen & Van Stratum, Towels, 220.
Nievergelt, Joh., Kirschwasser, 214.
Ni-i-gata-ken, Local Govt., Cloth, 246.
Nikitin, Gorjaieff, & Co., Wool, 317.
Nikogos, Cuffs, 301.
Nimetoulah, Kurelli, Pyrites, 96.
Nimetoulah, Mouradite, Galena, 96.
Nims, H. B., & Co., Globes, 321.
Nin & Mañé, B. & L., Embroidery, 276.
Nishigori, K., Crapes, 246.
Nishijin Weavers, Silks, 246.
Nishimura, S., Embroidery, 246; Pictures, etc., 249.
Nishimura, S. J., Wood, 249.
Nissen, W., Leather, 318.
Nitch, Government of, Prunes, 312.
Nitedals Match Manufactory, Matches, 229.
Nitschke, W., Cordials, 168.
Nitscke, W., Vase, 166.
Nittinger, Edward, Paste, 139.
Nitzschke, W., Books, 348.
Nixon, G., & Son, 375.
Nixon, G. W. C., Tools, 138.
Noailles, A., Canes, 277.
Noble, F. W., Michigan, 13.
Noble, W. H., Judge, Gr. XVI., 17.
Nobre, J. R. F., Linen yarns, 285.
Nobreza, Francisco A. da S., Lozenges, 289.
Nock, G. W., Lock, 140.
Noel-Winderling Bros., Dentures, 235.
Nogho, U., Apron, 299.
Nogueira, Antonio Marques, Jewelry, 288.
Nogueira, M. A., Cotton canvas, 285.
Nolan, L., Drain pipes, 160.
Nolla & Son, M., Flagstones, 272.
Nolte, E., Tooth powder, 256.
Nonnenbacher, J., & Co., Mouldings, 113.
Nonnenberger, C., Tools, 126.
Nonotuck Silk Co., Silk thread, 123.
Nooijen, L. J., Furniture, 220.
Noordendorp, J., Photographs, 222.
Nord & Son, M. E., Refrigerator, 229.
Nordahl, Petter N., Boots, 229.
Nordenskiold, A. E., Judge, Gr. II., 15; Maps, 363.
Nordlund, K., Apparatus, 362.
Nordström, M. S., Stamps, 226.
Norfolk & New Brunswick Hosiery Co., Underwear, 124.
Normand, James, & Sons, Shoe linings, 149.
Normann, J. G., Moulds, 202.
Nörr, Eugene, Drawings, 75; Valve, 201.
Norris & Co., Silk, 150.
Norrköping Match Mfg. Co., Matches, 225.
Norrman, C. G. V., Model, 363.
Norrmann, J., Toys, 205.
Norrström, C. A. & C. H., Knives, 227.
North British Australian Co., Wool, 180.
North Chicago Rolling Mill Co, Drawings, 334.
North Netherland Musical & Historical Association, Books, 360.
North Pittsford Marble Co., Monuments, 53.
North Yelta Mine, Ores, 166.
Northampton Furnace, Ores, 49; Iron, etc., 57.
Northeastern Pastoral & Agricultural Society, Wheat, 163.
Northfield Knife Co., Cutlery, 139.
Northrup, W. S. & M. S., & Co., Gloves, 126.
Norton Iron Works, Ores, 50; Iron, 59.
Norwalk Lock Co., Hardware, 141.
Norway, Dir. of Public Roads, Maps, 364.
Norway Plains Co., Blankets, 120; Flannels, 121.
Norwegian Asso. of Tourists, Books, etc., 364.
Noske, H., Felts, 119.
Notomi, K., Judge, Gr. II., 15.
Nottingham Lace Works, Laces, etc., 123.
Nougai Baitimour, Millet, 309.
Noury Bey, Sumac, 326.
Noury Eddin Ousta, Scissors, 305.
Nova Petropolis, Colony of, Linen goods, 253.
Nova Scotia Advisory Board, Gypsum, 73.
Nowell, E. C., Books, 182.
Noyes, E. F., Ohio, 13.
Noyes, W. F., Combs, 127.
Nuchterlein, F., Metal, 201.
Nugent, Mr., Arrowroot, 177.
Nuisho-sha, Embroidery, 246.
Numado Masa-u-ki, Picture, 249.
Nunes, Robert, Rum, 172.
Nunez, Angel, Geography, 267.
Nuñez, José Maria, Marbles, 90.

Nunez Ramos, F., Cloth, 274.
Nydalens Co., Sail cloth, 229.
Nye, J., U. S. Commissioner, 9.
Nye, Wm. F., Oils, 103.
Nynäs Pasteboard Factory, Pasteboard, 227.

O.

Oacalco Hacienda, Sugar, 268.
Oahu College, Shells, 250.
Oakden, J. J., Coal, 63.
Oakey, John, & Sons, Emery stone, 61.
Oakville Co., Pins, 127.
Oannès, S., Lady's companion, 303.
Oaskoff, P., Dress goods, 316.
Oaxaca, State Gov. of, Minerals, 86; Indigo, 268; Vegetable fibres, 269.
Obach, T., Designs, 352.
Oberg, C. O., & Co., Files, 227.
Obookhoff Steel Foundry, Ordnance, 319.
Observatory, Neuchatel, Reports, 354.
Ocampo, Miss J., Botanical collection, 269.
Ocampo, V., Shawl, 257.
Ocean Mills, Bleached cottons, 117.
Ochagavia, Silvestre, Claret, 262.
Ochao, J. M. de, Bricks, 272.
Ochva, Gasper Sanchez, Sulphur, 86.
Ocreman, L., & Witdoeck, E., Skins, 218.
O'Daly, Olimpia Vallcareara, Iron ore, 87.
Odberg, C. R., Boots, 226.
Odense Match Factory, Matches, 223.
Odin Distillery, Brandy, 224.
Odling, W., Judge, Gr. III., 15.
Odnoooshefsky, M., & Sons, Muffs, 318.
Odriozola, Corp. of, Stones, 90.
Oechelhauser, Cotton, mixed goods, 203.
Oehme, J. D., & Sons, Toys, 205.
Oehmigke's Publishing House, Books, 348.
Oetiker, M. R., Table cloths, 212.
Offergeld Bros., Paint, 215.
Official Gazette, Publications, 347.
Ogden, I., Drain pipe, 106.
Oghan, Sivas, Pitch, 306.
Ogle Plantation, Sugar, 175.
Ohan, Thread, 294.
Ohanès Agha, Skins, 311.
Ohanna, A., Carpet, 296.
Ohannès, A., Pillow case, 294; Woolen, 295; Hosiery, etc., 300; Wheat, 309.
Ohannès Agha, Skins, 310.
Ohannès, Son of Varcha, Honey, 312.
Ohannes, Syrup, 313.
O'Hara, Charles M., Chairs, 109.
Ohio Agricultural College, Map, 328.
Ohio Coal Co., Coal, 49.
Ohio, Educational Exhibit of, 322.
Ohio Furnace, Ores, 48; Pig iron, 58.
Ohio River Salt Co., Salt, 121.
Ohio, State Archæological Assn., Relics, 329.
Ohio, State of, Minerals, 50.
Ohio Stone Co., Stone, 54.
Ohio Tool Co., Tools, 138.
Ohio Valley Piano Co., Pianos, 333.
Ohlton Coal Co., Coal, 50.
Oil Cloth Factory, Sand, 73.
Ojea Porras, José, Iron, 92.
O'Keefe, A., Wheat, 163.
Okurasho, Scales, 248.
Olago, J., Earthenware, 272.
Olah, Artin, Oats, 303.
Oldach & Mergenthaler, Bookbinding, 132.
Oldendorf, H., Drums, 333.
Oldendorff, E., Judge, Gr. IV., 16.
Olds, N. G., & Sons, 379.
Olea, Segundo of, Cards, 278.
Oleophine Oil Co., Oils, 103.
Oliden, T., Medicinal herbs, 259.
Oliva, S., Soap, 271.
Olive Furnace, Iron ores, 48; Pig iron, 58.
Oliveira, A. C. de, Oligistic iron, 82.
Oliveira, Balthasar, Ropes, 289.
Oliveira, Bento Rodriques d', Ore, 94.
Oliveira & Bro., Soaps, 252.
Oliveira, J. F. de, Caps, 288.
Oliveira, J. G. de, Watches, 369.
Oliveira, Joao Correia, Tin ore, 94.
Oliveira, S. M. de, Bricks, 284.
Oliver & Co., Shirts, 276.
Oliver, F., Canvas, 273.
Oliver, George, Pyrites, 70.
Oliver, H. K., Judge, Gr. XXV., 19.
Oliver, Thomas, Measure, 124.
Oliveros, M., Mats, 280.
Olivier, J. J., & Son, Woolen stuff, 217.
Olivieri, L., Fancy articles, 234.
Olivieri, L., Hardware, 235.
Olland, H., Instruments, 361.
Ollive, A., Pavements, 193.
Olmeda, F., Cloth, 275.
Olmo, José del, Berja, Galena, 87.
Olmos, José V., Minerals, 83; Marble, 84.
Olmsted, S., jr., Strainer, 377.
Olonetz Mining District, Guns, 98; Projectiles, 319.
Olsen, Th., Silver ornaments, 230.
Olsson, M., Stand, 228; Furniture, 362.
O'Malley, E., Safety cage, 162.
Omer Agha, Carpets, 296; Chains, 302; Morocco, 311.
Omer Djerbali, Vermicelli, 312.
Omer Effendi, Galena, 96.
Omer, O., Morocco, 310.
Omer Oglou Kassan, Tobacco, 309.
Omer Oglou Osman, Galena, 96.
Omeraki, I., Gauze, 298.
Oñate, Sons of, Silk, 275.
Onderwater, H. F., Stones, 77.
Oneto, Agostino, & Co., Soap, 231.
Ono, G., Cloths, 245.
Onondaga Pottery Co., Decorated ware, 108.
Ontario Advisory Board, Copper pyrites, 70.
Ontario Lithographic Stone Co., Stone, 73.
Ontario Plaster Co., Gypsum, 73.
Onzy, Types, 237.
Ooshkoff, P., Chrome, 315.
Open Stove Ventilating Co., Stoves, 375.
Ophir Furnace Co., Ores, 50; Iron, 58.
Opitz & Son, C., Paper, 210.
Oporto Commercial Association, Wood, 300.
Oporto Glove Manufacturing Co., Gloves, 287.
Oporto Industrial Institute, Silverware, 284.
Oporto Weaving Co., Yarns, 285.
Oppenheim, F., Buggies, 380.
Oppenheimer Bros., Gold nugget, 70.
Oppenheimer, S., Carriages, 381.
Opsahl, P. J., Iron safes, 229; Locks, 230.
Optical Society, Instruments, 344.
Orange Free State, Various products, 240.
Orange Furnace, Ores, 48.
Orange Iron Co., Iron, 58.
Orange Judd Co., Blocks, 128; Books, 337.
Orasco, Manuel Berra, Geography, 267.
Orbeton, W. W. S., Hinges, 140.
Ord, J. L., California, 11.
Ordnance Dept., Gun carriage, 319.
Ordnance Survey, Maps, 339.
Orduna, C., Capsules, 278.
Oregon, State of, Paints, 105; Woolens, 120.
O'Reilly, T., Wheat, 163.
Orell, Füssli, & Co., Books, 354; Plates, 358.
Orellana, E., Book, 266.
Oria, Eugenio, Oxide of iron, 87; Coal, 89; Bricks, 91.
Oriental Powder Mills, Powder, 106.
Oriol, Son of J., Fans, 277.
Orive, S., Chemicals, 271.
Oropera, Guillermo, Sensible scales, 267.
Orozco, A., Book-keeping, 266.
Orr, Painter, & Co., Boats, 374.
Ortiz, Anastacio C., Tobacco, 268.
Ortner & Houle, Engraving, 152.
Osaka fu, Rugs, 245.
Osborn, Bennett, Paper boxes, 132.
Osborn Mills, Printing cloths, 118.
Osborn, T. H., U. S. Commissioner, 9.
Osborn, Wm. J., Arizona, 11.
Osgood, J. R., & Co., Books, 328.

O'Shausey, P. A., Timbers, 179.
Osman Agha, Carpets, 296; Leather, 310.
Osman Bin Mohamed, Emery, 97; Prunes, 312.
Osman Effendi, Lace, 301; Girth, 305.
Osman, H., Belt, 300.
Osman Hadji, Raisins, 312.
Osmeña, Rita, & Co., Harness, 282.
Osorio, Fernando, Pistols, 278.
Osterberg, C. G., Furniture, 226.
Osterby & Strömbacka, Iron works, 78, 79.
Osternack, Chas., Virgin lime, 82.
Osterritter, J., Leather articles, 210.
Ostersetzer Bros., Screens, 208; Lace, 210.
Osthaus, Luis, Cordage, 261.
Ota, M., Furniture, 245.
Otamendi, Carlos, Shells, 85.
Otis Company, Denims, 117; Hosiery, 125.
Otis Iron & Steel Co., Steel, 56.
Ott, B., & Co., Jewelry, 204.
Ott & Brewer, Porcelain, etc., 107.
Ott, Gebhard, Toys, 205.
Ottaviani Bros., Essences, 232.
Ottawa Iron & Steel Co., Iron ore, 71.
Ottawa Iron & Steel Mfg. Co., Iron, 74.
Ottenheimer, J. M., & Sons, Corsets, 204.
Otter, Baron C. G. von, Lantern, 363.
Otterbourg, Jewelry, 197.
Otto, F. G., & Sons, Instruments, 136.
Otto, J. W., Piano, 332.
Ottoman Commission, Paintings, 371.
Oudjon Christo, Sorghum, 309.
Oule, Government of, Carpets, 296.
Oulfrouch, M., Boots, 301.
Oulmia, H., Wool, 296.
Ounedji, O., Duck, 293.
Ousta Ahmed, Coverlet, 296.
Ousta Bachou, Hose, 299.
Ousta, H., Vases, 292.
Ousta, Jacob, Vase, 293.
Ousta Mehemed, Hemp, 295; Woolens, 296.
Ousta Mehemed Tournous, Harness, 305.
Ousta, T., Pots, 292.
Ousta Yano, Hose, 299.
Oustour, Canes, 303.
Oustour, P., Silk, 297.
Ovakim, Lantern, 293.
Ovalle, D. & E., Wines, 262.
Over Agha, Nuts, 307; Raisins, 312.
Oviedo, Mining District of, Ores, 89.
Oviedo, P., Books, 266.
Ovre, Mrs., Artificial flowers, 223.
Owen Paper Co., Papers, 131.
Oxford Iron Co., Drawings, 335.
Oxford Woolen Mills, Woolen goods, 189.
Oyama, K., Limestone, 244.
Oyarzabal, J., Ice cream apparatus, 273.

P.

Paarl Wine & Brandy Co., Wines, 171.
Pabst, Chas., Sofa bed, 109.
Pabst, Danl., Walnut sideboard, 111.
Pabst, G. J., Toys, 205.
Pacchiani, E., Olive oil, 232.
Pace, E. M., Virginia, 14.
Pacheco, A. V., Counterpanes, 285.
Pacheco, F. J., Linen fabrics, 285; Flannels, 286.
Pacheco, Francisco Gomez, Nails, 286.
Pacheco, J. V., Counterpanes, 285; Wool fabrics, 286.
Pachistizzi, V., Maize, 309.
Pacific Mills, Calicoes, 119; Alpacas, 12
Packard, C. F., & Co., Wagon, 381.
Packer, Asa, Alternate, 9.
Padilla, Francisco N., Calamine, 87; Lead, 270.
Padilla, J., Tincture, 271.
Padronello Woolen Mfg. Co., Fabrics, 286.
Paetel Bros., Books, 348.
Page, Kidder, & Fletcher, Coal tar, 103.
Page, S., Wool, 183.
Pagés & Co., Linen, 273.
Paget, F. A., Judge, Gr. XXII., 18.
Pagliacetti, R., Statues, 232.
Pagliaro, A. M., Gelatines, 235.
Pagliaro, D., Medicines, 235.
Paillard, C., & Co., Musical boxes, 355.
Paine Bros., Wood work, 379.
Paine's Furniture Manuf., Furniture, 112.
Paiva, Manuel J. de, Boats, 287.
Paixao, Antonio Aug. da, jr., Clothing, 287.
Pajares, J., Earthenware, 272.
Palacios, F., Wines, 264.
Palacios, P., Woolen fabrics, 257.
Palassé, Madame, Gown, 299.
Pale, T. Ch., Cloths, 316.
Palenoff, C., Photometer, 373.
Palizzolo Gravina, Baron V., Books, 365.
Pallares, Count of, Sabots, 276.
Pallu, Eug., Fibres, 195.
Palmcrantz, Mitrailleuse, 227.
Palme, Elias, Glass lustre, 207.
Palmer, B. F., Artificial limbs, 136.
Palmer & Kendall, Nets, 126.
Palmer Mills, Dress goods, 117.
Palmer, Samuel, Index, 338.
Palmer, Theo. J., Reclining chair, 110.
Palmer, W. F., Tools, 138.
Palmer & Williams, Corsets, 125.
Palme's Son, F. E., Glassware, 207.
Palomar & Co., Paper, 266.
Palonka, Government of, Iron nippers, 305.
Palz, E., Tageblatt, 348.
Pampanga, Prov. Board of, Tapestry, 281.
Pampin, C., Cloth, 258.
Panada, J. L., Woven goods, 284.
Panaloko, Government of, Coal, 97.
Panayote, Petron, Oil of flowers, 291.
Pando, Acha y Garcia, Frame, 279.
Pandoy, J. Maria, Wines, 264.
Paniagua, C., Lessons, 266.
Panier, E., Instruments, 198, 344.
Pano Mamatti, Salt, 291; Gall nuts, 306; Cotton, 313.
Panor Mamatti, Wool, 314.
Panoucha, Y., Belt, 305; Leather, 310.
Pansein, Y., Silk shirting, 297.
Pantrepant Estate, Lace bark, 172.
Paoli Belt Co., Belt, 331.
Papa Giorki, Carpet, 296.
Paparanhos, B. J., Bricks, 284.
Papaz, Avediz, Copper, 292.
Papaz Oglou, Wine, 313.
Papaz, Oglou Bros., Oil, 292.
Papazaki, M., Counterpane, 294.
Papazoupola, Annetta, Cloth, 301.
Pape Bros. & Kügemann, Moulcings, 113.
Paper & Chemical Manufactory, Plaster, dressing materials, 205.
Papini, L., Truss, 235.
Pappazaki, Dimitri, Argillous talc, 97.
Pappazaki, Nicola, Lignite, 96.
Para, Province of, Oils, 252.
Parabet, Basket, 292.
Paradeiser, W., Models, 352.
Paraiso Factory, Whisky, 268.
Paraná, Benevolent Society of, Spun cotton, 256; Crochet work, 258.
Parana, Commission of, Stones, 84; Tiles, 256; Berros waters, 259.
Parana, Province of, Ores, 81; Gold veins, 82.
Paraná, Province of, Soaps, 252; Yarns, 253.
Parapara Iron & Coal Co., Ore, 63.
Pardo Montero, R., Sulphurous water, 91.
Parellada, Flacquer, & Co., Velvet, 273.
Parfonry & Lemaire, Chimney pieces, 194.
Paris, City of, Models, 344; Reports, 345, 346.
Paris Hill Mfg. Co., Carriages, 381.
Paris, Isaac Joseph, Iron beams, 77.
Paris, Society of Comparative Legislation, Books, 346.
Parise, A., Sons, Lock, 235.
Park, Bro., & Co., Steel, 55.
Parker, C., Coffee mills, 376.
Parker, Chas., Shot guns, etc., 134.
Parker, J., Son, & Co., Paper, 131.
Parker & Whipple Co., Attachment, 141.

Parkhurst & Gridley, Strap, 129; Stationers' goods, 130.
Parkhurst, V. P., Stand, 114.
Parkinson Bros., Yeast, 144; Vinegar, 154.
Parkinson, J. B., Wisconsin, 14.
Parkinson, W. S., Kansas, 12.
Parks, M., Virginia, 14.
Parks, W., & Son, Cotton yarns, 189.
Parma, J., Piqués, 208.
Parmentier, Gosset, & Co., Mantels, 216.
Parmentier, Van Hoegarden, & Co., Cotton fabrics, 216.
Parnell, M., Wine, 159.
Paroni, Andrés, Cement, 84.
Paroz, J., History, 353.
Parquetry Factory, Plans, 356.
Parr, B. le, Wool, 180.
Parramore, T., Wool, 183.
Parras, A. E. de, Embroidery, 258.
Parrot, T. S., Instrument, 340.
Parsons, J. H., & Co., Shirts, 125.
Parsons, John, Inks, etc., 104.
Parsons Paper Co., Writing paper, 131.
Parsons, W. H., U. S. Commissioner, 9.
Partridge & Co., Brackets, 148.
Parvis, Mr., Furniture, 236.
Pas, Gerard, Bronzes, etc., 216.
Pascal Iron Works, Iron work, 58.
Pascual & Co., Cloth, 274; Velvets, 276.
Pascual & Co., A., Silk fabrics, 275.
Pascual, S., Cloth, 274.
Pascual y Granés, P., Window, 272.
Pashkoff, B., Wire cloth, 316.
Pashroff, Basil, Bogoiavlensk & Vennihotoorji Copper Works, Copper, 98.
Passaic Rolling Mill Co., Iron, etc., 57.
Passaic Zinc Co., Ingots, 47, 59.
Passolo, E. Germack, Boots, 366.
Passos, Augusto Fructuoso, Combs, 288.
Pastor, Moltó, & Co., Cloth, 274.
Pastore, Gio, late Filippo, Liquorice, 231.
Paszepny, C., Albums, 373.
Patagones, Justice of the Peace of, Salt, 255.
Pateguazza Bros., N. & A., Perfumery, 232.
Patek, Phillipe, & Co., Chronometers, 355.
Patent Keg Co., Paint cans, 376.
Patent Nut & Bolt Co., Nuts, etc., 153.
Patent Pumbago Crucible Co., Crucibles, 146.
Patent Selenitic Cement Co., Cement, 61.
Paterno, E., Judge, Gr. III., 15.
Paterno, F., Drawings, 211.
Patience, J., Wheat, 163.
Paton Manufacturing Co., Cloths, 189.
Paton, Robt., & Son, Furniture, 110.
Patricio, Francisco Antonio, Silk cocoons, 286.
Patrick & Carter, Bells, 331.
Patriotismo Factory, Cloths, 265.
Patron Bros., Mineral waters, 85.
Patten, F. H., Quartz, 55.
Patterson Bros., Tablets, 162.
Patterson, J. E., & Co., Doors, 378.
Patterson, J. M., Wheat, 163.
Patterson, J. S., Vermont, 14.
Patton, J. D., Drawings, 335.
Patton, R. M., Finance, 11.
Patury, J. J. S., Clay pots, 252.
Paugger, F., Instruments, 351.
Paul, D., Implements, 328.
Paul, J., & Co., Stone, 53.
Paul, J. M., U. S. Commissioner, 9.
Paul, William, Works on horticulture, 339.
Paula, Antonio José. Cork hats, 287.
Paulding, Kemble, & Co., Model of gun carriage, 134; Drawings, 335.
Pauli, F., Essences, 225.
Paulo Alfonso, District of, Hats, 253.
Paulsen, J., Wines, 262.
Paulus, A., Musical instruments, 349.
Paulus, E., Watches, 330; Musical instrument, 349.
Paulus & Schuster, Musical instruments, 349.
Pauly, Boothon, & Co., Vinegar, 240.
Paupier, L., Scales, 344.
Pausacker, Evans, & Co., Portmanteaus, 161.
Pauw, F. de, Trimmings, 197.
Pawtucket Hair Cloth Co., Cloths, 122.
Paxon, Comfort, & Co., Zinc monuments, 139; Robes, 143.
Paxton, W. G., Mississippi, 13.
Payá & Gisbert, Paper, 277.
Payne, G., Arrowroot, 158.
Payno, M., Geography, 266.
Paz, E., Gymnastic apparatus, 346.
Peabody Mills, Cotton goods, 117.
Peace Dale Mfg. Co., Cassimeres, 121.
Peacock, H. H., Cases, 129.
Peacock, W., Cricket bats, 191.
Peak Downs Copper Mfg. Co., Copper, 167.
Peake, Thomas, Bricks, 145.
Pears, A. & F., Soap, 144.
Pearse Bros., Hides, 163.
Pearse, J., Penmanship, 341.
Pearse, J. B., Drawings, 334.
Pearson, Thomas, & Son, Quilts, 149.
Pearsons, G. W., Model, 334.
Pease, C. A., Washstand, 377.
Pease, F. S., Oils, 103.
Pechar, J., Designs, 352.
Pechar, J., & A. Peez, Statistics, 351.
Peck & Greene, Underwear, 125.
Peck, Henry, Show cases, 111.
Peck, Kennedy, & Co., Tile, 107; Radiator, 115.
Peck & Snyder, Skates, 139.
Peck, W., Montana, 13.
Peckham Mfg. Co., Jeans, 116; Doeskins, 121.
Pecora Paint Co., Paints, 104.
Pedagogic Museum, Educational, 372.
Peden, M. J., Maize, 158.
Pedro, Carmen de, Jet, 91.
Pedro II. Dock Works Co., Plans, 367.
Pedros, Diarbekir, Oils, 291.
Pedros, Mihalgazi, Raisins, 312.
Pedros Salgadas Mineral Water Co., 95.
Pedroso Mines & Manf'y, Ores, 89; Iron, 92.
Pedroza, D. J. L., Salt, 283.
Pedruncini, Juan, Shell lime, 84; Bricks, 256.
Peel, T. W., Clay, 73.
Peet, S. D., Ornaments, 328.
Pefkiades, J., Wine, 313.
Peguero, Andrés, Coal, 89; Jet, 91.
Peine, Edward, Cuff buttons, 205.
Peirce, C. W. & J., Skirts, etc., 120.
Peirce, I., Desks, 321.
Peirce's Union Business College, 326.
Peixoto, Rodrigo José, Brass nails, 289.
Pelaez, R., Balsam, 278.
Pellas, G., Ornaments, 233.
Pellet, A. P., Silk, 195.
Pelletier, M. A., Glass, 193; Windows, 194.
Peloubet, Peiton, & Co., Organs, 333.
Peltier, E., Labels, 194.
Peltzer & Son, Thread, 217.
Pembedge, Oglou Moustapha, Prunes, 312.
Pemno Petcha, T., Cocoons, 314.
Peña, P., Hair, 277.
Penal Dept., Uniform, 341.
Penal Plantations, Supt. of, Sugar, 180.
Peñalva, B., Horse belt, 259.
Penasson, A., Printing, 237.
Penco, J., Cocoa, 184.
Penfield, E. C., & Co., Trusses, 135.
Penington, E., Alternate, 9.
Peninsula Stone Co., Building stone, 52.
Peniston, J. T., Arrowroot, 174.
Penitentiary of Lima, Shoes, 263.
Penn Gas Coal Co., Coal, 51.
Penn Roofing Co., Felts, 378.
Penna, A. G. d'A., Tinctures, 252.
Penna, Ferreira, Plans, 367.
Pennini, Baron of Floristallo, Sulphur, 81.
Pennise, Baron di F., Essences, 232.
Pennsylvania, Educational Dept. of, 326.
Pennsylvania Furnace, Ores, 49; Iron, 59.
Pennsylvania Geological Survey, Ores, 48.
Pennsylvania Globe Gaslight Co., Lanterns, 114.

Pennsylvania Lead Co., Lead, 59.
Pennsylvania Marble Co., Tiles, 53.
Pennsylvania Salt Mfg. Co., Salts, 102.
Pennsylvania Working Home for Blind Men, Work, 374; Harness, 382.
Penrose & Richards, Fuel, 61.
Pensado, Mrs., & Sisters, Flowers, 266.
Pensel, H., & Co., Slates, 205.
Penssimo, Laces, 301.
Penton, Thos., Engine, 188.
Pen-yr-orsedd Slate Quarry Co., Slates, 61.
Penzer, J., Timber, 158.
Peon, José Contreras, Romances, 267.
Pepper, Geo., Plasterers' models, 162.
Pepper, W., Medical Director, 10.
Pepperill Mfg. Co., Sheetings, etc., 117.
Pequinot, C. & A., Watches, 330.
Pérachipolani, K., Cover, 301.
Perafita Gavigola, F., Carbonic water, 91.
Peralta, Mrs. A., Music, 266.
Pérard, V., Machines, 199.
Percussion Cap Factory, Caps, 210.
Percy, John, Horse shoes, 191.
Perdigao, D. F. Z., Pharmaceutics, 252.
Perdigao, Miguel Salvado, Woolen cloth, 286.
Perdiguero, G., Mantas, 275.
Pereda, Blas, Cotton, 269.
Pereira, Antonio de la Velha, Silk, 286.
Pereira Bros., Straw hat, 287.
Pereira, C. C., Instruments, 369.
Pereira, Luiz Maria, Boots, 287.
Pereira, V. A., Hydrometer, 369.
Pereire, Isaac, Coal, 89.
Perelli, Prof. Luigi, Album, 365.
Pereno Papa, Brandy, 313.
Perepelkin, J., Silk, 317; Umbrellas, 318.
Peres, J. M. de Mattos, Soaps, 283; Linen fabric, 285; Woolen fabrics, 286.
Peretti, Santiago, Dressed stone, etc., 84.
Perez, A. G., Tonic, 255.
Perez, Bernardo, Ore, 89.
Perez, E. Juan, Almanacs, 267.
Perez, Francisco, Calamine, 89.
Perez, Hernandez, Dictionary, 267.
Perez, Juan José, Whisky, 262.
Perez, Luisa, Mineral water, 85.
Perez, M., Printing, 263; Cloak, 277.
Perez, Norverto, R. P. Fr., Rock argil, 93.
Perez, Romero, Varnish, 271.
Perez & Son, Cloth, 274.
Perez, Sons of J., Cloth, 274.
Perez Villamil, J., Soaps, 271.
Periana, Corporation of, Mineral waters, 91.
Perichon, F., Embroidery, 258.
Perier, F., Judge, Gr. XXI., 18.
Perkins, A. M., & Son, Oven, 148.
Perkins, E., Refrigerator, 376.
Perkins & McFarland, Heaters, 375.
Perks, Samuel, Extract, 145.
Perl, J., Teeth, 210.
Perm Gun Foundry, Crucibles, 315.
Permanent Commission of Mutual Relief Association, Reports, 360.
Pernambuco, Prov. of, Iron, 82; Matches, 252.
Pernod, Ed., Absinthe, 214.
Pero & Baxeda, Textiles, 273.
Perrault, L., & Co., Account books, 189.
Perreaux, Velocipede, 200.
Perreaux, L. G., Model, 195; Instruments, 344.
Perrenoud, A., Chronometer escapement, 355.
Perret, E. F., Judge, Gr. XXV., 19.
Perret's, D., Sons, Watches, 355.
Perrin Brothers, Gloves, 197.
Perrin, W., jr., Malt, 164.
Perrot, A., Melodeon, 333.
Perrot, Henry, Bronzes, 193, 199.
Perry, Davis, & Co., Gratings, 162.
Perry, G. A., Atlas, etc., 369.
Perry, Hunter, & Co., Safety fuse, 160.
Perry, J. R., Organs, 333; House, 378.
Perry, M., Pyrites, 67.
Perry, Miss C., Embroidery, 265.
Perry, Mrs., Necklaces, 169.
Perry, V., Bandages, 135.
Perseverança Co., Ore, 94; Tin ingot, 95.
Person, A., Wire cloths, 253.
Perthes, J., Atlases, 348.
Peru, Government of, Guano, 264.
Peru Steel & Iron Co., Ore, 50; Blooms, 56.
Peruvian Industry Society, Grains, 264.
Pesquera, A. M., Paper, 278.
Peters, C. F., Music, 348.
Peters, Henry S., Building sandstone, 72.
Peters, J. L., Music, 326.
Peters, R., jr., Alternate, 9.
Peters & Sons, Carriages, 383.
Peters, T., & Sons, Carriages, 154.
Peterson, A. J., Machine, 364.
Peterson, C. E., Table, 225; Portrait, 226.
Peterson, J. A., Cape, 250.
Peterson, T. B., & Bros., Books, 327.
Petit, Pierre, & Bryson, Jewelry, 213.
Petro, B., Almonds, 307; Rice, 309.
Petro, Volonia, Gall nuts, 306.
Petroff & Medvedeff, Shawls, 317; Furs, 318.
Petroff, N., Judge, Gr. XX., 18.
Petroli, P., Shoes, 234.
Petropolitan Co., Cotton goods, 253.
Petry, A., Arithmometer, 359.
Petry, Geissel, Bayha, & Co., Landaus, 380.
Pettersen, Andr., Perfumery, 229.
Pettersen, C. J., Machine, 363.
Pettersen, Gunerius, Valises, 229.
Pettersen, Karl, Granite, 80; Map, etc., 364.
Pettigrew, William, Axe handles, 179.
Pettingill & Sawyer, Oil cloths, 126, 143.
Pettit, Henry, Chief of Bureau of Installation, 10; Buildings, bridges, 334.
Pettit, Henry, & Wilson, Jos. M., Exhibition buildings, 334.
Peyton & Peyton, Bedsteads, 147.
Pfaff, F., Instruments, 349.
Pfaff, J., Clarionets, 332.
Pfeiffer, Carl, Design, 336.
Pfizer, Chas., & Co., Chemicals, 102.
Pfretzschner, G. A., Instruments, 349.
Pharmaceutical Society, Pharmacopœia, 267.
Phelps, Doremus, & Corbett, Furniture, 109.
Philadelphia Architectural Iron Co., 143.
Philadelphia Axle Co., Axles, etc., 378.
Philadelphia Galvanizing Co., Railing, 143.
Philadelphia Iron & Steel Co., Iron, 57.
Philadelphia Quartz Co., Silicate of soda, 102.
Philadelphia & Reading Coal & Iron Co., Iron ores, 49; Stone, 53; Rails, 57; Bridge models, 334; Cereals, 337.
Philadelphia Truss Co., Trusses, 136.
Philadelphia Worsted Spinners' Asso., 119.
Philippe, C., Cloth, 195.
Philippe, Emile, Jewelry, 197.
Philips, J. jr., Worsted goods, 120.
Philips, W. J., Instruments, 331.
Phillips, C. C., & Co., Varnishes, 104.
Phillips, E. F., Tubing, 331.
Phillips, H. M., Massachusetts, 12.
Phillips & Jacobs, Chemicals, 102.
Phillips, Nimick, & Co., Iron, 55.
Phillips, S. F., U. S. Commissioner, 9.
Phillips, S. R., Harness, 382.
Philosofoff, Basil, & Co., Chemicals, 315.
Phinney, S. B., Massachusetts, 12.
Phipson, Miss E., Sideboard, 147.
Phœnix Foundry Co., Photograph, 162.
Phœnix Furniture Co., Bedroom suites, 111.
Phœnix Iron Co., Drawings, 334.
Phœnix Match Mfg. Co., Matches, 225.
Phœnix Mfg. Co., Crucibles, 54.
Phosphor Bronze Co., Tools, 62, 153.
Photographic Association, Berlin, Books, 347.
Photo-Lithographic Inst., Weimar, Maps, 348.
Pi & Solanes, Laces, 277.
Piacente, F., Olive oil, 232.
Pichler, H., Table cloths, 203.
Pichot, E., Labels, 200.
Pickering, T. R., Connecticut, 11; Velocipede, 381.
Pickett, R. O., Alabama, 11.

Pickman & Co., China, 272.
Piedrola, J. de D., Silk, 275, 279.
Piel, A., Jewelry, 197.
Pierce, G. G., Cheese, 163.
Pierce, I. Newton, Enamel colors, 105.
Pierpont, F. H., Judge, Gr. XII., 17.
Pierson & Herman, Tools, 126.
Pignatelli, José da Cunha, Blanket, 286.
Pigou, Wilks, & Lawrence, Powders, 145.
Pik, J., Instruments, 319; Ores, etc., 372.
Pike, Wm. J., Clays, 61.
Pilat, A., Gloves, 208.
Pile, W. H., & Sons, Hydrometers, 108.
Pilling, G. P., Jewelry, 127; Instruments, 135.
Pillow, Hersey, & Co., Nails, 190.
Piloña, Corporation of, Marbles, 90.
Pim Bros. & Co., Poplins, 150.
Pimental, Francisco, Sketch, 267.
Pimentao, A. A., Pottery, 284.
Pimentel & Queiroz, Silks, 287.
Pine Grove Furnace, Ores, 48; Iron, 58.
Pineda, Corporation of, Iron, 87.
Pineiro, A., Soap, 255.
Pinell, Corporation of, Refractory earth, 91.
Pinet, F., Boots, 197.
Pingree, L. F., Limbs, 136.
Pinheiro, A., Apparatus, 366.
Pinho, Guithermina d'Oliveira, Flowers, 288.
Pini & Co., Glass cruet stand, 256.
Pinó, Manuel, Gloves, 263.
Pinon & Guérin, Cloth, 195.
Pinson, Ivory, 198.
Pintado y Morales, L., Hat, 276.
Piqua Woolen Mills, Felts, 121; Jackets, 124.
Piquée, F., & Bros., Velvets, 135.
Piqueras, C., & Co., Books, 259.
Piquet, Alonzo Emilio, Ores, 88; Plan, 92.
Pires, J. de J., Patent medicines, 283.
Pires, J. L., Salt, 283.
Pirie, A., & Sons, Papers, 152.
Pirik Oglou, Tissues, 293.
Pirrone, Antonino, Liquorice, 231.
Pisco, Province of, Raisins, 263.
Piserecken, Government of, Wax, 312.
Piseren, Govt. of, Cloth, 297; Caps, 299; Belt, etc., 300; Pitcher, 305; Morocco, 311.
Piteira, Filipe, Blankets, 286.
Pitet, senior & junior, Brushes, 200.
Pitkin, P. P., Vermont, 14.
Piton, C., Trophies, 143.
Pittanti, Adriano, & Co., Washstand, 253.
Pitton & Co., Sandstone, 72.
Pitz, G., Gelatine, 227.
Placht Bros., Instruments, 351.
Plajeman & Co., Beer, 262.
Plambeck, N., Model, 206.
Planas, Sons of M., Fabrics, 274.
Planche, Edouard, Son, Writing ink, 215.
Planche, Melchior, Writing ink, 215.
Planella Roure, A., Colors, 271.
Plank, E., Toys, 205.
Planteijdt, L., Canvas, 220.
Planten, H., & Son, Gelatine capsules, 134.
Plate Glass Mfg. Joint Stock Co., Glass, 216.
Plateau, E., Inks, 193; Stationery, 198.
Platt Bros. & Co., Buttons, 129.
Plaza, Nicanor, Gypsum bust, 261.
Plaza, S. de la, Pins, 277.
Pleuer & Co., Jewelry, 204.
Plimpton, J. L., Parlor skates, 139.
Plon & Co., Books, 344.
Ploss, S., & Co., Instruments, 351.
Plumber, B., Copper pyrites, 70.
Plumber, McIntyre, & Russ, Silver ores, 70.
Plunket, G. T., Massachusetts, 12.
Poblet, A., Cloth, 274.
Poblete, T., Medicinal seeds, 259.
Poel, A., Oils, 315.
Pohl, C., Wines, 164.
Pohlmann, Moritz, Piano strings, 350.
Poiret & Son, Soap, 192.
Poirrier, A., Chemicals, 193.
Poirrier, Mortier, & Muller, Fabrics, 195.
Poissonniez, J. B., Jewelers' cases, 218.
Poiteling, P., Varnish, 315.
Pokorny, K., Gloves, 208.
Poland Mining Districts, Ore, etc., 98.
Polhemus, J. H., Refrigerator, 376.
Poliakoff, N. & A., Bros., Wool, 317.
Policard, R., Stands, 200.
Polidori, Count A., Green weed, 233.
Politzer, A., Anatomical preparations, 210, 351.
Pollak, Jacques, Essences, 207; Ether, 210.
Pollock, S., Apparatus, 154.
Pollock & Son, Brushes, 142.
Polo, Leoncio, Iron ore, 88.
Polo, Miss L., Shirt, 265.
Polooshin, N., Calico, 316.
Polson, A., Wheat, 163.
Polychroite Vencer Co., Wood fibre, 104.
Polytechnic School, Delft, Models, 361.
Pomeroy Coal Company, Coal, 52.
Pommerais, L., Imitation marbles, 253.
Ponce, D., Table cloth, 256.
Ponce, Juan, Minerals, 86.
Poncet, senior & junior, Silks, 196.
Ponemah Mills, Cotton goods, 116.
Ponferrada, Bathing Est. of, Waters, 91.
Pons, Bartolome, Cream of tartar, 270.
Ponsard & Cigli, Iron, 81.
Ponta Delgada, Administrative Board, Plan, 369.
Ponta Delgada, Board of Works, Stone, 95.
Ponta Delgada, Committee of, Mineral waters, 95; Straw hats, 288; Lock, 289.
Ponte, José Caetanoda, Woolen fabrics, 286.
Ponti, Carlo, Optical instruments, 365.
Ponti, Rovera, & Co., Buttons, 234.
Pontif. Oleographic Society, Frames, 233.
Pontoosuc Woolen Mfg. Co., Blankets, 121.
Pontzen, E., Judge, Gr. XVIII., 18.
Ponzoni, L., Medicines, 235.
Poole, H. S., Ores and rocks, 71.
Poole, James, & Co., Chronometers, 339.
Poore, L. D. F., Judge, Gr. XXII., 18.
Pootiloff Iron Works Co., Ores, 98; Projectiles, 319.
Pope, Cole, & Co., Copper, 59.
Pope Manufacturing Co., Pistols, 127.
Poplar Creek Mineral R. R. Co., Ores, 49.
Popovits, L., Models, 352.
Popp, J., Hats, 317.
Porcinai, A., Sculpture, 235.
Pork Packing Co., Lard, 224.
Poron Bros, Millinery, 197.
Port, A., Gloves, 209.
Port, Dr., Dressing for fractures, 205.
Port Henry Iron Ore Co., Ore, 47.
Porta, Felix, Stones, 83.
Portalegre, Army Arsenal of, Secretary, 252.
Portalegre, Government of, Lime, 95.
Portalegre National Wool Manufacturing Co., Cloths, 286.
Porte Delgada, Government of, Building materials, 94.
Porter & Bainbridge, Cardboard, etc., 132.
Porter Brothers & Co., Buttons, 129.
Porter, C. T., Judge, Gr. XX., 18.
Porter & Coates, Books, 326.
Porter, R. K., California, 11.
Portilla de la Sierra, Corp. of, Marbles, 90.
Portland Brown Stone Quarries, Stoops, 53.
Portocalaki, M. A., Wheat, 309.
Pórtugol, F. P. de A., Gold dust, rocks, 82.
Portuguese Civil Eng. Society, Books, 369.
Portuguese Copper Mining Co., Ore, 94.
Portuguese Mining Co., Tin ore, 94.
Possilin, A., Cotton stuffs, woolen shawls, 316.
Postawka, L., & Co., Piano taboret, 110.
Postle, Sydney, Ice machine, 340.
Postles, J. P., Judge, Gr. XII., 17.
Poto Yani, K., Woolen, 296.
Pottecher, B., Covers, 199.
Potter, Ainsworth, & Co., Books, 327.
Potter, J. E., & Co., Books, 327.
Potter, T., Sons, & Co., Oil cloths, 119.
Potter, W. K., Shell goods, 127.
Pottier, Enamels, 194.

Pottier & Stymus Mfg. Co., Bedstead, etc., 111.
Pottin Register Mfg. Co., Parlor billiard table, 109; Registers, 330.
Potts, Robert, Educational books, 338.
Pouchan, A., & Co., Cigars, 264.
Pound, T. C., Wisconsin, 14.
Pourdier, M., Fountain, 190.
Poussielgue, R. P., Decorations, 193; Bronzes, 199.
Povan, Parrtaleon, History, 267.
Powel, R., Hare, & Co., Ores, 50.
Powell & Bishop, Dinner services, 147.
Powell, E., Wines, 159.
Power, J. L., Mississippi, 13.
Power, T. C., Montana, 13.
Powers, D., & Sons, Oil cloths, 119.
Powers & Weightman, Chemicals, 101.
Powhattan Mills, Muslins, 116.
Powre, Gillot, O'Kelly, & Co., Pens, 198.
Powrie, E., Leaf tobacco, 170.
Poydebard, St., Silk, 196.
Pozoblanco, Corporation of, Flannels, 275.
Pozoritta, Chief Mountain & Mining Administration, Pyrolusite, 76.
Pozuclo & Canto, F., Apparatus, 278.
Practical Technological Inst., Collection, 372.
Prado, M., Towel, 280.
Prado Paper Manufacturing Co., Paper, 289.
Pradoluengo Prov. Com., Flannels, 274.
Praechter Bros. & Co., Corkware, 206.
Prahran, Town Council of, Photographs, 162.
Prakke, J. E. & H., Belting, 361.
Prat, A., Dyed wool, 255.
Prats, Widow & Sons of José, Cards, 278.
Pratt, C., Clay, 73; Pottery, 188.
Pratt, Chas., & Co., Petrolcum, 103.
Pratt, D. G., Ivory goods, 127.
Pratt, J. T., & Co., Tools, 137.
Pratt, Mrs., Brushes, 250.
Pratt, Read, & Co., Combs, 332.
Pravotoroff, G., Umbrellas, 318.
Pray Bros., Buggy, 381.
Prentice, J., Instruments, 329.
Preparatory School, Wax, 268; Botany, 269.
Presbyterian Board of Publication, Books, 326.
Prescott, G. S., Utah, 14.
President of the Women's Catholic Association, Church ornaments, 277.
Prestoe, H., Woods, 184.
Preston, J. E., Texas, 14.
Preston & Merrill, Yeast, 102; Boxes, 143.
Pretta, Pedro, Extract of coffee, 262.
Pretty, Grime, & Co., Prints, 119.
Prévézé, Government of, Dishes, 293; Carpet, 296; Cedras, 307.
Price & Browne, Wool, 168.
Price & Co., Books, 338.
Price, J. & C., & Bros., Bottles, 146.
Price, Jennings, Kentucky, 12.
Price's Patent Candle Co., Candles, 144.
Priest, W., Wool, 171.
Prieto, F., Fabric, 281.
Prieto, Guillermo, Publications, 267.
Prime, F., jr., Judge, Gr. I., 15.
Prince, Franklin, & Bullock, E. L., Model, 60.
Prince's Metallic Paint Co., Paints, 105.
Prindle, F. C., Drawings, 335.
Prindle, G. H., Muffs, 124.
Prins, M., Carpets, 220.
Prison, Director of, Rugs, 220.
Private Blind Asylum, Statutes, 354.
Probst, Gottfr., Toys, 205.
Prochoska, F., Pomades, 207.
Proctor, Wm., jr., & Co., Pepsin, 101.
Proprietors Queensland Journals, Papers, 179.
Prosser, W. F., Alternate, 9.
Prostes, H., Journals, 369.
Protestant Missionaries, Publications, 242.
Prouvost, Amédée, & Co., Wools, 195.
Providence College, Work, 342.
Providence Forge Co., Iron wheels, 77.
Providence Franklin Society, Minerals, 47.
Providence Gas Burner Co., Stoves, 114.
Providence Tool Co., Rifles, etc., 134.
Provincial Commission, Stalactites, 87; Calcined bone, 270; Basket, 277; Paper, 278.
Provincial Convent, Cloth, 276.
Pruckner, D., Toys, 205.
Prugue, E., Soap, 263.
Prunier, Pierre, Chemicals, 104.
Przibram & Co., Adrianople red, 207.
Public Comfort, Dep't of, Stationery, 336.
Public Education, Dep't of, Books, 344.
Public Institute for the Deaf, Dumb, and Blind, Pupils' work, 362.
Public Instruction Board, Books, 366.
Public Instruction, Ministry of, Maps, etc., 237.
Public Welfare, Society for Promoting the, Reports, 357.
Public Works, Dept. of, Sketch, 267; Yarns, 286; Shoes, 288; Hardware, 289; Plans, 345, 357.
Public Works Office, Drawings, 367.
Publishers', Printers', & Stationers' Club, 344.
Publishing and Printing House of the Orphan Asylum, Books, 347.
Pucci, Sansedoni Alcss., Olive oil, 231.
Puebla, City of, Silks, 265.
Puebla, State Government of, Woods, 267; Sugar, skins, 268.
Puerta, Gabriel de la, Emetic tartar, 270.
Puertas, L., Medicine, 255.
Pugh, J. T., Auger bits, 137.
Puig, Felipe, Salt, 91.
Puig, J., & Co., Fabrics, 273.
Puira, Dept. of, Towels, 263; Cigars, 264.
Pujol, L., Hair flowers, 258.
Pujol, Nicanor, Iron ore, 83.
Pullman's Palace Car Co., Model, 327; Car, 382.
Pullna, Mineral Water Dir., Water, 76.
Pulvermacher Galvanic Co., Batteries, 331.
Pulvermacher, I. L., Instruments, 153.
Purdey, J., Guns, 152.
Purvis, G. E., Tennessee, 14.
Puschner, F. A., Buttons, 210.
Pusey, Jones, & Co., Iron work, 59.
Pusey, P., Minnesota, 13.
Putnam, G. P., & Sons, Books, 326.
Putnam Mfg. Co., Cottons, 116.
Pyachou, J. H., Wyoming, 14.

Q.

Quaker City Organ Co., Organs, 333.
Quarré, V., & Co., Shades, 114.
Quebec Advisory Board, Lime, 72.
Quebradella Company, Minerals, 86.
Queen, J. W., & Co., Microscopes, 329.
Queensland, Commissioners for, Views, 179.
Queensland, Govt. of, Ores, 67; Saddlery, 179.
Queensland Smelting & Assaying Co., Tin, 67.
Queirel, J., Depurative solution, 255.
Queiroz, G. J. de, Statistics, 369.
Queiroz, José de Sequeira Pinto, Raw silk, 286.
Quesada & Garcia, Soap, 271.
Quesnal, Sheriff, Lime, 72.
Quiamson, L., Fabric, 281.
Quick, H. C., Wines, 168.
Quigley, Albert, Wool, 337.
Quigley, P., Construction of Mach. Hall, 115.
Quigley, W. E., Horseshoes, 141.
Quijano, A., Cotton goods, 265.
Quinn, H. S., Mats, 163.
Quinn, P. T., New Jersey, 13.
Quint, S. H., & Son, Stencils, 137.
Quintana, Juan de, Sand, 277.

R.

Raccoon Furnace, Ores, 49.
Raccoon Mining and Manfg. Co., Iron, 59.
Radieri Bros., Flannel, 233.
Radiguet, Toys, 198; Mirrors, 345.
Raff, G., Rum, 180.

Raffin, Mrs. C. M., & Son, Muslins, 197.
Raffl & Co., Statues, 193.
Raoul, H., Skins, 311.
Raïtopoulos, N., Liquors, 313.
Ragosloosky Crown Copper Works, 99.
Rahari, Boots, 301.
Rahiné, Madame, Carpet, 296.
Rahimia, David, Cumin, 309.
Railroads of Jura-Vernoise, Photographs, 356.
Raimondi, Antonio, Map, 263.
Rainer & Son, Piano, 342.
Rakinié, Madame, Carpet, 296.
Ralero, E., Shoes, 276.
Ralston, J., Wool, 183.
Ramalho, José da Cunha, Hats, 287.
Ramazan, E., Tobacco, 309.
Rambach, C., Chair, 225.
Ramires & Ramires, Woven silks, 287.
Ramirez & Cuataparo, Maps, 267.
Ramirez, Luis, Cobalt, 87.
Ramirez, Miss Soledad, Cottage, 267.
Ramnäs Iron Works Co., Iron ores, 78.
Ramnäs Stock Co., Iron, 78.
Ramos, J., Mats, 280.
Ramos, Joaquin Antonio, Bottles, 289.
Rampal, J., Mats, etc., 273.
Rampazzini, Frederico, Chemicals, 231.
Ramsay, A., & Son, Paints, 187.
Ramsay, D., Wool, 159; Boots, 189.
Ramsay, Mrs. Ebba, Drawings, 362.
Ramsay, T., Paints, 187.
Ramsden, S., Paper, 161.
Ramsey Bros., Wine, 180.
Ramsing, T., Chocolate, 224.
Ramsing, Th., Linen fabrics, 223.
Rand, A. W., Heater, 374.
Randall, A., Chart, 182.
Randall, J. V., Phaetons, 380.
Randle, W. H., Medicines, 134; Coolers, 377.
Rania, T. de la, Fabric, 281.
Rankin, John, Building stone, etc., 72.
Ranney, T., Idaho, 12.
Ranniger, J. L., & Sons, Gloves, 204.
Ranny, R. P., Ohio, 13.
Ransford, H., Brine, 74.
Ransom, D. L., & Co., Adjustable desks, 111.
Rap, Eugenio, Collection of minerals, 84.
Rapallo, José, Galena, 87.
Rapate, M., Necklace, 302.
Raphaelian, G., Collars, 299.
Raphaëlion, Gabriel, Brooches, 302; Tomahawk, 304.
Rasca Cement Exploring Co., Cement, 95.
Rasch, Clemens, Glass articles, 207.
Rasin, W. J., Coolers, 377.
Raskazoff, Stand, 319.
Rastergaeff, G., Iron, 99; Chemicals, bricks, 315.
Rath, Paul, Bay-window curtain, etc., 112.
Rathbone, Sard, & Co., Stoves, 375.
Rato, Antonio Moreira, Marbles, 94.
Raumer, C. V., Book, 349.
Rauss Ami, Dials, 355.
Ravenet, senior, Combs, 198.
Ravenstein, Ernest George, Maps, 338.
Ravesteijn, H. F., Stone, 220.
Ravon, H., Names, 237.
Rawbone, J. L., Guns, 190.
Rawbone, Thos., Cartridge creaser, 133.
Rawlins & Son, Smalts, 145.
Raybaud, D., Reading method, 343.
Raymond, Hipolito, Collection of minerals, 83.
Raynald, John, Inks, 104.
Raynor, E., Limestone, 68.
Raz Oglou Hussein, Coffee pots, 293.
Razakoula, A., Fabric, 293.
Razoula, Marble, 97.
Reach & Johnston, Base balls, 336.
Read, A. N., Implements, 328.
Read Carpet Co., Carpets, 122.
Read, J. C., Mats, 157.
Read, J. M., Cooking range, 376.
Read, M. C., Ornaments, 329.
Read, R. B., Berries, 157.
Read, Stevenson, & Co., Stone, 73.
Read, Wm. H., Perfumeries, etc., 106.
Real Del Monte Company, Minerals, 86.
Real, José, Carbonate of lead, 87.
Rebello & Co., Cotton fabrics, 253.
Reboucas, A., & Castro, Photographs, 367.
Rech, J., Buggy, 380.
Rechid Effendi, Lace, 298; Coverlet, 301.
Rectem, J., Embroidered picture, 217.
Redding, R. B., California, 11.
Reed, A., & Co., Bookbinding, 132.
Reed & Barton, Silverware, 113.
Reed, G. L., Judge, Gr. XV., 17.
Reed, H., & Co., Vinegar, 164.
Reed, S. G., Oregon, 13.
Reed, Sir C., Judge, Gr. XXVIII., 19.
Reefton Committee, Quartz, etc., 63.
Reese, Graff, & Woods, Steel, 56.
Reeve, R. H. & B. C., Oil cloths, 119.
Reeves & Eastburn, Furniture, 111.
Reeves, I. G., Wool, 165.
Reeves, S. H., & Co., Bed, 109.
Regad, A., jr., Diamonds, 197.
Regenhart, Raymann, & Kufferle, Table linen, 208.
Reggio Brick Manf'g Co., Bricks, 232.
Regis, Cisneros, Cream of tartar, 270.
Regnier, Ridge, 194; Gauze, 298; Wooden roofing, 346.
Rego, A. P., Clothing, 287.
Regordosa & Co., Cotton, 273.
Rei, J. J., Pharmaceutical preparations, 283.
Reich, Federico, Cordage, 261.
Reich, H. & Chr., Chemicals, 202.
Reichart, A., Shoes, 208.
Reichel, J., Colors, 315; Cotton stuffs, 316; Silk, 317; Embroideries, 318.
Reichert's Sons, F., Silks, 208.
Reid, A. W., Coal, 63.
Reid & Cooper, Stove, 374.
Reid, R., Marble mantelpiece, 188.
Reid, William, Ornaments, 172.
Reille, E. G., & Co., Tin boxes, 376.
Reif, J., Jewelry, 209.
Reifer, F., Judge, Gr. XXI., 18.
Reiffenstein & Rösch, Chromos, 211.
Reiff-Huber, Bolting cloth, 212.
Reifschneider, F., Frames, 113.
Reig & Co., Silk, 276.
Reig, R., Cloth, 274.
Reilly, E. M., & Co., Rifles, 152.
Reimandi, Giuseppe, Cream of tartar, 231.
Reimer, Dietrich, Maps, 348.
Rein, F. C., & Son, Electric machines, 339.
Reinbot, Educational, 372.
Reinhardt, C., Bedstead, 188.
Reinwald, E., & Co., Books, 344.
Reis, H. F. dos, Canes, 254.
Reis, José Antonio, Raw silk, 286.
Reis, M. J. B., Judge, Gr. IV., 16.
Reis & Monteiro, Printing, 289; Lithographs, 370.
Reisinger Manf'g Co., Ink, 104; Locks, 115.
Reisky, N. C., Furs, 129.
Reissbarth, G. C., & Son, Brushes, 206.
Rekanié, Government of, Carpet, 296.
Relief Ass'n for the Needy, Reports, 360.
Remaggi Bros., Linen, 233.
Remigio, R., Grammar, 266.
Remington, E., & Sons, Fire arms, 133.
Remmey, R. C., Chemical apparatus, 106.
Remy & Co., Starch, 218.
Renau, A., Soap, 271.
Renen, S. van, & Co., Wines, 171.
Renfrew, G. R., & Co., Furs, 189.
Renfrew Manf'g Co., Ginghams, etc., 118.
Renick, Curtis, & Co., Buggy, 381.
Renner & Buchler, Jewelry, 204.
Rennes, D. W. van, Machine, 361.
Repetti, Joseph, Model, 179.
Repper, J., Gloves, 208.
Requiao, F. P., Hats, 253.
Resoagli, Luis, Quartz, 83.
Resor, W., & Co., Stoves, 375.

Resse, V., jr., & Bros., Decorations, 254.
Retchani, Government of, Silk, 297.
Retimo, Government of, Gall nuts, 306; Olives, 307; Wine, 313.
Rettig, C. A., Iron ores, 78; Iron, 79.
Rettig, J., Design, 110.
Reukauff, G. C., Bouquet tables, 112.
Reuleaux, Prof., Judge, Gr. XX., 18.
Reus, N., Brushes, 221.
Revere Copper Co., Bronze cannon, 59.
Revillon Bros., Furs, 198.
Revuelta, Carrillo, & Montes, Uteroscope, 278.
Rey Gomez, A., Box, 277.
Rey, senior, Linen fabrics, 216.
Reyburn, Hunter, & Co., Vanes, 139; Rods, 331.
Reyes, J., Shirting, 280.
Reyes, J. de los, Pantaloons, 281.
Reyes, L., Ornaments, 281.
Reyhner, F., Silk goods, 253.
Reymann, O., Essences, 280.
Reymyre Glass Factory, Glassware, 225, 226.
Reynal, L., Pharmacies, 192; Case, 199.
Reynante y Cancio, Manuel, Ores, 88.
Reynaud, Flannel, 195.
Reyner, F., Cotton goods, 253.
Reynolds, C. T., & Co., Paints, 104; Brushes, 142.
Reynolds, J., & Son, Range, 375.
Reynolds, J. P., Illinois, 12; Judge, Gr. XXIII., 18.
Reynolds, J. P., & Co., Escutcheons, 142.
Reynolds, John N., Salt, 171.
Reynolds & Volkel, Furs, 189.
Rezende, C. Xavier, Stalactites, 82.
Rezendes, B., Counterpane, 285.
Rezendes, Francisco dé, Petticoat, 287.
Rheims, A., Screws, 199.
Rheingantz & Vater, Woolen goods, 253.
Rhenish-Nassau Co., Lead ores, 75.
Rhode Island Board of Education, Books, 322.
Rhode Island Cardboard Co., Cards, 132.
Rhodes & Co., Ores, 49; Iron, 56.
Rhodes, I. M., Chair, 135.
Rhoner, Frank, & Co., Reclining chairs, 112.
Riba Bros., Buttons, 277.
Ribas, E., Music, 366.
Ribas, Limas, Silk wefts, 287.
Ribas, M. de Sa, Alum, 82.
Ribe, F., Hats, 318.
Ribeiro, D. C. d'Almida, Violin, 369.
Riber & Co., Paper, 278.
Ribot & Bros., Hemps, etc., 273; Sandals, 276; Portmanteau, 277.
Ricart & Co., Prints, 273.
Ricasoli, Baron Bettino, Olive oil, 231.
Ricci, L., & Sons, Hats, 234.
Ricci, P., Sculpture, 235.
Rice, D., & Co., Books, 327.
Rice, H. T., Nevada, 13.
Rice, J. D., Rods, 331.
Rice, S. W., & Co., Base balls, 336.
Rich, F. H., Judge, Gr. XIX., 18.
Richard, B, Floor, 194.
Richard Borden Mfg. Co., Printing cloths, 118.
Richard & Granducontangne, Hematites, 87; Gravel, 90; Soft iron, etc., 92.
Richard, T., Son, Album, 358.
Richards, C. H., Delaware, 12.
Richards & Hartley Flint Glass Co., 108.
Richards, J. J. & J. M., Jewelry, 127.
Richards, Kearne, & Gasquoine, Soda, 144.
Richards, T., Lithographs, 157; Photos., 340.
Richards, W. S., Coffee, 172.
Richardson, Boynton, & Co., Furnaces, 374.
Richardson, C. D., & Co., Tents, 117.
Richardson, E., Judge, Gr. VIII., 16.
Richardson, G., Stone, 54; Stone pipe, 107.
Richardson, J. N., Playing cards, 132.
Richardson, J. N., Sons, & Owden, Linen goods, 149.
Richardson, McKee, & Co., Carriage, 381.
Richey, M. S., Stone, 53.
Richland Furnace Co., Ores, 48; Iron, 58.
Richland, G., Butterflies, 180.
Richlin, J., Leather, 254.
Richman, J. W., Wines, 168.
Richmond, Backus, & Co., Ticket case, 111.
Richmond, Geo. Q., Colorado, 11.
Richmond Marble Co., Pedestal, 53.
Richmond Mfg. Co., Calicoes, 119.
Richter, C. W., Instruments, 351.
Richter, E. A., Embroidery, 209.
Richter, F., Ultramarine blue, 192.
Richter, I., & Sons, Cotton velvets, 208.
Richter-Linder's Institute, Report, 357.
Rickards, Charles, & Ayscough, Silks, 150.
Ricker, R. E., Judge, Gr. XVIII., 18.
Ricla, Corporation of, Marbles, 90.
Riddle, G. W., New Hampshire, 13
Riddle, J., Cheese, 163.
Riddle, J., Son, & Co., Tickings, 116.
Riddle, L. F., Delaware, 12.
Ridgway, J., Heirs of, Revolving battery, 134.
Riedl von Ridenstein, D. & F., China, 207.
Riefler, C., Instruments, 349.
Rieken y Gerdes, George, Sulphur, 88.
Riera, L. A., & Co., Corks, 272.
Rieter-Biedermann, J., Music, 358.
Rieter, J. J., & Co., Photographs, 356; Plans 357.
Rietschoten, van, & Houwens, Model, 361.
Rigand & Dusard, Chemical preparations, 192.
Rigaud & Co., Soaps, 192.
Rigby, J., & Co., Guns, 152.
Riggins, G., Clay, 73.
Riggs & Bro., Clocks, 329.
Riggs, J., Wheat, 167.
Righini Bros., Umbrella, 234.
Rigl, R., Bed, 208.
Rigollot, Meters, 344.
Rigollot & Co., Poultice, 192.
Rigtrup, R. S., Mechanism for watches, 355.
Riha, Ernst, Water colors, 207.
Riise, A. H., Bay spirit, 223.
Rijperman, C. J. F., Painting, 221.
Rikanié, Government of, Mineral water, 97.
Rikli, C., Tables, 353.
Rikogunsho, Imp. War Dept., Litters, 247.
Riley & Lynch, Trimmings, 128.
Riley & May, Billiard tables, 188.
Rimmel, E., Perfumery, 145; Valentines, 152.
Rina, Chemise, 299.
Rinaldo, Raffaele, Olive oil, 231.
Rin-ami Hanzo, Fans, 247.
Ringerige's Nickel Works, Ores, 80.
Rinko, P., Hose, 299.
Rio de Janeiro Artistical Inst., Engravings, 366.
Rio de Janeiro Arts and Trades Lyceum Drawings, 366.
Rio de Janeiro Com. Inst., Drawings, 366.
Rio de Janeiro Faculty of Med., Books, 366.
Rio de Janeiro, Gen Com. from, Guitars, 367.
Rio de Janeiro House of Correction, Boots, 259.
Rio de Janeiro National Mint, Coins, 367.
Rio de Janeiro National Printing Office, 366.
Rio de Janeiro Naval School, Books, 366.
Rio de la Loza, M., Chemicals, 265.
Rio de la Plata Indus. Society, Cloth, 257.
Rio, Eustaquio, Arseniate of cobalt, 87.
Rio Grande do Norte, Province of, Boxes 274.
Rio Grande do Sul, Army Arsenal of, Metal meridian, 366.
Rio Junior, J. do, Tiles, 284; Statuettes, 370.
Rio, Rafael del Peñaranda, Bridles, 279.
Riosa, J., Fabric, 281.
Rio Tinto Co., Ores, 88.
Rio Vizella Weaving Co., Yarns, 285.
Ripka & Elton, Cotton goods, 119.
Ripley & Co., Glassware, 108.
Riquieri & Co., Brandy, 262.
Riscal de Alegre, Marquis of, Clay marl, 91.
Rischbieter, C., Window shades, 203.
Risdon Iron & Locomotive Works, Drawings, 335.
Riso, Isidoro, Soapstone, 84.
Ritch, W. G., New Mexico, 13.
Ritchie, E. S., & Sons, Instruments, 329.

Ritchie, J., Wine, 164.
Ritchie, J., & Sons, Brass, 190.
Ritter & Co., Jewelry, 204.
Rittmeyer, B., & Co., Dwellings, 357.
Ritze, P., Washington Terr., 14.
Riu-Kiu-han, Cloths, 245; Paper, 247.
Rivas & Co., Prints, 273.
Rivas, José, Book, 267.
Rivera, T. R., Book, 266.
Riverside Iron Works, Nails, 142.
Rives, Furniture, 343.
Riza Effendi, Candles, 291; Fruits, 371.
Rizzi, A., Blinds, 233.
Rizzo Giorki, Frame, 293.
Rizzuto Carmelo, Essences, 232.
Roach, J. C., Bedstead, 110.
Roache, A. L., Indiana, 12.
Roballo, J. J., Coat, 253.
Robb, J. M., Finance, 11.
Robbi & Co., Chocolate, 214.
Robbins & Appleton, Cases, 333.
Robbins, Clark, & Biddle, Silverware, 113; Jewelry, 127; Cutlery, 139; Clocks, 330.
Roberst, E., Frame, 272.
Robert, G., Widow & Son, Merinoes, 195.
Roberts, A. & P., Iron, 59.
Roberts, C. D., Bicycles, 383.
Roberts, Ch. W., Maine, 12.
Roberts & Co., Building sandstones, etc., 72.
Roberts, D., Bicycle, 154.
Roberts, Henry, Steel, 58.
Roberts & Herell, Metal goods, 126.
Roberts, J., Phaetons, 154, 383.
Roberts, Rev. H., Manuscripts, 327.
Robertson, Almanac, 179.
Robertson Bros., Photographs, 162.
Robertson, J., Buggies, 157, 383; Fleece, 161.
Robertson, Mrs. S. E., Epergne, 173.
Robertson, P., Tools, 190.
Robertson, Robt., Model of gold fields, 70.
Robertson, W. W., Birds, 163.
Robinot, Ch., Gas fixtures, 194.
Robinson Bros. & Co., Soaps, 103.
Robinson, Fowler, & Co., Brooms, 380.
Robinson & Pratt, Inks, 105.
Robinson, R., Nevada, 13.
Robinson, Savage, & Co., Books, 132.
Robinson, Vincent, & Co., Carpets, 150.
Robion, J., Hair flowers, 259.
Robitaille, Dr., Limestone, 72.
Robitsek, H., Instruments, 351.
Robledo, L. P., Clogs, 276.
Robles, Miss R., Embroidery, 265.
Robson, Albert, Spikes, 228.
Roca Bros., Fishing line, 278.
Roca, J. E. de, Fabric, 281.
Rocandio, Jorge, & Sharby, Phosphate, 87.
Rocco, F., Olive oil, 232.
Rocha, Francisco José da Silva, Pouches, 289.
Rocha, J. P. da, Buttons, etc., 254.
Rocha, Miss A., Music, 266.
Rocha, Polybio da, Furniture, 253.
Rochambeau, Le Marquis de, Judge, Gr. VII., 16.
Rochester Tumbler Co., Glass tumblers, 109.
Rockhill Iron & Coal Co., Ores, 48; Iron, 57.
Rockhill & Wilson, Clothing, 125.
Rockland Slate Quarry, Slates, 72.
Rockville Manufacturing Co., Cassimeres, 120.
Rockwood, Geo. F., Photographs, 334.
Rodanet, A. H., Watches, 345.
Rode, C. N., Ink, 229.
Rodek Bros., Jewelry, 209; Leather goods, 210.
Röder, C. G., Prints, 348.
Rodgers, S. C., Wagon, 381.
Rodman, R., Doeskins, 120.
Rodney, J. H., Alternate, 9.
Rodoreda, F., Indigo, 280.
Rodrigues de Vasconcellos, M., Judge, Gr. VI., 16.
Rodriguez, A., Cloth, 274; Satin, 275.
Rodriguez, A. A., Writing desk, 253.
Rodriguez Bros., Cloths, 274.
Rodriguez, J., Indigo, 280.
Rodriguez, L., Tintarron, 280.
Rodriguez Mambillar, M., Cloth, 275.
Rodriguez, R., Boots, 276.
Rodriguez, S., Mustard, 259; Spurs, 260.
Rodriguez & Sangronis, Boots, 257.
Rodriguez, V., Flax seed, 259; Harness, 260.
Rodriguez, Zurdo, Saddles, 279.
Rodriques, José Pereira, Pharmacies, 289.
Roe, W. A., Boots, 151.
Roelens, D., Plan, 360.
Roger & Montlouis, Papers, 199.
Rogers, C., & Bros., Trimmings, 143.
Rogers, Duck, & Lewis, Liquid, 374.
Rogers, J. & J., Iron Co., Iron, 57.
Rogers, Salamanca F., & Co., Claret, 262.
Rogers Upright Piano Co., Piano, 333.
Rogers, W. A., Machines, 329.
Rogers, W. D., & Co., Carriages, 380.
Rogoslooski Crown Copper Works, Ores, 98.
Rogul, A., Teeth, 266.
Rohan, General de Beaurepaire, Chart, 367.
Rohr, Walter von, A., Combs, 213.
Rohrbeck & Goebler, Air pump, 135.
Rohrer, J., Refrigerator, 376.
Rohrman, J. Hall, & Son, Caddies, 140.
Roibon, E., Herbarium, 259.
Roibon, F., Fabric made by Indians, 256.
Roiz de la Parra, G., Cotton, 273.
Rojas, J. M., Mats, 280.
Rojas, J. M. de, Hats, 281.
Rokopolani, H., Cloth, 301.
Rola, Vincent, Music method, 338.
Rolandi, G. B., Crystals, 233.
Rolando, G., Ink, 232.
Rolffs & Co., Cotton and mixed goods, 203.
Rolhle, Louis, Knobs, 206.
Rolin, H., Son, & Co., Shawls, 217.
Rollins, G. D., Burner, 114.
Roman, Gabriel, Coal, 84.
Roman, Medardo, Wild fennel, 259.
Romani, E., & Wife, Embroidery, 234.
Romani & Puigdengolas, Paper, 277.
Romani & Tarres, Sons of, Paper, 278.
Romano, Gaetano, Sulphur, 81.
Romay, Gabriel, Ores, 83.
Romer & Co., Locks, 141.
Romeu & Barella, Bricks, 272.
Romier, Cuatafraro T., Book, 267.
Romirez, S. & C. J., Rocks, 86.
Rommel, W., Works, 342.
Römmler & Jonas, Prints, 348.
Rom Nickel Works, Ores, 80.
Ronchetti Denti, B., Gloves, 276.
Rondeau Bros., Instruments, 199, 200.
Roos, P., Drawings, 321.
Roosevelt, H. F., Organs, 332.
Root, R. C., Anthony, & Co., Stationery, 131.
Roothaan, L., Music, 361.
Roots, L. H., Arkansas, 11.
Roozin, T., Harness, 320.
Rörstrand Stock Co., Feldspar, 78; China, 226.
Rosa & Carin, Tools, 279.
Rosa, J., Napkins, 285.
Rosa, M., Cassimeres, 265.
Rosa Martinez, J. de la, Syrup, 270.
Rosa, Vicencia, Woolen fabrics, 286.
Rosales, G., Hats, 281.
Rosamond Woolen Co., Cassimeres, 189.
Rosario Hacienda, Cottons, 265.
Rosas, J., Books, 266.
Rose, J. L., Magnet, 363.
Rose, Katie, Kapas, 250.
Rose, S. C., Porcelain, 241.
Rose, W., & Bros., Tools, 137.
Rosell, P. A., & Co., Wall paper, 227.
Rosenbach & Co., Shirts, 124.
Rosenberg & Cohen, Cotton goods, etc., 203.
Rosenberg, D., & Son, Varnishes, 104, 374.
Rosenberg, S., Brandy, 171.
Rosendahl Mfg. Co., Paper pulp, 227.
Rosengarten & Sons, Chemicals, etc., 101.
Rosenlunds Spinning Co., Yarns, 226.
Rosenstein, W., Chemicals, 201.
Rosetti, C. G., Album, 234.

Rosewood Mine, Coal, 67.
Rosier, J., Boots and shoes, 161.
Rosillo, Don F., Judge, Gr. XXIII., 18.
Rospigliosé, Prince Clemente, Olive oil, 231.
Rosquellas, J., Medicines, 255.
Ross, A., Petroleum, 63; Odonmeter, 342.
Ross & Co., Microscopes, 339.
Ross, John L., Cotton goods, 117.
Ross, R. D., Wines, 168.
Ross, W. J., Building, 378.
Rosseli, P., Periodical, 368.
Rosselli Del Turcó, Olive oil, 231.
Rossi, A., Idaho, 12.
Rossi, L. C. C., Soaps, 232.
Rossi, T., Wheat, 163.
Rosso, L. Cav. C., Ropes, 235.
Röstranda Stock Co., Porcelain, 225.
Rotali, F., Olive oil, 232.
Roth, F., Gloves, 209.
Roth, J., Jewelry, 204.
Roth, M., Maps, 363.
Roth, Wm., Judge, Gr. XX., 18.
Rothenbach, Gas works, 356.
Rothschild, Bros. & Gutman, Shirts, 125.
Rothschild, J., Books, 344.
Rouault, Ch., Syrup, 192.
Roucheu, Skins, 311.
Roulleaux du Gage, M., Judge, Gr. XI., 17.
Roullies & Co., Brushes, 200.
Roure, B., Son, Materials for perfumery, 193.
Rous, E., Inkstand, 198.
Roussel, E., Fabrics, 195.
Roussio, T., Ochre, 292.
Routlege, Wm., Coal, 71.
Roux, Charles, jr., Soaps, 192.
Roux, L., Heaters, 194.
Rowand, J. R., Apparatus, 136.
Rowland, B., & Co., Shovels, 137.
Rowland, J., & Co., Iron, 55.
Rowland, Joseph S. C., Ink, 105; Pad, 130.
Rowland, W. & H., Springs, 378.
Rowlands & Lewis, Tonics, 65.
Rowley, Wilson, & Co., Coal, etc., 63.
Rowney, George, & Co., Varnishes, 145.
Roxbury Carpet Co., Carpets, 122.
Roxo, Monteiro, & Lemos, Book, 366.
Roxo, Viuva de A., Hats, 287.
Roy & Co., Mechanical chair, 188.
Roy, J., & Co., Yarns, shawls, 120.
Royal Agricultural Society, Apparatus, 363.
Royal Baking Powder Co., Yeast, 101.
Royal Carpet Manufactory, Hangings, 220.
Royal Economical Society, Yeast, Costumes, 363.
Royal Porcelain Manufactory, Bas-relief, 223.
Royal Porcelain Works, Porcelain, 202.
Royal Prussian & Ducal Brunswick Smelting Works, Ores, 75; Chemicals, 201.
Royal Prussian Ministry of Commerce, Trade, & Public Works, Books, 350.
Royal Salt Works, Salt, etc., 201.
Royal School of Art Needlework, 147.
Royal Society for the Prevention of Cruelty to Animals, Publications, etc., 360.
Royal Society of Tasmania, Tables, 182.
Royal Staff, Denmark, The, Maps, 224.
Royal Swedish Commission, Books, 362, 363.
Royal Swedish Commissioner, Figures, 226.
Royal Swedish Staff General, Maps, 363.
Royal War Office, Sweden, Arms, etc., 227.
Royo, Remegio, Wines, 268.
Rubaton, Ges. & Co., Carbonate of soda, 192.
Rubber Step Manufacturing Co., Steps, 379.
Rubidge, C., Wool, 171.
Rubio Perez, Juan, Serpentine, 90; Syrups, 278.
Rubolti, C., Meter, 344.
Ruddenklau, J. G., Wheat, 156.
Rudder, E. W., Linens, 157; Fibre, 159.
Rudolph & Walter, Buffet, 336.
Rudy, C., Book, 344.
Rue, Mrs. S., Furniture polish, 104.
Rue, T., Stencils, 138.
Rueda, Manuel, Iron, 89.
Ruedas y Pedraza, Soap, 271.
Ruffer & Co., Sheet zinc, 75; Chemicals, 201.
Ruffin, J. B., Hats, 197.
Rufus, Fr. Wilh., Account books, 205.
Rui & Tolon, White metal, 92.
Ruis & Co., Paper, 278.
Ruis, D., Book, 266.
Ruiz, Vincent F., Sandals, 276.
Rul, Miguel, Photographs, 269.
Rull, Miguel, Minerals, 86.
Rumieri, G., Hats, 234.
Rumpelmayer, V., Models, 352.
Rumpp, C. F., Leather goods, 129.
Rumpp, Chas., Leather goods, 129.
Runcorn Soap & Alkali Co., Soda, 144.
Rundell, Joseph B., Maps, 339.
Rupertus, J., Revolvers, 133.
Rusch, P. O., Furniture, 225.
Rush & Co., Oils, 103.
Rush, E. L. G., Texas, 14.
Rusk, T. J., Swing, 114.
Rusque, Juan, Claret, 262.
Russell, Grand Manan, Copper glance, 70.
Russell, H. G., Car coupler, 382.
Russell, J., Sleighs, 381.
Russell, John, Cutlery Co., Knives, 139.
Russell, S., Clay, 73.
Russell, T., Wool, 165.
Russell, W. P., & Co., Show case, 110.
Russell, W. W., Gold in quartz, 70.
Russell, Willis, Antimony ore, 71.
Russian American India Rubber Co., 320.
Russian Navigation & Trade Co., Coal, 98.
Russian Rail Mfg. Co., Ore, 98; Needles, 319.
Russo, C., Olive oil, 232.
Rustad, A. S., Norwegian furs, 230.
Rustem Effendi, Judge, Gr. IV., 16.
Rutherford, A., Wool, 165.
Rutland Marble Co., Marble, 53.
Rutledge, W., Fleeces, 165.
Rütschi, S., & Co., Silks, 212.
Ruyter, C. de, Carriages, 218.
Ryckere, E. de, Brushes and pencils, 218.
Ryder Bros., Maize, 158; Cotton, 159.
Ryder, W. H., Tackle, 152; Taps, 153.
Ryffel & Co., Silks, 212.
Ryn, J. H. van, Wines, 170.
Rziha, F., Designs, 351.

S.

S. João d' El Rei Commission, Plaster, 82.
Saal, F. O., Model of larynx, 206.
Saame & Co., Chemicals, 201.
Saavedra Ramirez, Alejo, Magnesia, 91.
Sabacheira, Parochial Board of, Limestone, 95.
Sabate, Brunet, Instruments, 92.
Sabato Bros., Belting, 277.
Sabin, J., & Sons, Dictionary, 327.
Sabis, B., Foot rule, 342.
Sabro, I. C., Bitters, 224.
Sabut, G., Fancy articles, 254.
Sachs, Joseph, & Co., Umbrellas, 205.
Sachse, E., & Co., Chemicals, 201.
Sachse, F., & Son, Dress shirts, 123.
Sacken, Boetticher, Schmidt, & Ooss, Millinery, 317.
Sacquelen, F., Samples of stone, 77.
Sacré, L., Lace, 217.
Sado, J., Linens and towels, 273.
Saenz Martinez, J. B., Candles, 271.
Safarana, J., Candles, 252.
Safford, J. M., Tennessee, 14; Judge, Gr. I, 15.
Safonoff, S. A., Toys, 320.
Safran Bolu, Morocco, 310.
Sagamore Mills, Printing cloths, 118.
Sagarminaga, G., Clay, 272.
Sage, F., Show cases, 147.
Sagoundjaki, L., Gauze, 298.
Sahak Ousta, Woolen, 295.
Sahalim, Bacbac, Honey, 312.
Sahlbom, W., Maps, 363.
Said Effendi, Carpets, 296.

Saint George, W. H., Book, 353.
Saito, Z., Vase, 249.
Saiz, J., Armor, 279.
Sakaguchi, S., Emb'd'y, 246; Pictures, 249.
Sakai, T., Photographs, 249.
Sakaiken, Local Government of, Cloth, 245.
Sako, Bracelets, 302.
Sak-Volders, J., Bed ticking, 216.
Sala, Baladia, & Coll, Cotton hosiery, 276.
Saladrigas Bros., Prints, 273.
Salamanca Mining Society, Tin ore, 89.
Salas, Corporation of, Marble, 90.
Salas de los Infantes, Prov. Com. of, Costumes, 276.
Salas, Manuel M., Marble, 84.
Salas & Terry, Rum, 264.
Salazar, Miss, Photographs, 267.
Salbé, D., Rice, 309
Salcedo, L., Bogota, Oil of wood, 261.
Salcedo, Uladislas M., Ore, 83.
Saldanha da Gama, Capt. L. F., Judge, Gr. XVI., 17.
Saldanha, J. de, Judge, Gr. VI., 16.
Saldanha, José de, Judge, Gr. XXIII., 18.
Saldanha, L. de, Compass, 366.
Saldne, Erzeroum, Salt, 291.
Salé Agha, Madame, Pillow case, 295.
Salé, Z., Indigo, 292.
Salem Shade Roller Co., Rollers, 113.
Salerno, Special Committee of, Linen, 233.
Salga, Maria da, Hat, 287.
Salgado, Rodriquez R., Jackets, etc., 276.
Salgueiro, N. F. D., Pharmacies, 283.
Sali Agha, Madame, Bag, 296.
Sali Djestine, Trimmings, 301.
Sali Hadji, Wheat, 308.
Sali Ichkodra, Poutargue, 304.
Sali Kamber, Silk, 297; Cord, 299.
Saliaz, J. V., Cosmetic, 271.
Saliceto, Correction Dept. of, Cloths, 233.
Saligo, Vandenberghe, Lace, 217.
Salih, Tissue, 293.
Salih, I., Barley, 309.
Saline de Coniah, Salt, 291.
Salinella, Baron Michele, Rock salt, 231.
Salisbury & Co., Flags, 142.
Sallandrouze, S. P., Glass, 108; Mirrors, 113.
Sallares & Son, Juan, Fabrics, 274.
Salles, Germano José de, Marbles, 95.
Salles, Joaquim José de, Marbles, 94.
Salmon Com. of Tasmania, Trout, 183.
Salobanoff, D. A., Crosses, 319.
Salomó & Co., Canvas, 273.
Salomon, Soap, 291; Olives, 307.
Salomon, Wheat, 309; Skins, 311; Cotton, 313.
Salonica, Government of, Oil, 291.
Salta, Prov. Com. of, Galena, 83; Salt, 255; Goblets, 256; Cuirass, etc., 257; Boots, 258; Medicinal herbs, 259; Harness, 260.
Salter, J. G., Console tables, 112.
Salter, Samuel, & Co., Coatings, 149.
Salter, W., & Son, Wines, 168.
Saltinski Crown Iron Works, Ores, 98.
Saludares, W., Hats, 281.
Salva, de Pelle, Claret, 262.
Salvi y Don, Antonio, Combs, 277.
Salvo, C., & Sons, Gold work, 234.
Samakon Factory, Iron ore, 97.
Samar, Provincial Board of, Fabric, 281.
Samarina Yani, Knife, 305.
Sammes, J. B., & Co., Hubs, 379.
Samora Correa, Baroness, Salt, 283.
Samos, Government of, Galena, 96; Zinc, 97; Soap, 291, 297; Resin, almonds, 307; Seeds, 309; Honey, 312; Cocoons, 314.
Samos, J. Goncalves de, Paper, 289.
Samuelson, S. H., Peat, 78.
San Carlos, Sub-commission of, Clay, 85.
San Juan de Alcaráz Metallurgical Soc'y, Brass articles, 272.
San Juan, Govt. of the Prov. of, Minerals, 83; Cloaks, 257; Hats, 257; Harness, 259.
San Juan, Metallurgical Co. of, Cartridges, 278; Metal articles, 579.
San Juan Provincial Com., Stone, 84.
San Luis, Ladies' Commission, Cups, 256.
San Luis, Provincial Commission of, Minerals, Indian articles, 83; Gold from La Carolina mine, 85; Crockery, 256; Mattress, 257; Hats, 258; Herbs, 259; Bristle, horse-cloth, harness, etc., 260.
San Manuel, Asylum of, Bag, 277.
San Paulo House of Correction, Bridles, 254.
San Paulo, Province of, Iron ores, 81.
San Paulo, Province of, Pharmaceutics, 252; Straw furniture, 253.
San Pedro do Sul, Province of, Coal, 82.
San Pedro do Sul, Province of, Bricks, 252.
San Pedro, Governor of, Fabrics, 280.
San Rafael Company, Minerals, 86.
San Roman, P., Wax, 271.
Sanchez, F., Stone, 85; Trimmings, 276.
Sanchez, Miguel, Salt, 270.
Sancta Catherina, Province of, Coal, 82; Furniture, 253.
Sanctis, G. de, Judge, Gr. XXVII., 19.
Sand, M., Flowers, 127.
Sandberg, A., Penmanship, 364.
Sandberg, A. Cook, Writing chair, 225.
Sandberg, C. P., Drawings, 335.
Sande, Olivares G. de, Ore, 88.
Sandeman, F. S., Yarns, 148.
Sanders, W., Cotton goods, etc., 203.
Sandford & Co., Books, 132.
Sandford Mills, Robes, 121.
Sandhurst, City of, Photograph, 162.
Sandrot, José, Stones, 84.
Sandusky Tool Co., Planes, 138.
Sandusky Wheel Co., Woodwork, 379.
Sandvikens Iron Works, Iron, 79.
Sandy Creek Claim, Quartz, 166.
Sandy Creek Puddling Co., Quartz, 166.
Sangalan, M., Towels, 280.
Sangster & Co., Umbrellas, 151.
Sanhudo, J. F., Instruments, 369.
Sanóvikens Stock Co., Iron ores, 78.
Sans de Mardevall, Fans, 277.
Santa Candida School for Girls, Penmanship, 366.
Santa Cruz, Simon de, Sand, 84.
Santa Ella, Corporation of, Waters, 91.
Santa Fé, Provincial Commission of, Embroidery, 258; Horse cloths, etc., 260.
Santa Rosa, House of, Embroideries, 263.
Santa Teresa, House of, Artificial flowers, 263.
Santain, E. T., Judge, Gr. XXVII., 19.
Santander Mining & Foundry Co., Ores, 89.
Santi, A. A., Perfumery, 232.
Santiago del Estero Prov. Com., Stones, 84.
Santiago del Estero, Prov. Com. of, Ashes, 255; Counterpanes, 256, 257; Embroidery, 258; Herbs, 259.
Santiago Fuentes, I., Acid, 271.
Santiago, Villa, Coffee, 268.
Santiagós & Co., Tiles, 272.
Santillan, J. C., Cuffs, 258.
Santini Bros., Straw, 234.
Santo Thirso, Antonio dos Reis, Shoes, 287.
Santos, A. M., Mats, 285.
Santos, á Quintino dos, Music, 366.
Santos & Bro., Mirrors, 284; Hats, 288.
Santos, Francisco A., de los, Stone, 84.
Santos, J. A. dos, Marble, 94; Marble bath, 284; Counterpanes, 285; Woolen fabrics, 286; Nails, 289.
Santos, J. M., Matting, 285.
Santos, Manuel Moreira, Tools, 289.
Santos, P. C. dos, Hats, 253.
Santos, Rocha, & Morena, Tubes, 289.
Sanz, Manual, Cloth, 274.
Sanz, Mariano, Jet, 91; Cloths, 274.
Sanz & Sons, Cloth, 274.
Sapojnikoff, A. & W., Silk, 317.
Saracini, Alessandro, Olive oil, 231.
Sarak, Salif, Saddles, 305.
Sarasin & Co., Dwellings, 357.
Saratoga Victory Mfg. Co., Cambrics, 116.
Saravin, Pablo, Sulphate of lime, 84.

Sarchet, J. W. & J. T., Sand, kaolin, 54.
Sarettiere, G., Lamps, 233, 235.
Sarg, F. A., Son, & Co., Wax candles, 207.
Sargadelos Foundry & Delft Factory, Clay, 91; Ingot, 92.
Sargent, D., Salt, 173.
Sargent & Greenleaf, Locks, 142.
Sargent & Ham, Phaeton, 381.
Sargent, W. P., & Co., Buggies, 381.
Sarmento, A. E. de, Journal, 369.
Saronkhan, Government of, Ore, 97; Opium, 304; Gall nuts, 306, 309; Cotton, 313.
Sarradj Moustapha, Saddle girth, 305.
Sarral, Lokhia, Pyrites, 96.
Sarral, Mouradite, Galena, 96.
Sartain, J., Chief of Bureau of Fine Arts, 10.
Sarton, G., Hats, 276.
Sartorious, F., Analytical scales, 349.
Sassi Nahil, Bracelets, 302.
Sauberlich, A., Chemicals, 201.
Saucon Iron Co., Ore, 50; Pig iron, 57.
Sauders & Co., Soaps, 220.
Sauerländer, H. R., Manuals, 354.
Saumillan, M., Cloth, 275.
Saunders, S., Walking canes, 189.
Saunders, S. P., Shells, etc., 173.
Saunders, Wm., Perfumery, 187.
Sauter, A., Cigars, 214.
Sauvage & Ruck, Bronzes, 194, 199.
Savage, A., Idaho, 12; Judge, Group I., 15.
Savage, Alfred, & Son, Oil, 187.
Savage, Keyser, & Stovell, Acids, etc., 102.
Savary & Rondeleux, Jewelry, 197; Watches, 344.
Savery, J., Massachusetts, 12.
Savi Faki, Moustapha, Morocco, 310.
Savournin, W. H., Toilet powders, etc., 105.
Sawin, L. H., Cane-seat chairs, 112.
Sawyer & Buckley, Tables, 109.
Sawyer, R. H., & Co., Woods, etc., 173.
Sawyer Woolen Mills, Cassimeres, 120.
Saxlehner, Andreas, Mineral water, 76.
Saxon Thuringian Co., Chemicals, 201.
Sayas Karabetli, Silk, 297.
Sayo, Veja de la, Oil, 268.
Says, J., Boots, 276.
Sbertoli, Giuseppe, Carbonate of lead, 231.
Scammano, Cav. Michele, Cedrats, 81.
Scanian Cement Co., Cement, 78.
Scapatura, A., Music, 368.
Scaraviglia, Torquato, Album, 365.
Scarselli, B., Gruma, etc., 232; Hats, 234.
Scattergood, W. W., Drain tile, 107.
Scavo Vita Brothers, Sulphur, 81.
Schaar, E. E. A., Judge, Gr. XVIII., 18.
Schachner, F., Plans, 352.
Schadelbauer, V., Buttons, 209.
Schaefer & Co., Cloth, 203.
Schaerer, Emil, & Co., Silks, 213.
Schaetzler, G. E., Metal leaf, 202.
Schafft, Fridolin, Sideboard, 111.
Schakal, A., Silk, 297.
Schalck, H., Buttons, 288; Nails, 289.
Schaller, J., Looking glasses, 202.
Schalton, Pierry, & Co., Mineral waters, 219.
Schantz & Kats, Jewelry, 204.
Scharf, J. T., Maryland, 12.
Scharlach, Louis, jr., Roofing, 75.
Schastey, George A., Furniture, 110.
Schaum, J. P., Kettles, 377.
Schedler, J., Globes, 321.
Scheehan, Diogo Jorge, Kid gloves, 287.
Scheffer, E., Pepsin, 101.
Schehl, C. W., Jewelry, 204.
Scheidecker, Ch., Machines, 199.
Scheider, J., & Co., Goods, 377.
Scheidl, A., Gold frames, 208.
Scheitlin & Widmer, Embroideries, 213.
Scheitlin & Zollikofer, Manuals, 354.
Scheller, Ferdinand, Malt preparations, 205.
Schenck, J. H., Clock, 330.
Schenck, J. V., Mattress, 110.
Scherer Bros., Kirschwasser, 214.
Schermerhorn, Chas., Stand and rack, 112.
Schermerhorn, J. W., & Co., Books, charts, school material, 321.
Schickendantz, F., Medicinal herbs, 259.
Schikendantz, M., Quilt, 257.
Schidebalaki, H. N., Oil, 291.
Schiedmayer, J., Piano, etc., 350.
Schiedmeyer, J., Judge, Gr. XXV., 19.
Schier, H., Mirror, 113.
Schilizzi, E. F., Silk, 297.
Schiller, Jos., & Co., Hats, 126.
Schilling, V. Chr., Military weapons, 205.
Schimmel & Co., Essential oils, 202.
Schimmelpfing, A., Kaolin, 82.
Schirin Agha, Pyrites, 96.
Schisshyte-Molnebo Iron Works, Ores, 78.
Schisshyttan-Molnebo Mfg. Co., Iron, 79.
Schit Mohammed, Gall nuts, 306.
Schlaepfer, J. U., Muslin, 212.
Schlafhorst & Brüel, Cotton goods, etc., 203.
Schlegel, E., Plates, 348.
Schlegel, J., Toys, 205.
Schleife Tanneries, Leather, 214.
Schlenk & Lutzenberger, Toys, 205.
Schlesinger, C., Judge, Gr. XXVII., 19.
Schlesinger, Martin, Paper letters, 205.
Schlessinger & Lummer, Leather, 350.
Schleuerpflug, E., Toys, 205.
Schlieper & Baum, Calico, 203.
Schlimp, C., Designs, 352.
Schloglmuhl Paper Factory, Paper rolls, 210.
Schlotterbeck, A. S., Thermometer, 329.
Schlyter, G. R., Costumes, 363.
Schmid, Jos. Ed., Concave glass articles, 207.
Schmidl Sons, W., Passementerie, 208; Haberdashery, 209.
Schmidt, A., Mineral waters, 85.
Schmidt, A., & Co, Glass, 215.
Schmidt, Brothers & Sisters, Window glass, 215.
Schmidt, C., Cement, 98; Oil, 315.
Schmidt, Devillez, & Co., Glass, 215.
Schmidt, E., Axles, 320; Spring tester, 383.
Schmidt, Emile Schaerbeck, Cordial, 219.
Schmidt, F., Cosmetic, 315; Models, 352.
Schmidt, H., Designs, 351; Models, 352.
Schmidt, H. W., Books, 348.
Schmidt, Heinr., & Gunther, C., Books, 348.
Schmidt, J. Ph., & Sons, Woolens, 208.
Schmidt, Joseph, Bitters, 214; Apparatus, 351.
Schmidt, Major, Rifle, 213.
Schmitt, F., Wine, 164.
Schmitt, H., Music, 351.
Schmitt, L., Wheat, 163.
Schmitt, Nicolau, & Co., Harness, 254.
Schmitz, F. A., & Co., Skins for hats, 218.
Schmitz, P., Books, 360.
Schmoll, A. von, Models, 352.
Schmoranz, F., Designs, 351.
Schnabl, J., Laces, 209.
Schneelock, O., Target, 133.
Schneider, B., Embroideries, 204.
Schneider, C. F., Lint, 212; Knives, 214.
Schneider, W., Toilet articles, etc., 210.
Schnek & Kohnberger, Rubber, 211.
Schnidel, John Adam, Stones, 75.
Schnidler, C. A., Piano stools, 334.
Schnyder, J. J., Bristles, 212.
Schoenfeld, E., jr., Jewelry, 204.
Schoenfeld, H., Reports, 360.
Schoenhof, J., & Co., Skirts, 124.
Schoenner, G., Instruments, 349.
Schoffel, A., Papier-maché boxes, 210.
Schoffer & Budenberg, Gauges, 349.
Schofield, Seville, Blankets, etc., 121.
Schokking, J. A. J., Tube, 221.
Scholfield, J. H., Stoneware, 284.
Schöller, J. P., Cloths, 203.
Schöller, L., & Son, Cloths, 203.
Scholler, Ph. J., & Sons, Wire goods, 203.
Scholz, P., Yarns, 203; Hosiery, 204.
Schomacker Piano Co., Pianos, 332.
Schon, J. G., Maps, 352.
Schönfeld, G., Books, 348.
Schopp, P. J., Ventilator, 382.

School for Poor Girls, Worsteds, 261; Weaving frame, 262.
School of Medicine, Books, 371.
School of Mines of Columbia College, Drawings, 335.
Schött, Hermann, Fancy papers, 205.
Schotte & Co., Maps, etc., 348.
Schöttle, G., Furniture, 202.
Schough, Robert, Iron ores, 78.
Schoverling & Daily, Rifles, 133.
Schrabetz, E., Plans, 352.
Schrebler, Federico, Card-baskets, 261.
Schreck, Maximiliano, & Kemp, Ore, 94.
Schreiber, I. F., Books, 348.
Schreiber, S., Glassware, 207.
Schreiber, W. A. H., Clay, etc., 54.
Schreiner, A., Drinking utensils, 202.
Schrenkeisen, M. & H., Rocking chair, 110.
Schroder, J., Models, 349.
Schroeder, C., Wines, 164.
Schröeder, Theodore, Ore, 83.
Schrœder, Wilhelm, & Co., Silks, 213.
Schroyer, J. C., Ornaments, 328.
Schubeler, F. C., Map, etc., 364.
Schubert & Co., Music, 348.
Schubeuter, J., Show case, 109.
Schucani & Wegman, Liquors, 224.
Schuchardt, T., Chemicals, 201.
Schultz, C. H., Waters, 55.
Schultz, J. S., New York, 13.
Schültz, Thurebyholm, Model, 224.
Schultze, G. A., Apparatus, 349.
Schulz, O. A., Book, 348.
Schulze, Books, 348.
Schum, Philip, Quilts, etc., 118.
Schunemann, L., Dolls, 205.
Schurman, A., Patent medicines, 283.
Schuyler, Hartley, & Graham, Costumes, 123.
Schwabe, Salis, & Co., Cotton prints, 149.
Schwan, W., Buttons, 210.
Schwanhäuser, Pencils, 205.
Schwann, L., Publications, 348.
Schwarz, J. von, Gas burners, 202.
Schwarz & Son, J., Hat bands, 209.
Schwarzenbach, Landis J., Silks, 213.
Schwarzenhorn, Fr. von, Porcelain, 229.
Schwarzmann, H. J., Designs, 336.
Schwarzmann, D., & Co., Men's clothing, 208.
Schwechten, G., Pianos, 350.
Schweigert, Auguste, Sauce, 214.
Schweigert, W., & Co., Cigars, 158.
Schweinberg, G., Carpets, 208.
Schwer, B., jr., Clocks, 349.
Sciacca della Scala, Oil, 232; Silk, 234.
Sciaccaluga & Co., Fish, 262.
Scioto Fire Brick Co., Fire bricks, 107.
Scioto Furnace, Iron ores, 48; Pig iron, 58.
Sci-shi-jo Silk Reeling Estab., Silk, 246.
Scocchiolini, A., Pomatum, 232.
Scorgie, Wight, & Co., Granite fountain, 52.
Scott, G., Pennsylvania, 14.
Scott, G. B., Photograph, 167.
Scott, J., Wheat, 163.
Scott, J. M., Judge, Gr. XXI., 18.
Scott, J. W., & Co., Stamp albums, 336
Scott, Q. A., Dentifrice, 136.
Scott, Robson John, Blocks, 338.
Scott, T. S., & Bro., Paper carpet, etc., 132.
Scott, W. & C., & Sons, Fire arms, 152.
Scott, W. D., Nebraska, 13.
Scovill Manufacturing Co., Brass, 59.
Scovill, S. S., & Co., Buggy, 381.
Scranton, L. S., Buggy, 380.
Scribner, Armstrong, & Co., 327.
Scribner, D., Salmon, 191.
Scuderi, Giuseppe, Cream of tartar, 231.
Scurati, M. de G., Cotton, 233.
Seabra, José dos Santos, Jewelry, 288.
Seabury & Johnson, Plasters, 134.
Seaman & Co., Grindstones, 73.
Seaman, L. L., Percussor, 135.
Searle, C., Wool, 183.
Searls, A., Sockets, 379.
Seavy, Foster, & Bowman, Silk, 122.
Sebah, Photographs, 371.
Sebou, N., Silk, 297.
Secchi de Casali, G. F., Judge, Gr. IV., 16.
Seckler, J., Specimen work, 254.
Secombe, R., Milk, 158.
Secor, Jerome B., Automaton birds, 334.
Secrétan, Instruments, 345.
Secretan, E., Copper, 195.
Sedj Agha, Purse, 302.
Seefeldt, W. F., Instruments, 332.
Seeley, J. B., Trusses, 136.
Seelhorst, G., Judge, Gr. II., 15.
Seemann, E. A., Books, 348.
Seewald, M., Leather ware, 210.
Seffarlen & Fritz, Warps, 122.
Segant, Shoemakers' tools, 199.
Segelche, T. R., Judge, Gr. IV., 16.
Segovia, Carolina, Hides, 264.
Segueira, D. A., Painting, 290.
Séguin, Althocinum, 193.
Seguin, Bordeaux, Dyes, 193.
Segura, Rufino, Soapstone, etc., 84.
Sehi Tassane, Cases, 302.
Seid Abdul Hamid, Silk, 297.
Seid Alil, Silks, 298.
Seid Alip, Tables, 292.
Seid Chaban, Z., Maize, 309.
Seid Cherif, Tissues, 293.
Seid Hadji, Grapes, 307.
Seid Hassan, Garment, 299.
Seid Hussa, Mahaleb, 307.
Seid Mchemed, A., Wheat, 309; Apricots, 312.
Seid Ragui, Plate, 292.
Seid Yayia, Silk, 297.
Seidler & May, Sofa bed, 111.
Seidler, T., Spokes, 379.
Seifu, Y., Vases, 245.
Seigert, Dr., Bitters, 184.
Seikan, S., Jars, 245.
Seiler, E., Piano, 350.
Seilles lez Andenne Bouffoulx Co., Clay, 215.
Seit, Hadji, Potash, 291.
Seitz, G. W., Judge, Gr. XIII., 17.
Sekitei, I., Vases, 245.
Seki-yu Kuwaisha Petroleum Co., Oils, 244.
Selim Agha, P., Waters, 292.
Selim Arikili, Smokers' articles, 302.
Selim Kohi, Wool, 314.
Selim, M., Cord, 299.
Selim Zeutekli, Pipe stems, 302.
Selim Zia Effendi, Canes, 302.
Seliverstoff, N., Woolen cloths, 316; Hair, 317.
Sell, Charles P., Soap, 207.
Sellers, Chas. P., Brooms, 142.
Sellers, W., Finance, 10.
Sellers, William, & Co., Iron, 59.
Selma & Alabama R. R., Ore, 48; Iron, 56.
Selma, Rome, & Dalton Railroad, Ores, 50; Pig iron, etc., 57.
Selsor, G., & Co., Hammers, 137.
Semare, Govt. of, Carpet, 296; Garment, 300.
Semenoff, Silver plate, 316.
Séminaire Ste. Thérèse, College work, 342.
Semple, S., & Sons, Thread, 116.
Sensfelder, A., Pomades, 193.
Sequeira, Francisco Pinto, Boots, 287.
Sequeira, T., & Carneiro d'Andrade, E., Ore, 94.
Serdar, Hassan Oglou Hussin, Raisins, 312.
Serdukoff, B., Cosmetics, 315.
Sere, Edouard, Minerals, 85.
Serebrenikoff, S., Tureens, 320.
Serfiché, Government of, Wheat, 308.
Sergeant, B. M., California, 11.
Sergeieff, P. W., Paper, 318.
Sergent, Th., Faience, 193.
Serkiz, Marble, 97.
Serra, Felippe José, Boots, 287.
Serra & Font, Liquor, 278.
Serra, J., Ink, 271.
Serrana, Florencia, Waistcoat, 287.
Serrano, B., Cloth, 275.
Serrano, Cardona, & Co., Tubing, 89.
Serraris, P. A., jr., Apparatus, 360.

Serravalle, C., Chemical preparations, 255.
Serres, A. de, Models, 352.
Serret & Turull, Shawls, 274.
Serrinha Tin Co., Ore, 94.
Sert Bros. & Solà, Woolens, 274.
Serta, G. N., Ventilation, 216.
Sertorio & Pinho, Kid gloves, 254.
Servant, C. J., & Co., Velvets, 196.
Servet, J. Marc, Son, Tools, 358.
Serzedello & Co., Chemicals, 283.
Sestroretzk Rifle Mfy., Arms, 319.
Seth Thomas Clock Co., Clocks, 330.
Setzuzan, A., Vases, 245.
Seurin, J., Varnish, 193.
Sève, E., Books, 261.
Sévène, Barral, & Co., Failles, 196.
Seventh Day Adventist Pub. Assn., 328.
Several Contributors, Woods, 174.
Severino, Perez, Pipitza-huina, 268.
Severt, Wm. A., Drawings, 335.
Sevey, J. A., Bone, 129.
Sevilla & Perez Bros., Baskets, etc., 273.
Seward, M., & Son, Hardware, 379.
Sewill, J., Chronometers, 339.
Seychelles, Chief Com. of, Woods, 181.
Seydoux, Sieber, & Co., Threads, 195.
Seyfoullah, R., Leather, 310.
Seymour, Henry, & Co., Shears, 139.
Seymour Paper Co., Paper, 131.
Sfakia, Government of, Lime, 97; Pitch, 306
Shadrin, E., Embroideries, 318.
Shaffner & Stringfellow, Wool, 119.
Shalter, R. M., Iron ore, 48; Pig iron, 57.
Shanahan & Jennings, Wool, 159, 180.
Shannon, J. B., Locks, 140.
Shantz, J. Y., Mirror, 188; Ivory buttons, 189.
Sharland, W. C., Hops, 183.
Sharland, W. S., Wool, 183.
Sharp, H. E., Son, & Colgate, Windows, 113.
Sharp, Jos. S., Salt, 187.
Sharpless, J. M., & Co., Extract, 104.
Sharpless & Sons, Costumes, 125.
Sharp's Rifle Co., Rifles, 133.
Sharswood, W., Coal, 47.
Shaw, A., Iowa, 12.
Shaw, A., & Co., Brooms, 160.
Shaw, A. F., Dakota, 12.
Shaw, C. A., Box, 377.
Shaw, F., Wool, 183.
Shaw, F. E., Maine, 12.
Shaw, F. K., Wine, 164.
Shaw, J. G., Warps, 116.
Shaw, J. H., & Co., Mirrors, 113.
Shaw, P., Copper pyrites, 70.
Shaw, Thomas Ogg, Mineral paint, 105.
Shearer, Smith, & Co., Granite, 61.
Shedd, J. Herbert, Engineering, 335.
Sheeler, Buckwalter, & Co., Stoves, 374.
Shelajiff, S. & G., Bros., Silk, 317.
Shelby Iron Co., Iron ores, 48; Pig iron, 57.
Sheldon & Co., Books, 327; Axles, 379.
Sheldon & Fenton, Silks, 150.
Sheldon, H. L., Newspaper, 250.
Sheldons & Slason, Marble, 53.
Shenandoah Gold Mining Co., Quartz, 65.
Shepard & Dudley, Instruments, 135.
Shepard, S., & Co., Japanned ware, 376.
Shepardson, H. S., & Co., Gimlets, 137.
Shepherd, C. H., Refuse of cork, 376.
Shepherd, H. E., Drawings, 321.
Shepherd & Lloyd, Scales, 137.
Sheppard, Arrison, & Sheppard, Curtains, 110.
Sheppard, I. A., & Co., Stoves, 375.
Sheppard, W., Bible, 342.
Sheppard, W. G., Violoncello, 342.
Shepperd, E., Quartz, 166.
Shereshevsky, N., Shirts, 317.
Sherman, B. R., Iowa, 12.
Sherwood, G., & Co., Books, 326.
Shetucket Co., Fancy stripes, etc., 117.
Shibata, Y., Silks, 246.
Shibe, J. D., Base balls, 336.
Shichijo Yasunori, Statuettes, 249.
Shields, King, & Co., Sands, etc., 54.
Shields, T., Bolts, 379.
Shields, W., Bolts, 379.
Shiga-ken, Local Government, Mats, 247.
Shii-no, S., Silks, 246.
Shikki-Shosha, Furniture, 245; Toys, 246.
Shiloff, A., Harness, 320.
Shimidzu, J., Bamboo, 247.
Shimidzu, K., Tea sets, 244.
Shimidzu, Rokubei, Vases, 244.
Shimidzu, S., Bowls, 244.
Shinhelm, Models, 372.
Shinn, Wm. P., Engineering exhibit, 335.
Shinoda, K., Vases, 245.
Shinoyama, A. U., Bronze, 249.
Shi-o-kawa Bunrin, Picture, 249.
Shipley, Howard W., Cutlery, 139.
Shippen, W. W., Portraits, 336.
Shippo-Kuwaisha, Enamel, 245; Fans, 247; Caddy, 249.
Shiromidzu, Ch., Silk dress, 246.
Shishkin, S., Harness, 383.
Shitomi Sohei, Y., Vases, 244.
Shiu-shi-kiyoku, Map, 248.
Shlippe, Chemicals, 315.
Shmidt, Dr. von, Plaster, 319.
Shoemaker, J. L., Solicitor, 10.
Shoemaker, R., & Co., Fluid extracts, 101.
Shoemaker, S. M., Alternate, 9.
Shoemakers' Co-operative Soc'ty, Shoes, 234.
Shoemakers' Society, Boots, 197.
Shoenburger, J. H., Pennsylvania, 14.
Shoenhof, J., & Co., Felt skirts, 127.
Shokkojo Weavers, Dress silks, 246.
Shomi, Y., Vases, 249.
Shoninger, B., Organ Co., 332.
Shoobert, J., Bark, 158.
Shoobridge, E., Hops, 183.
Shoolbred, J., & Co., Furniture, 147.
Shootoff, Arm chair, 316.
Shorey & Co., Clothing, 189.
Shorey, J., & Co., Fixtures, 113.
Shortridge, N. P., Finance, 11.
Shove Mills, Printing cloth, 118.
Shoza, T., Cups, 245.
Shrader, Table, 315.
Shrader, A., Woolen goods, 317.
Shroder, F., & Co., Cotton drills, etc., 117.
Shroeder, F. & H., Pulpit, 109.
Shubert, L., Hats, 317.
Shuler & Benninghofen, Felts, 120.
Shulthess, Friedr., Manuals, 354.
Sibalon, Gov. & Municipality of, Fabric, 281.
Sibeth, Otto, Map, 336.
Sibley, A. H., Silver ores, etc., 70.
Sibley, Col., & McIntyre, J., Galena, 71.
Sibley, F. K., Emery cloth, 55.
Sicard, Juana G. de, Stone, 83.
Siddall Bros., Book printing, 132.
Sidenbladh, E., Statistics, 362.
Sidmaki, S., Beans, 309.
Sidoroff, Michael, Ore, 98; Costumes, 318.
Siebenhüner, A., Violins, 332.
Siebenpfeiffer, C., Jewelry, 204.
Siegenthaler, Sl., Boots, 212.
Sieger, E., Lithographs, 211.
Siegerland, Mine Owners of the, Ores, 75.
Siegismund & Volkening, Literature, 348.
Siegl, C., Linen, 208.
Siegmund, W., Woolens, 208.
Siemens Bros., Gutta percha, 339.
Siemens, C. W., Iron, 62; Pyrometers, 339.
Siemsen, J., Hemp goods, 203.
Sieperman, C. F., & Son, Chemicals, 201.
Sierra, Francisco, Coal, 89; Jet, 91.
Sierra, Justo, Book, 267.
Sigler, C. & J., Signs, 113.
Sihieldknecht, Apparatus, 372.
Silas, Rogers, & Co., Axles, 379.
Siles, I., Essences, 232.
Silicate Paint Co., Paints, 145.
Silicon Steel Co., Steel rails, 56.
Sillery, Convent de, pupils' work, 342.
Silliman Chemical Works, Chemicals, 102.
Silva, A. J. de L. e V., Cocoons, 286.

Silva, A. J. P. da, & Alves, Sewing silk, 286.
Silva, Antonio Moreira, Hats, 287.
Silva, B. da, Mats, 285.
Silva, Bernardino Antunes, Kid gloves, 287.
Silva, Callado J. A da, Music, 366.
Silva Continho, J. M. da, Judge, Gr. XXVI., 19.
Silva, David Jose da, & Sons, Figured silk; 287.
Silva, F., Cotton, 256.
Silva, F. J. X. da, Cups, etc., 254.
Silva, F. M. da, Compositions, 366.
Silva, Guimaraes, Shoes, 287.
Silva, H. J. da, Shoes, 253.
Silva, J. B. C. da, Hats, 253.
Silva, J. Baptista da, Horse bits, 290.
Silva, J. P., Linen stuffs, 285; Shoes, 287.
Silva, J. P. N. da, Memoirs, 369.
Silva, Joaó d'Oliveira, Furniture, 290.
Silva, Joaquim da, Toothpicks, 288.
Silva, José Francisco, Brown woolen cloth, 286.
Silva, José Goncalves, Bird cages, 288.
Silva, L., Prisms, 82.
Silva, M., Napkins, 258.
Silva, M. A. Machado da, Iron, 82.
Silva, M. da, Pottery, 283.
Silva, Manuel José Francisco da, Silk, 287.
Silva, Miguel Manuel da, Military boots, 287.
Silva, Pessanha da, Annals, 366.
Silva, S. A. P. da, Salt, 283; Model, 369.
Silva, S. A. P. da, & F. A. Marques de Moura, Plan, 95.
Silva, S. S. G. da, Ink, 252.
Silva & Santos, Statuettes, 370.
Silvas, M. D. da, Matting, 285.
Silver Islet Co., Ingot of silver, 74.
Silver, Jno., Marble, 72.
Silver Lake Co., Braided cords, 123.
Silver Spring Bleaching & Dyeing Co., Cotton cloth, 117.
Silver, W. H., Churns, 377.
Simaes, Rosa Clara, Blanket, 286.
Simerell, C. B., Ornaments, 329.
Simes & Tate, Filter, 377.
Simes, Wm. F., & Son, Camphor, 101.
Simmons, W. C., Wool, 183.
Simms, T. S., & Co., Brushes, 190.
Simon Bros., Embroidery, 258.
Simon, M., Model, 361.
Simon, May, & Co., Shawls, 150; Curtains, 151.
Simon, P., Carpet, 297.
Simona, Giorgio, Photographs, 358.
Simonds' Manufacturing Co., Ranges, 374.
Simonin, L., Judge, Gr. I., 15.
Simonis, I., Woolen stuff, 217.
Simons & Co., Mosaic tiles, 193.
Simons & Malcolm, Door mats, 155.
Simons, Opdyke, & Co., Jewelry, 127.
Simons, P., Bindings, 221.
Simonsen, C., Punch, 223.
Simpson & Co., Pianos, 333.
Simpson, John, Manganese, 70.
Simpson & King, Cotton fabrics, 149.
Simpson, Robert, Coal, 71.
Simpson, W. H., Maine, 12.
Simpson, W., & Son, Prints, 119.
Simson, A., Fabric, 280.
Singer, J. W., & Son., Metal work, 147.
Singer, Max, Aniline products, 215.
Singer, Nimick, & Co., Steel, 56.
Singer & Talcott Stone Co., Stone, 53.
Sinigaglia, S., Heir of, Silk, 233.
Sinsz, P., Tools, 137.
Sintz, Geo., Limestone and lime, 54.
Sippel, C., Turning, 379.
Siqueira, P., Agates, 82.
Sirch, O., Skins, 310.
Sirkilé, O., Skins, 310.
Sirletti, F., Sets of teeth, 235.
Sirot, C. & L., Nails, 200.
Sisters of Charity, Embroideries, 242.
Sitnoff, G., Boots, 317.
Sittig, J., Buttons, 210.
Sjoberg, A. P., Soaps, 225.
Skead, Building sandstone, 72.
Skead, W., Judge, Gr. VI., 16.
Skellington, S., Whip lashes, 191.
Skelly, T., Bolts, 379.
Skelton & Co., Lamps, 148.
Skelton, Tooke, & Co., Shirts, 189.
Skinner, G. M., Fishing tackle, 191.
Skorniakoff, E., Wood, 320.
Skrivàn, J., & Son, Hats, 209.
Skultuna Stock Co., Copper, 79.
Slade Mills, Printing cloths, 118.
Slataper, F., Judge, Gr. XVIII., 18.
Slater Cotton Co., Cotton goods, 116.
Slater & Perry, Boots and shoes, 189.
Slater, W. S., Cotton goods, 115.
Sloan, W. B., Ornaments, 328.
Sloter, Geo., & Co., Almanac, 179.
Smart, Dr., Gold, 68.
Smart, W., Oven, 148.
Smedley, Samuel L., Drawings, 335.
Smet, E. de, & Co., Thread, 216.
Smiley, T. J. L., California, 11.
Smirnoff, N., Felt, 317.
Smith, A. E., Axles, 379.
Smith, Alex., & Sons Carpet Co., Carpet, 122.
Smith, B. N., & Co., Piano legs, 334.
Smith, Borthwick, Chronometers, 339.
Smith Bros., Engraving, vases, 108.
Smith & Campion, Furniture, 109.
Smith, Chas. K., & Co., Oils, 103.
Smith, David, Book, 338.
Smith, E. J., Desk, 112; Envelope, 130.
Smith, Edward, & Co., Varnishes, 105.
Smith & Egge, Chairs, 140.
Smith, Estéban G., Petroleum, 263.
Smith, F. H., Judge, Gr. XXVII., 19.
Smith, Frederick, & Co., Iron, etc., 62.
Smith, G. J., Lace, 151.
Smith, G. S., Wine, 164.
Smith, Geo., Wheat, 163; Portable organ, 339.
Smith, H., Sleighs, 381.
Smith, H. D., & Co., Hardware, 379.
Smith, H. E., & Co., Cotton yarns, 117.
Smith, H. H., Canadian goods, 189.
Smith, H. J., & Co., Stained glass window, 108.
Smith, Hanway, & Co., Baking powder, 102.
Smith, J., Bismuth, 68.
Smith, J. C., Illinois, 12; Minerals, 48.
Smith, J. L., Judge, Gr. III., 15; Maps, 321.
Smith, J. & S., Tools, 153.
Smith, J., & Son, Needles, 151; Sleigh, 381.
Smith, J. T., & Co., Buggies, 381.
Smith, J. W., Needles, 151.
Smith, J. Y., Rhode Island, 14.
Smith, J. Y., Sheetings, 116.
Smith, James Nelson, Fruit wines, 156.
Smith & Kaye, Bricks, 188.
Smith, Marshall L., Mineral paint, 105.
Smith, Mrs. R. T., Lace, 174.
Smith, R. H., & Co., Saws, 190.
Smith, S. A., Chairs, 143.
Smith & Sayre, Drawings, 335.
Smith & Son, Biscuits, 164.
Smith, W. B., Counter show-case, 109.
Smith, W. M., Ornaments, 143.
Smith & Wesson, Fire arms, 133.
Smith & Wilby, Flannels, cotton, 189.
Smith, Wm., Peat, 71; Knives, 230.
Smith, Wm. Sooy, Engineering exhibits, 335.
Smithers, J. & G., Soap, 169; Wax, 170.
Smithers, Mrs. G. H., Flowers, 128.
Smith's Homœopathic Pharmacy, Homœopathic preparations, 134.
Smits, C., Model, 360.
Smucker, I., Ornaments, 329.
Smuts, Miss G., Articles of flowers, 171.
Smyrna, Government of, Lignite, 96; Salt, 291; Towels, 295, 296, 297; Jalap, 304; Pitch, 306; Almonds, 307; Wheat, 308; Wax, 312; Wool, 314.
Smyth & Co., Stockings, 151.
Smyth & Pennington, Files, 138.
Smyth, R. Brough, Maps, 65.
Snell Mfg. Co., Augers, 137.

Snow, C., Massachusetts, 12.
Snow, J. H., Model ship, 337.
Snowden, E. G., Wine, 164.
Snyder, C. Ridgway, Work table, 111.
Snyder, Jacob R., California, 11.
Snyers, Rang, & Co., Walnut furniture, 216.
Snyers, T., Judge, Gr. VII., 16.
Soares, José Nogueira, Shoes, 287.
Social Manufacturing Co., Cotton goods, 117.
Society of Friends, Jasper, 90.
Soden, Smith R. H., Judge, Gr. II., 15.
Soderen, F. W., Knives, 227.
Soenneken, F., Books, 348.
Soergel & Stollmeyer, Jewelry, 204.
Soggs, C. W., Vegetable parer, 376.
Sohmer & Co., Pianos, 333.
Sohn & Delabre, Porcelain, 198.
Sohn, L., Jewels, 193.
Solá, Ramon, Gypsum, 84.
Solanas, A., Shirts, 276.
Soldan, L. P., Oil, 264.
Soldevilla, E., Pistols, 278.
Soldiers, Com. on Wounded, Book, 221.
Solé, E., Cotton, 273.
Soleiman, Guengine, Galena, 96.
Solenhofen Joint Stock Co., Tiles, 75.
Solf, A., & Co., Rice, 264.
Soliman, Pocket knife, 305.
Solinas, Arras Giuseppe, Olive oil, 231.
Sollima, Giacomo, Scales, 365.
Solmans, Alden, Hats, 126.
Solo, Emilio de, Peroxide of manganese, 88.
Solomayor, P., Counterpane, 256.
Solomon, C., Map, 169.
Solomon, Saul, & Co., Bookbinding, 169.
Solomonoff, P. Z., Chests, 320.
Solvay & Co., Chemicals, 192, 215.
Somers, D. M., Penholders, 130.
Somerset, F., Photographs, 174.
Somerville, P. T., Marble monuments, 72.
Somes & Co., Oil, 184.
Sommelet, C., Cutlery, 199.
Sommerschuh, W. I., Earthenware, 208.
Somoza, Juan Manuel, Iron, 92.
Somoza Piñeiro, Ramon, Iron, 89.
Sonderegger, Y. Y., Manuals, 354.
Sonto, Antonio M. G., Silk cocoons, 286.
Sonto, José Sebastiao, Horse shoe, 290.
Sonto, Rodrigo Alves Martius de, Boots, 287.
Soorin, P., Carpet, 318.
Sooviroff, V. N., Woolen cloths, 316.
Soper, W., Rifles, 152.
Sopwith, Tomas, Galena, 88.
Sordoillet, J. F., Jewelry, 197.
Sorensen, C. P., Clothing, 223.
Sorensen & Kloostad, Carriage, 230.
Soriano, Aniceto, Salt, 270.
Sorokin, T., Gloves, 317.
Sosa, R., Ostrich feather caparison, 260.
Sossoolnikoff, J., Caps, 317; Crosses, 319; Harness, 320.
Soto & Barrera, Baskets, 277.
Soto, Mayor C., Minerals, 86.
Soto, O. & M., Stuffed condor, 262.
Soto y Tello, M., Tiles, 272.
Souchet & Co., Enamel, 193; Flowers, 198.
Souké, Government of, Ores, 97.
Soutar & Co., Tobacco, 172.
South Australian Commissioners, Marble, 166; Skins, 167.
South Boston Mfg. Co., Cannon, etc., 134.
South & North Alabama R.R., Ores, 48; Ircn, 56.
Southworth Co., Writing paper, 131.
Souza, B. J. J., Ink, 283.
Souza, José da Cunha Alves, Boots, 287.
Souza, Luiz Augusto de, Small bells, 289.
Souza, Maria Magdalena, Aloe fibres, 288.
Souza & Silva, A. J., Cotton yarns, 285.
Sovetoff, Mary, Shirt, 318.
Sower, Potts, & Co., Maps, 321.
Soyer, Paul, Jewelry, 197.
Sozeiriyo, Nat. Rev. Dept., Stamps, 248.
Spadaro, Grassi P., Citrates, 235.
Spafford, A. C., Illinois, 12.
Spahn, C. C., Jewelry, 204.
Spalhareon, Government of, Ore, 304.
Spamer, O., Books, 348.
Sparks, T. W., Drop-shot, 133.
Sparks, Westwater, & Co., Coal, 51.
Spaulding, D. S., Jewelry, 129.
Spear, J., & Co., Stoves, 374.
Special Commission to the Exhibition, Woods, minerals, 263; Silk, 264.
Spedalieri, Ba Felice, Sulphur, 81.
Speeler Pottery Co., Crockery ware, 108.
Speir, W., Drawings, 367.
Spellier, L. H., Regulator, 330.
Spemann, W., Works, 348.
Spence, John C., Stained glass window, 188.
Spence, Peter, Alum, 144.
Spencer, J., Dentistry, 157.
Spencer, O. B., Painting, 251.
Spencer Optical Mfg. Co., Lenses, 331.
Spencer, T., Sugars, 251.
Speth, K. L., Fancy cabinet ware, 112.
Spiegelberger, L., Chemicals, 202.
Spill, D., Ivoride, 153.
Spiller Bros., Cutlery, 190.
Spiller, Ph., Books, 348.
Spillman, H., Trusses, 136.
Spillmann, Heinrich, Tools, 214.
Spinelli, R., Soaps, 187.
Spink, S. L., Alternate, 9.
Spiral Elliptic Spring Works, Springs, 109.
Spitzer, Geo. W., Jewelry, 129.
Spofford, Jennie H., Bracket holder, 109.
Spooner, W. B., Alternate, 9.
Sprague, E., Maine, 12.
Spranger, N., Jewelry, 204.
Springer, J., Books, 348.
Springer, Morely, & Gause, Wheels, 379.
Spurr, C. W., Wood hangings, 133.
Squires, E., Fruits, 158.
St. Amand, A., Indian curiosities, 342.
St. Arnaud Pastoral & Agricultural Society, Oats, 163.
St. Gallen Aid Society, Annual reports, 357.
St. Gallen, Government of, Plans, 356.
St. Gallen Orphan Asylum, Report, 357.
St. Gobain, Chauny, & Cirey, Glass, 193: Mirrors, 194.
St. Hubert's Vineyard Co., Wine, 164.
St. Hyacinthe College, 342.
St. Isabel, College of, Sandals, 281.
St. James, C., Carriage, 381.
St. John, F., Ducks, fish, 163.
St. John Stone Chinaware Co., Stoneware, 188.
St. John's Stone Chinaware Co., Fire brick, 73.
St. Johnsbury Granite Co., Tablets, 53.
St. Louis & Iron Mountain R. R., Minerals, 48.
St. Louis Stamping Co., Utensils, 377.
St. Maria da Soledade, Colony of, Linens, 253.
St. Nicolas, C., Books, 359.
St. Petersburg Arsenal, Harness, 320.
St. Petersburg Mining School, Minerals, 98.
St. Petersburg, Municipality of, Plans, 373.
St. Petersburg Workshop for Educational Appliances & Games, Gymnastics, 372.
Staaf, P. O., Books, 362.
Staaff, Book, 344.
Stacoupola, Madame H., Cover, 301.
Stadtbauamt of Vienna, Plans, 352.
Staes, Sproelants, Oils, 215.
Stafford & Co., Yarns, 116.
Stafford Manufacturing Co., Stencils, 140.
Stafford Mills, Printing cloths, 118.
Stäheli-Wild, C., Embroideries, 213.
Stahl, Maurice, Chronometers, 355.
Stählberg, L. F., Cutlery, 227.
Stahlecker, C. F., Piano, 350.
Staiger, C., Ores, 67.
Stamadi Marneraki, Wines, 313.
Stambach, John A., & Co., Furs, 129.
Stampa Bula, F., Gloves, 276.
Standiford, E. D., Kentucky, 12.
Stang, T., Drawings, 361.

Stanhope Co., Ore, 68.
Stanley Bros., Tiles, 146.
Stanley, I. N., Setting of retorts, 335.
Stanley Rule & Level Co., Lathes, 137.
Stanley Works, Hinges, 140.
Stantien & Becker, Raw amber, 75.
Stanton, M., & Co., Hangings, 190.
Stanway, W., Models, 161.
Stapfer, John, Silks, 213.
Staples, C., Judge, Gr. XV., 17.
Star Furnace Co., Ores, 48; Iron, 58.
Star Knitting Co., Shirts, 125.
Star Plate & Universal Polishing Powder Co., Polishing powder, 61.
Star Tool Co., Tools, 137.
Stark Mills, Sheetings, 119.
Starkoff, E., Paper, 373.
Starr & Co., Tacks, 319.
Starr, John, Barytes, 71.
Starr Manufacturing Co., Skates, 190.
Starr & Marcus, Diamonds, etc., 127.
Starri, K., Wool, 314.
Starri, Oglou, Salep, 304; Skin, 310.
Stassfurt Chemical Factory, Salts, 201.
Statistical Bureau, Christiania, Statistics, 364.
Stauffenegger, Chr., Absinthe, 214.
Stchelkoff, Embroidery, 318.
Steam Net Manufactory, Nets, 203.
Steam Ticking Mills, Ticking, 203.
Stearic Light Co., Soaps, 252.
Stearns, Frederick, Pharmacies, 101.
Stebert, P., Essay, 359.
Stechel, Oils, 252.
Stecher, K., Instruments, 351.
Steck, G., & Co., Pianos, 333.
Steeger, H., Boilers, 378.
Steel Co. of Canada, Ores, 71; Iron, etc., 74.
Steel, E. T., Finance, 11.
Steel & Garland, Grates, 148.
Steele, John, Chairs, 110.
Steen, C., & Son, Maps, 224.
Steen, Daniel, Soaps, 229.
Steenberg, A., Newspaper, 223.
Steffan, F., & Co., Shawls, 121.
Stefsky, J., Cords, 208.
Stéhelin, Plans, 356.
Stehr, Carl, Amber, 128.
Steidinger, J., Penmanship, 353.
Steiger & Co., Embroideries, 213.
Steiger, E., Books, 321.
Stein, C., Furniture, 208.
Steinbach, G. P., Carriages, 381.
Steindl, C., Buttons, 210.
Steiner, H., Vases, 166; Inkstands, 167.
Steiner & Kolliner, Garnet jewelry, 209.
Steinhauer & Co., Jewelry, 204.
Steinhaus, J. F., Bibles, 348.
Steinhilber, A., Gloves, 209.
Steinmetz, D., Judge, Gr. XV., 17.
Steinmetz, F., Veneer, 211.
Steinway & Sons, Pianos, 332.
Stelwagon, J., & Sons, Paper, 132.
Stenburg's, G., Widow, Fabrics, 226.
Stenman, F. A., Locks, 227.
Stenographical Society, Books, 349.
Stenstrup, Painting, 223.
Stephani, Boots, etc., 300.
Stephen, A., & Son, Secretary, 188.
Stephen, Geo., Silver ores, 70.
Stephens, H. C., Inks, 145; Inkstands, 152.
Stephens, R. E., Rifle, 190.
Stephens, T. B., Leather, 180.
Stephenson, Blake, & Co., Printing, 338.
Stephenson, J., & Co., Cars, 382.
Steraux, E., Marbles, 82.
Sterchi, Fritz, Wood carvings, 358.
Sterling, E., Coal, 71.
Stern Portland Cement Factory, Cement, 75.
Sternberger, L. & S., Shirts, 124.
Sterns, Jno. N., & Co., Silks, 123.
Stetson, John B., & Co., Hats, 126.
Stettin Fire Brick Mfg. Co., Retorts, 202.
Steubenville Coal Co., Coal, 51.
Stevens, A. J., & Co., Oil cloth, 189.
Stevens, C. A., & Alrich, W. H., Bedstead, 109.
Stevens Institute of Technology, Model, 134; Instruments, 332.
Stevens, J., & Co., Shot guns, etc., 134.
Stevens, J. G., Alternate, 9.
Stevens Linen Works, Diaper, 119.
Stevens, Thomas, Regalia, 150; Cards, 152.
Stevenson, C. C., Nevada, 13.
Stevenson & Elliott, Landau, 161.
Steward, J., Ale, 164.
Stewart, A., Indicator, 330.
Stewart, A. C., Wool, 171.
Stewart, A. C., & Co., Angora hair, 171.
Stewart & Co., Wire, 57; Photographs, 162.
Stewart & Ferguson, Wheat, 163.
Stewart, G., Books, 169.
Stewart, G., jr., Chest, 190.
Stewart & Mattson, Locks, 140.
Stewart, Moir, & Muir, Curtains, 150.
Stewart, S. N., Rail, 374; Model, 382.
Stewart, W. W., Native copper, 70.
Stiasny, F. & M., Gloves, 209.
Stief, J., Toys, 205.
Stieff, C. M., Pianos, 333.
Stieglitz, Baron A., Sail cloth, 316.
Stierling, Dr. R., Model, 353.
Stiff, James, & Sons, Terra-cotta, 146.
Stiles, Mrs. E. W., Desk, 110; File, 130.
Still, W., Book, 326.
Stille, Alb., Surgical instruments, 227.
Stillwater Woolen Mills, Cassimeres, 120.
Stilson, E., Wisconsin, 14.
Stimson & Babcock, Varnishes, 105.
Stiraki Marinaki, Almonds, 307.
Stites & Co., Iron measures, 376.
Stitt, Price, & Co., Building stone, 54.
Stivers, R. M., Buggies, 380.
Stobie, James, Iron ore, 71.
Stock Co. for Mfg. Bricks, Limestone, 81.
Stock Co. for Mfg. Laces, Laces, 234.
Stockbridge Iron Co., Iron ore, 48.
Stockenström, Axel von, Ores, 78; Iron, 79.
Stockholm Central Printing Stock Co., 362.
Stockholm Royal Statistical Central Bureau, Diagrams, 362.
Stockholm Royal War Dep., Drawings, 362.
Stockholm Woolen Mfg. Co., Woolens, 226.
Stocking, Z. S., Stone, 54.
Stockton Spoke Works, Spokes. 379.
Stockwell Self-Lighting Gas Burner Co., 114.
Stoddard, C. J., Cartridge-loader, 134.
Stoddard, Richard T., Book rack, 130.
Stoddart, J. M., & Co., Books, 327.
Stoeber & Segitz, Metal leaf, 201.
Stoger, L., Gloves, 209.
Stokes & Parrish, Passenger elevator, 336.
Stolberg, Count, Castings, 206.
Stolberg & Westfalia, Galena, 88.
Stolze, J. F. E., Toys, 205.
Stolzle's Sons, C., Glassware, 207.
Stone, F. P., Buggy, 381.
Stone & Kaighn, Carriage, 380.
Stoneman, A., Carriage springs, 161.
Stoneman, E., Railway spring, 162.
Stoner, Hitchman, & Co., Coal, 51.
Stonestreet, Samuel, Diamonds, 169.
Stora Kopparbergs Bergslag, Iron ores, 78.
Storch & Kramer, Chromos, 348.
Storck & Sinsheimer, Jewelry, 204.
Storer, David, & Sons, Colors, 145.
Stork, C. F., Goods, 220.
Stotler, D. C., Limestone, 53.
Stott, C. H. & F. H., Flannel, 121.
Stout, W. C., Arkansas, 11.
Strachan, R., Salt, 182.
Strahan, Hodgson, & Co., Collars, 125.
Strahorn, Pierson, & Co., Wheels, 379.
Stramitzer, I., Laces, 209.
Strandberg, Fr. Aug., Varnishes, 225.
Strandberg, J., Brass, 227.
Strange, Wm., & Co., Silks, 123.
Straschitz, B., Men's clothing, 208.
Stratford, Hoe, & Co., Paper, 131.
Stratton, J. F., & Co., Violins, 350.

Straub, A., Gloves, 209.
Straus, J. E., & Co., Iron, 55, 143.
Strauss, D., & Co., Embroideries, 213.
Straw, E. A., U. S. Commissioner, 9.
Straw Hat Stock Co., Braided straw, 234.
Strazza Giammia, Widow of Lucca, Music, 365.
Street, H. M., Mississippi, 13.
Stregnas Match Mfg. Co., Matches, 225.
Strelnikoff, B., Shoes, 317.
Strembitzki's Laboratory, Appliances, 372.
Stringer & Co., Yeast, 160; Pickles, 164.
Stringer, J., Locks, 190.
Strobel, J. P., Toys, 205.
Stroem, Augustus, Furniture, 316.
Stroesser, J. P., Wire, 359.
Strogonoff Central School of Technical Drawing, Drawings, etc., 372.
Strohmeier & Co., Jewelry, 204.
Strom & De Planque, Marble, 53.
Strong, J. W., Missouri, 13.
Strong, W. L., Finance, 10.
Strookoff, Furniture, 372.
Strow, Wile, & Co., Crucibles, etc., 54.
Strumper & Co., Prints, 348.
Struthers Iron Co., Pig iron, 57.
Struthers, W., & Sons, Marble, 53.
Stuart, D. W., Stove, 374.
Stuart, Peterson, & Co., Stoves, 375.
Stuart, Seymour C., Quartz, 64.
Studebaker Bros., Buggy, 380.
Stunzi & Sons, Silks, 213.
Sturges Montserrat Co., Essences, 145.
Sturzenegger & Rutz, Cravats, 213.
Successful Society, Chakopirita, 87.
Such, George, Clay, 54.
Suchard, Ph., Chocolate, 214.
Suchy, A., Gloves, 209.
Suesberger, David, Fluid extracts, 105.
Suez Canal Co., Maps, 345.
Suhr, W., Chemicals, 201.
Suiro-riyo, Charts, 248.
Sukiasian, Silk, 297; Cocoons, 314.
Suleiman, Salt, 291; Coffee grinders, 293; Receivers, 302; Files, 305; Steelyards, 371.
Suleiman, Agha, Pipe, 302.
Suleiman, Ichkodra, Pitch, 306.
Suleimaneeyah, Government of, Brimstone, 96; Beads, 302; Gum, 306; Barley, 308; Wax, 312; Wool, 314.
Sullivan, J., Poor man's filter, 160.
Sullivan, J. D., Nevada, 13.
Sulzer Bros., Workmen's dwellings, 357.
Sumii, Z., Fans, 247.
Sumiyama, I., Silk, 246.
Sunday School Union, Books, 338.
Sundström, J. O., Ores, 78; Iron, 79; Nails, 228.
Sung Sing Kung, Furniture, 241; Embroideries, 242.
Supplicy, J. F., Pyrites, etc., 82; Chairs, etc., 253; Medals, 367.
Surahammars Iron Co., Iron, 79.
Sureda & Villalonga, Chloride of sodium, 270.
Surgical Clinic, Bandages, 205.
Suriani, A., Silver, 303; Scissors, 305.
Susse Brothers, Bronzes, 194, 199; Stationery, 198.
Sussex Boot & Shoe Co., Boots and shoes, 189.
Süssfeld, Lorsch, & Co., Clocks, 194, 345.
Susuki, Y., Earthenware, 244.
Sutherland, A., Boots and shoes, 189.
Sutherland, G., Book, 157.
Sutherland, J., Indiana, 12.
Sutherland, James, Coal, 71.
Sutro Bros., Braids, 123.
Sutter-Dörig, R., Embroidery, 213.
Suydam, M. A., & Co., Coal, 51.
Suzuki, Hiyakunen, Pictures, 249.
Suzuki, M., Buttons, 247; Vase, 249.
Suzuki, Yo, Silks, 246.
Svalling, E. M., Knives, 227.
Svanberg, C. E., Shoes, 226.
Svensson, A., Stuffed birds, etc., 362.
Swain & Co., Soap, 157.
Swain, E., Sugar, 264.
Swaine & Adeney, Whips, 151.
Swainson, Birley, & Co., Fabrics, 148.
Swallow & Ariell, Biscuits, 164.
Swansea Tin Plate Co., Tin plates, 62.
Swasey, I. N., Billiard tables, 111; Chart, 327.
Swedish Iron Masters' Assoc., Minerals, 78.
Swedmark, G., Gloves, 226.
Sweeney, A. J., Alternate, 9.
Sweeney, Thomas S., Photographs, 336.
Sweet, Orr, & Co., Pantaloons, 125.
Sweet, R. J., Copper glance, 70.
Sweet, S. H., Kaolin, 73.
Swett, Quimby, & Perry, Stove, 374.
Swift, C. N., Ventilators, 378.
Swift, James, Microscopes, 339.
Swinkels, W., Yarns, 220.
Swiss Alpine Club, Annual reports, 354.
Swiss Confederation, Department of the Interior, Regulations, 356; Statistics, 357.
Swiss Confederation, Department of Railroads and Commerce, Statistics, 356.
Swiss Geodetical Com., Longitude, 354.
Swiss Historical Society, Catalogue, 354.
Swiss Locomotive & Machine Works, Photographs, 356.
Swiss Manufacturing Co., Rifles, 213.
Swiss Meteorological Com., Observations, 354.
Swiss National Railway Co., Drawings, 356.
Swiss Northeast Railway Co., Plans, 356.
Swiss Reformatory, Statutes, 357.
Swiss Reformatory Institute, Report, 357.
Swiss Society for the Advancement of Natural Philosophy, Memoirs, 354.
Swiss Society of Engineers and Architects, Plans of roads and railways, 356.
Swiss Society for Instructing the Poor, Report, 357.
Swiss Society for Penitentiary Reform, Plans, 357.
Swiss Society for Promoting the Public Welfare, History, 357.
Swiss Statistical Society, Reports, 354.
Sydney Meat Preserving Co., Meats, 158.
Sykes, H., Awnings, 116.
Sykes, Josephine, & Co., Corsets, 150.
Symonett, Mrs. M., Tree, 173.
Synnot, G., & Co., Wool, 165.
Synnot, M., Wool, 165.
Syracuse Chamber of Commerce, Ropes, 235.
Syria, Government of, Salt, 291.
Syros, Government of, Lignite, 96.
Sytenko, John, Limestone, 98.
Sytoff, John, Brocade, galloons, 317.
Szczepansky, F., Boots, 317.
Szelibeiff, T., Boots, 317.

T.

Tâba, C., Bitters, 255.
Tabard, Benoit, & Co., Silks, 196.
Tabourot & Pacault, Shirts, 196.
Tabulevitch, T. R. N., Light, 373.
Tack, Loong, Vases, 241.
Tackabury, J. N., Maps, 342.
Tacony Chemical Works, Acids, 101.
Taddei, G., Straw, 234.
Tadjiché, M., Opium, 304.
Tæschler Bros., Photographs, 358.
Taft, R. C., Alternate, 9.
Tagliabue, G., Barometer, 329.
Tagliavia, Francesco, & Co., Minerals, 81.
Taglieb, Carl, Watch, 355.
Tahera, H., Carpet, 296.
Tahey, F., Arrowroot, 180.
Tahif, Gov't of, Wheat, 308; Honey, 311.
Tahir, O., Decanters, 292.
Tahlheim, G., Grease, 315; Wax, 318.
Ta-Ho-jo, Vase, 249.
Tahon, F., Plates, 199.
Tailors' Society, Clothing, 196; Dress, 265.
Tainsy, F., Mantelpieces, 216.
Taizan, Y., Tea sets, 245.

Takahashi, D., Vases, 244.
Takssim Effendi, Tobacco, 309.
Talamon, Son, & Co., Fabrics, 195.
Talep, H., Gauzes, 298.
Tallmadge & Co., Extracts, 105.
Tamai, C., Book, 248.
Tamassi, Aydonat, Oil, 291.
Tamayo, Sidney, Clays, 84.
Tambeur, M., Hunting weapons, 218.
Tamborrel, Equations, 266.
Tanach, Fabric, 293.
Tanach, T., Snuff box, 302.
Tanaka, Honi, Water color, 249.
Tanaka, R., Album, 249.
Tanasse, V., Chandelier, 293; Bells, stirrups, door knocker, 305.
Tancrède Bros., Glue, 192.
Tanera, Maps, 344.
Tangeman, G. P., Paper, 131.
Tantardini. Mr., Judge, Gr. XXVII., 19.
Tanzan Seikai, Vases, 244.
Tapa, Daniel, Ore, 96.
Tapia, Mrs. E., Books, 266.
Tapia y Pereira, Pedro, Guano, 270.
Tapissier Sons & Debry, Silks, 196.
Tapling, Thomas, & Co., Tapestry, 150.
Taquoui, Madame, Gauzes, 298.
Taraiche Metre, Madder, 306.
Tarai, D., Seed, 310.
Tarako, Flax, 314.
Taranaki Committee, Titanic iron, 63; Views, barks, 156.
Tarassoff, J., Crosses, 319.
Tarnero, S., Chili illustrated, 261.
Tarr, H. G. H., Stove plates, 335.
Tarr, H. S., & Son, Level, 329.
Tarrat & Sociats, Cloths, 274.
Tarriba Pablos, C., Manta, 276.
Tarrout & Co., Poutargue, 304.
Tarussi, Luigi, & Bros., Olive oil, 232.
Tasmania, Royal Society of, Topazes, 68.
Tasmanian Com., Rugs, 182; Furs, etc., 183.
Tasse Kochman, Cloth, 295; Silk fabric, 297.
Tassi, Peter, Marble, 81.
Tassia Didé, Prévézé, Oil, 291.
Tassinari & Chatel, Silks, 196.
Tasté, J., Thread, 217.
Tathma, T., Woolen fabrics, 295.
Tauchnitz, B., Publications, 348.
Taulard, Book, 343.
Taulez-Bottelier, Flax, 219.
Tauriño, Juan, Remedy, 270.
Tavares, José, Willow baskets, 289.
Tavares, Rita de J., Lace, 288.
Tayabas, Provincial Board of, Cases, 281.
Tayk Pasha, Opium, 304.
Tayler, D. F., & Co., Iron, 62; Pins, 151.
Taylor, B. K., Hat, 155.
Taylor, C. F., Orthopedic apparatus, 135.
Taylor, C. R., & Co., Soaps, etc., 106.
Taylor, D., Wool, 183.
Taylor & Farley Organ Co., Organs, 334.
Taylor, G., Wool, 183.
Taylor, J., Wheat, 162.
Taylor, J. H., Paste, 136.
Taylor, Jas., & Muller, S. N., Carpet, 122.
Taylor, John, Wool, 183.
Taylor, Mrs. Richard, Table mat, 155.
Taylor, N. & G., Co., Tin plate patterns, 59.
Taylor, R. F., & Son, Overcoat, 189.
Taylor, Robert, Trunks, 189.
Taylor, Robert, & Co., Crucibles, 54.
Taylor, S. T., Cutter, 124.
Taylor, T., Reflectors, 138.
Taylor, T. G., Nevada, 13.
Taylor, W. O., & Son, Chairs, 111.
Tchelder, Government of, Borax, 291.
Tchiko, Lace, 301.
Tchistiakoff, B., Hats, 317.
Tchitcheleff, J., Jewelry, 318.
Tchobano, Dimitri, Wooden mould, 305.
Tchorbadji Serkis, Bag, 297.
Tchoula Cheyfi, Cloth, 293.
Tdomane, Government of, Galena, 96.
Technical Elementary Schools, Work, 362.
Tecumseh Iron Co., Iron, etc., 48, 57.
Tecumseh Mills, Printing cloths, 118.
Tecumseh Works, Brine, 74.
Teftif Oglou Moussa, Wool, 314.
Tegetmeyer, F., Engravings, 348.
Tehezi Agha, Blanket, 296.
Tei-Ami Tegiyo, Fans, 247.
Teixeira, Carlota Matilde, Embroideries, 288.
Teixeira, José Rodrigues, Silver jewelry, 288.
Teixeira, M. A., Thread, 285.
Tejada, A., Open work, 277.
Telegraph Construction & Maintenance Co., Cable, 339.
Telegraph Supply Mfg. Co., Porcelain, 202.
Telhadella Mining Co., Ores, 94.
Tellini, Dario, & Co., Olive oil soap, 231.
Tellini, Vincenzo, Olive oil, 231.
Tello, J., Embroidery, 258.
Temio Petcha, Silk, 297.
Temno Petcha, Silk, 297.
Templeton, J. & J. S., Curtains, 150.
Templeton, James, & Co., Carpets, 150.
Temprado, R. F., Handkerchiefs, 281.
Ten Eyck Axe Mfg. Co., Axes, 137.
Tennant & McLachlan, Penmanship, 341.
Tenner, Apparatus, 319.
Tenner, A. B., Wooden rolling blinds, 202.
Tennessee Educational Dept., Books, 323.
Tenorio, F. D., Soap, 283.
Terada, G., Pipes, 247.
Teramura, S., Embroidery, 246.
Ter-Davydoff, Jugs, 315.
Ter Horst, J. H., Linen, 220.
Terrades & Vallmana, Sulphur, 278.
Terramola, D., Salt, 255.
Terrilon, L., Shawls, 195; Handkerchiefs, 196; Trimmings, 197.
Terriza José, Galena, 87.
Terwilliger & Co., Safes, 112; Locks, 141.
Terzibalion, H. A., Coins, 371.
Teske, C., Regulator, 330.
Testi, U., Dentals, 235.
Tetlow, Henry, & Bro., Perfumery, etc., 105.
Tetoullah, D., Silk, 297.
Tetoullah Effendi, Prunes, 312.
Teufel, J. J., Instruments, 136.
Teugels, E. M., Furniture, 216.
Teyler's Foundation, Archives, 360.
Thackara, Buck, & Co., Brackets, 114.
Thalheimer & Hirsch, Shirts, 124.
Tharsis Sulphur & Copper Co., Ores, 88.
Thatcher Heating Co., Furnaces, 374.
Themeli, N., Sponges, 310.
Themudo, Maria Eduardo, Lace, 288.
Théophani, N., Seeds, 307; Wheat, 309; Cheese, 310; Wool, 313; Lupine, 314; Violin, 371.
Théophasaki Ysiako, Wine, 313.
Theorell, A. G., & Sörensen, P., Meteorograph, 363.
Theresa de Jesus, Needlework, 288.
Thevenot, F., Cutlery, 199.
Thibault, Lanthier, & Co., Furs, 189.
Thibouville, L., Instruments, 345.
Thie, W., Instruments, 351.
Thieben, E., Shawls, 208.
Thiellay, Eugene Henry, Perfumery, 145.
Thierry, Adolph, Tables, 112.
Thierry, China, 193.
Thinet, Cutlery, 199.
Thirion, C. H., Tables, 344; Tablets, 346.
Thiry, jr., Cage, 194; Locks, 200.
Thole, B., Book case, 111.
Thomachot-Thuillier, Shears, 199.
Thomar Royal Weaving Co., Yarns, etc., 285.
Thomas, Chronometric instruments, 346.
Thomas, Linen, 294; Silk, 298; Ornaments, ladies' belt, 302.
Thomas, A. W., Bustle, 124.
Thomas Bros., Chemicals, 192; Raw silk, 196.
Thomas, C. F., Index, 132; Skin, 165.
Thomas, D. H., Maryland, 12.
Thomas, F., Raw silk, 196.

Thomas, H., Fabrics, 298.
Thomas Iron Co., Ore, 47; Iron and flux, 57; Drawings, 334.
Thomas Isaac, Van, Silk, 297.
Thomas, Joel, Ruches, 126.
Thomas & Joerns, Vases, 374.
Thomas, Roberts, Stevenson, & Co., Stoves, furnaces, 374.
Thomas, W. H. B., Minerals, 50.
Thompson, Albert, Paint, 104.
Thompson, C., Perambulator, 154, 383.
Thompson, C. C., & Co., Pottery ware, 108.
Thompson, D. M., Photographs, 335.
Thompson, E. O., Garments, 124.
Thompson, G. F., & Sons, Lead, 188.
Thompson, J. H., Judge, Gr. XXIV., 18.
Thompson & Weizmann, Tobacco, 172.
Thompson, W. S., Stone, 53.
Thomson, J. S., Inks, 105.
Thomson, Robert, Bark, rulers, etc., 171, 172.
Thomson, Sir W., Judge, Gr. XXV., 19.
Thonet Bros., Furniture, 208.
Thonet, F., Judge, Gr. VII., 16.
Thorn, C., Carriages, etc., 154, 383.
Thorn, Stephen S., Brass, 141.
Thornber, U., Wines, 168.
Thorne, G., Cocoons, 159.
Thorne & Greenwell, Almanac, 179.
Thornton, E., Stove, 148.
Thornton, S., & Sons, Fabrics, 116, 120.
Thorpe, Mrs. W., Painting, 174.
Thrum, T. G., Book, 250; Stamps, 251.
Thudium, C. A., & Son, Jackets, 124.
Thun, Count v. K., China, 207.
Thurston, R. M., Engineering exhibit, 335.
Thwaits, Miss F. C., Drawings, 170.
Tibbals, L. P., Carriage, 381.
Tiburcio, Escabias, Salt, 270.
Tidström, C. W., Account books, 227.
Tiebout, W. & J., Brass, 141.
Tiefenbrunner, G., Citherns, 350.
Tiemann, G., & Co., Instruments, 135.
Tiffany & Co., Silverware, 112; Jewelry, 127; Stationery, 130; Watches, 330.
Tigour, A., Wool, 314.
Tikhomandritzky, N., Embroideries, 318.
Til, C., Caps, 317.
Tilburg Woolen Mfg. Co., Flannels, 220.
Tileston & Hollingsworth, Paper, 131.
Tillinghast, Mason, & Co., Jewelry, 127.
Tillson, Davis, Granite work, 52.
Tilp, E., Plans, 352.
Timasheff, A., Silk, 317.
Timbrell, A., Cocoons, 161; Silkworms, 163.
Timiriazeff, D., Atlas, 373.
Timms Bros., Wools, 165.
Tims, Wm., Homœopathic pellets, 134.
Tindal, E. & A., Wool, 159.
Tinogasta, Prov. Sub-com. of, Ores, 83.
Tinworth, George, Stoneware, 146.
Tippan, M. W., New Hampshire, 13.
Tiraki Selim Agha, Fabric, 293.
Tirapegui, R., Mexican saddle, 260.
Titodi, G., Music, 365.
Tittel & Krüger, Wools, 203; Emb'y, 204.
Titus, E., & Sons, Flannels, 121.
Tivoli Mine, Coal, 67.
Tjeenk-Willink, H. A., Balls, 360.
Tjeenk Willink, W. E. J., Drawings, 361.
Tletora, T., Wine, 313.
Tobella & Argila, Manure, 270.
Tobias, J. F., Judge, Gr. IV., 16.
Tobin, Jos. F., Bone, 128.
Tobique Gypsum Co., Gypsum, 73.
Tobler, Drawings, 356.
Tobler, Ulr. & A., Embroidery, 213.
Todai-riyo, Lighthouse Department, Photographs, 248.
Todd, A. M., Oils, 103.
Toekomst Society, Reports, 359.
Toggenberg Reformatory, Reports, 357.
Toin Peh Mei, Porcelain, 241.
Toiray, M. G., Stationery, 198.
Toiray, Maurin, Inks, 193.
Toit, A. L. du, Grapes, 170.
Tokatlou, Tobacco, 309.
Tolhurst, Geo. E., Models of gold ingots, 63.
Toll, Chas., Silex, 54.
Tolley, J. & W., Guns, 152.
Tolox, Corporation of, Waters, 92.
Tolrá & Co., José, Cretons, etc., 273.
Tomás, Antonio R., Barytes and lime, 90.
Tomei, A. F., Pavement, 233.
Tomita, S., Gauze, 246.
Tomochordo, P., Wine, 313.
Tompkinson & Adam, Carpets, 150.
Tondeur & Lempriere, Photographs, 182.
Tong Chock-hing, Porcelain, 241.
Tong Chou Hing, Ink, 242.
Tonsend, C. T., Phaeton, 381.
Tootchana, Gov. of, Opium, 304; Rice, 308.
Tooth & Cran, Sugar, 180.
Topart Bros., Pearls, 198.
Topchin Mulasin, Oats, 307.
Tophna, Lace, 301.
Topliff & Ely, Bow, 379.
Topographical Bureau, Maps, 373.
Topowz Oglou, Coal, 96.
Toran Costa, Wheat, 307.
Torchon, Ch., Pharmacies, 192.
Torelli, J., Crockery, 233.
Torelli, L., Sculpture, 235.
Torlades, O'Neil, Salt, 283.
Tornberg, O., Boots, 226.
Toronto, Corporation of, Photographs, 342.
Toronto Gold Mining Co., Pyrites, 70.
Toronto Tweed Co., Flannels, 189.
Torras Bros., Paper, 278.
Torre, J., Cloths, 274.
Torre, M. E. la, Fabric, 263; Liquor, 264.
Torrell, O. M., Judge, Gr. XXVIII., 19.
Torrelló & Co., Prints, 273.
Torrent, E. G. de, Embroidery, 258.
Torres, A. B. de, Lozenges, 255.
Torres, F. L., Paints and varnishes, 283.
Torres, N., Flour, 268.
Torres Novas National Spinning & Weaving Co., Cotton fabrics, 285.
Torreviega, Salt, 270.
Torrey, D., Bureau of Transportation, 10.
Tössthal Railway, Surveys, 356.
Tostrup, J., Silver work, 230.
Tosty, G., Leather, 310.
Touchard, E., Ornaments, 194, 198.
Tountcha Litché, Wine, 313.
Toup Hané c Hadji, Chain, 302.
Tourinho, F. A. M., Magnetic gold, 82.
Touron, E., Problems, 343.
Tousseano, Vinegar, 313.
Toutous, Gov. of, Nitre, 291; Gums, 306; Cereals, 308.
Tower, J. J., Planes, 138.
Tower, W. F., & Bro., 380.
Towle Mfg. Co., Bell punches, 382.
Town Council of Winterthur, Plans, 356.
Towne, A. N., California, 11.
Towns, R., & Co., Kerosene shale, 64.
Towns & Co., Kerosene shale, 64.
Townsend, C. T., Phaeton, 380.
Townsend, G. W., Slips, 327.
Townshend, Mrs. M., Clay, 73.
Toy, Bickford, & Co., Fuses, 106.
Toyo-oka-ken, Local Govt., Straw work, 247.
Traber & Aubery, Iron ores, 49; Iron, 59.
Traber, J., Limestone, 53.
Tracy, J. L., Missouri, 13.
Trail, W. J. L., Dakota, 12.
Trainer, D., & Sons, Cotton yarns, etc., 117.
Tramon, T., Boots, 257.
Tramontino, Cocoons, 236.
Transatlantic Steamship Co., Model, 345.
Transtagana Mining Co., Ores, 94.
Trapadoux, A. L., Bros., & Co., Foulards, 196.
Trapaga, Torriello, & Co., Yarns, 265.
Trasel, E. G., Pails, 143.
Tras-os-Montes Mining Co., Ore, 94; Tin, 95.
Travaglino, P. J. & W. J. P., Silks, 220.
Travanca, A., Argil, 82.

Travis, J. L., Brass, 378.
Trayser, Ph. I., & Co., Organs, 350.
Trayvou, B., Scales, 344.
Treacy, J., & Co., Ale, 164.
Trebitisch, A., Meerschaum articles, 210.
Trebizond, Government of, Galena, 96.
Treco, P. A., Shells, 173.
Tréfousse & Co., Gloves, 197.
Trell, Miguel del, Calamine, 87; Marble, 89; Gypsum, 91.
Treloar, Wm. A., Minerals, 83.
Tremain, Chas., Cement, 54; Barrels, 143.
Tremont & Suffolk Mills, Flannels, 117.
Tremouroux, N. & J., Bros., Utensils, 216.
Trent Brothers, Chiccory, 156.
Trentefil, Miss, Pants stuff, 295.
Trenton Lock & Hardware Co., Locks, 140.
Treolar, G. A., Shoes, 257.
Tress & Co., Hats, 151.
Treuendt, E., Books, etc., 348.
Trichaud, A., Tiles, 193.
Trigg Furnace, Ores, 49; Iron, 59.
Trimingham, J., Bonnets, 174.
Trindade, Joaquin Antonio, Gaiters, 287.
Trinidad, Government of, Gutta-percha, 184.
Trinidad, Maria, Embroidery, 281.
Tripp, J. P., Quartz, 166.
Triumph Truss Co., Truss, 136.
Trojani, G. B., Bas-relief, 232.
Trommsdorff, H., Chemicals, 201.
Tropic Furnace Co., Ores, 48; Iron, 58.
Trost, J., & Co., Piano, 355.
Trotomastoropolani, C., Counterpane, 301.
Trouette & Blampied, Wines, 164.
Trout, W. H., Drawings, 342.
Troy Cotton & Woolen Manufactory, Printing cloths, 118.
Trubia, National Factory of, Coal, 89; Argil, 91; Iron, etc., 92; Bricks, 272; Carriage, 278; Files, 279.
Trudeau, P., Gas burner, 188.
Truffy, Toys, 198.
Tryon, E. K., jr., & Co., Rifles, etc., 134.
Tschataldja, Olives, 307.
Tsubaki Yoshi, Sendai, Silk, 246.
Tsuboi, C., Crapes, 246.
Tsuji, Ch., Toilet service, 245.
Tsuji Katsuzo, Porcelain, 249.
Tsurugaken, Local Government of, Silk, 246; Paper, 247.
Tucci-Savo, B., Olive oil, 232.
Tucher, T., Arrowroot, 174.
Tuchfarber, F., & Co., Cards, 140.
Tucker, Carter, & Co., Bagging, 118; Wire ropes, 142.
Tucker, Geo., Tripoli, 54, 139.
Tucker, Hiram, & Co., Brackets, 114.
Tucker, Thos. S., New Mexico, 13.
Tucuman, Provincial Commission of, Limestone, 84; Sea salt, 255; Cups, 256; Wool, 257; Leather caparisons, etc., 260.
Tudicar, H., & Co., Bricks, 256.
Tufts, J. W., Fountains, 55.
Tula, Nabor, Copper ore, 83.
Tullesen, P., Braiding machine, 224.
Tunxis Mills, Yarns, 121.
Turner, Andrews, & Co., Pocket books, 129.
Turner, Archibald, & Co., Elastic fabrics, 150; Bandages, 153.
Turner, Chas., & Son, Varnishes, 145.
Turner, G., & Co., Hammock, 147; Tent, 148; Canteen, 151.
Turner, Henry A., & Co., Sofa, chairs, 110.
Turner, John, Yarns, 121; Cords, 123.
Turner, R., & Co., Needles, 151.
Turner & Seymour, Hardware, 142.
Turners' Sample Office, Cork articles, 209.
Turnwald, C., Gloves, 209.
Tuscarawas Coal & Iron Co., Ore, 50; Iron, 56.
Tuschen de Vrienden Plantation, Rum, 751.
Tuttle & Bailey Manufacturing Co., Ventilators, screens, 375.
Tuxen, Louis von, Leather goods, 228.
Tweed, H., Massachusetts, 12.
Twining & Schiedt, Fluid extracts, etc., 101.
Tygert's Valley Mining Co., Ore, 49.
Tyndale, H., Judge, Gr. Il., 15.
Tyrolese Glass Painting Mfy., Glass, 207.
Tyrrell, J. de F., Ores, 67.

U.

Uddeholm Company, Iron ore, 78.
Uddeholm Stock Co., Iron, 79; Hand tools, hardware, 227.
Uebelacker, L., Toys, 205.
Uitvlugt Plantation, Sugar, 175.
Ujhely & Co., Candles, 207; Wax, 211.
Ulbrich, F., Imitation stones, 209.
Uleeschouuer, Bellefroid, & Co., Marble, 90.
Ullathorne & Co., Thread, 149; Findings, 153.
Ullmann, J. F., Laces, 209.
Ulmusrati Ahmed, Brimstone, 97.
Ultramarine Works, Chemicals, 201.
Umann, John, Flagon, glass articles, 207; Paper weights, 210.
Underberg, A. H., Bottles, 202.
Underwood, T., Paints, 157.
Unge, V. T., Apparatus, 363.
Unger, F., Portemonnaie, 210.
Unger, G., Periodical, 372.
Union County Mfg. Co., Wheels, 379.
Union Furnace, Ores, 49; Iron, 58.
Union Hardware Co., Skates, 138.
Union Iron Co., Ores, 50, Beams, 55; Model, 335.
Union Manfg. Co., Doeskins, 120; Hinges, 141; Wooden ware, 377.
Union Mercantile Co., Cotton goods, 253.
Union Metallic Cartridge Co., Shells, 133.
Union Mining Co., Coal, 51, 71; Bricks, 107.
Union Porcelain Works, Porcelain ware, 108.
Union Prospectors Co., Quartz, 166.
Union Steel Screw Co., Steel, 141.
Union Stone Co., Articles in artificial stone, 56.
Union Wadding Co., Cotton wadding, 117.
United Cutters' Soc'y, Gentlemen's goods, 196.
United Piano Makers, Pianos, 333.
United Railroads of Switzerland, Plans, 356.
United States Bunting Co., Bunting, etc., 120.
United States Cartridge Co., Cartridges, 133.
United States Centennial Commission, 9.
United States Corrugated Elbow Co., 56.
United States Corset Co., Corsets, 125.
United States Piano Co., Piano, 333.
United States Publishing Co., Books, 327.
United States Salicylic Acid Works, Acid, 102.
United States Soapstone Furnace Co., Furnace, 374.
United States Soapstone Mfg. Co., Steatite, 55; Gas tips, 115; Pencils, 130.
United States Spring Bed Co., Beds, 111.
United States Steel Shear Co., Shears, 139.
Université Laval, College work, 342.
University Publishing Co., Books, 327.
Unterstrass Modeling School, Work, 353.
Upham, Saml. C., Extracts and perfume, 105.
Urbina, M., Hampers, 277.
Urech, E., Embroidery, 213.
Uria Pinilla, Iron ores, 89.
Uria & Pinilla, Stone, 91; Iron, 92.
Urmeneta, José Tomas de, Wines, 262.
Urmenta & Errazuriez, Copper ores, 85.
Urmston, J., Hubs, 379.
Usher, R., Rhubarb, 153.
Usine Hassan, R., Chandeliers, 293.
Uskup, Government of, Aluminous earth, 96; Stockings, 300; Bellows, 303; Wheat and rye, 308; Cotton, 313.
Usni, H., Felts, 295.
Uson, A., Pipes, 281.
Ustick, S., Car model, 382.
Utica Steam Cotton Mills, Sheetings, 117.
Utschneider & Jaunez, Cement, 240.
Utsumi, K., Vases, 245.
Uxbridge Woolen Co., Cassimeres, 120.
Uyemura, S., Lacquered ware, 245.

V.

Vachette Bros., Locks, 200.
Vacquerel, P. E., Decalcomanie, 193, 198.
Vafiadi Giorki, Wine, 313.
Vagoonin Bros., Paper, 319.
Vahey, W., Collars, 191.
Vaill, E. W., Folding chairs, 110.
Vaisse, Martin, & Co., Brick, 371.
Vajani, P., Curtains, 233.
Val, A., Cloth, 275.
Valadia, C., Paper, 277.
Valah, V., Lentils, 309.
Valania, J., Machines for confectioners, 210.
Valby, Capsules, 199.
Valcarcel, Venancio, Olives, 263.
Valdemoro, Juan Francisco, Iron, 89, 92.
Valdes, E. & C., Stones, 84; Burnt brick, 256; Boots, 257; Camomile, 259.
Valdes, H., Lasso, 259.
Valdes, Nicasio, Lime, 84.
Valenca, Domingo Fernandes, Hats, 287.
Valensi, M., Pottery, 239.
Valentin, M. J., Jewelry, 254.
Valentine & Butler Safe & Lock Co., Safes, 112; Locks, 142.
Valentine & Co., Varnishes, 104.
Valentines & Co., Iron, 56.
Valentini, G., Medicines, 235.
Valenzuela, M., Teeth, 279.
Valenzuela, P. N., Leather, 262.
Valkenberg & Schoen, Wool, 203.
Vallarta, L. Y., Woods, 268.
Valleau, W., jr., Gold leaf, 136.
Vallés, J., & Sons, Crystal, 272.
Vallini, N., Paper, 234.
Vallongo Slate & Marble Quarries, Slate, 94; Tables, 284.
Valton, F., Judge, Gr. I., 15.
Van Aken, L., Carriages, 218.
Van Alen & Co., Nails, 141.
Van Bellingen, J., Son, Cassimere, 217.
Van Bellingen, J. H., & Suremont, Silk tissues, 217.
Van Bergen, A. H., Tiles, 220.
Van Calker, P. W., Glue, 220.
Van Carter, J. A., Wyoming, 14.
Vancouver Coal Co., Building sandstones, 72.
Vancouver Mining Co., Coal, 71.
Van Damme Bros., Cloth, 216.
Vandamme, P. J., Engravings, 217.
Van de Loo, J. P. H., Plaster, 221.
Van den Bergh, N. L. J., Cologne, 220.
Vandenbos-Poleman, G., Shoes, 217.
Vandendaele-Rigot, C., Syrups, 218; Steam machine, 219.
Van der Burgh, A. R. & P., Marble, 221.
Van der Burgh, M., Wood, 221.
Van der Lugt, Furniture, 220.
Van der Molen, A., & Co., Sculpture, 359.
Vanderrest, G., Machine, 216.
Van der Velden, L., Glue, 215.
Van de Wynckele Bros. & Alsberge, Linen thread, 216.
Vandezande-Goemaere, Lace, 217.
Vanduzen & Tift, Bells, 141.
Van Ginderdeuren, Wood carvings, 216.
Van Gounden, Young, & Drumm, Marble, 52.
Van, Government of, Nitre, 291; Calicoes, 294; Carpets, 295; Belt, 300.
Van Havermaet, H., Furniture, 359.
Van Henkelom, H. C., Stone, 220; Machine screws, 221.
Van Holsbeck, H., Books, 359.
Van Laer, Guillaume, Dyer's Guide, 215.
Van Leer, B., Hangings, 220.
Van Norman, Judge, Native silver, 70.
Vanoutryve, F., & Co., Damask, 195.
Van Skelline, Theo., Motto paper, 133.
Vant, A. B., & Cheney, H. O., Washer, 377.
Van Verschur & Van der Voort, Stones, 77.
Van Vliet, W. F., Chairs, 220.
Van Wagoner & Williams, Hinges, 141.
Van Wickle, Stout, & Co., Coal, 51.
Varach, Government of, Iron, 97.
Vargas, Elas, Wines, 262.
Various Provinces, Direction of the Public Works of, Building materials, 95.
Various Towns, Benevolent Societies of, Mineral waters, 91.
Various Towns, Provincial Commissions of, Argil and clay, 91.
Vasali Borbo, Morocco, 310.
Vasconcellas, Jacintha P., Raw silk, 286.
Vasconcellas, Joas da Camara, Raw silk, 286.
Vasconcelles, José da Silva P., Damask, 287.
Vaskapoli, A., Sumac, 291.
Vasquez, Diego, Quicksilver ore, 88.
Vasquez, Gulias Francisco, Oxide of tin, 92.
Vasquez, Lucrecio, Emeralds, 83.
Vasquez y Lopez, M., Peroxide of manganese, 88.
Vasseur, Mrs. V., Laces, 197.
Vassil, Postak, Cloth, 295.
Vassili, P., Silk cloth, 298.
Vassilieff, J., Maps, 373.
Vassiliki, Madame, Laces, 301.
Vatterlein, J., Gauges, 138.
Vaucher, L., Animal oil, 212.
Vaud, Dept. of Public Works, Drawings, 356.
Vaudoise Society for Public Utility, Reports, 357.
Vaughan, W. R., Trusses, 135.
Vauthier, Mrs., Clothing, 196.
Vauthier, Sl., & Sons, Tools, 358.
Vcelicka, A., Gloves, 209.
Vecchietti, C., Green-weed, 233.
Vedernikoff & Mikailoff, Costumes, 318.
Veelo, P. J., Cloths, 220.
Veetman, J. A., Scarfs, 220.
Vega, Daniel de la, Petrifaction, 83.
Vega Grande, Count of, Oil, 271.
Vegetable Creek Co., Tin ingots, 64.
Vegis, Sculpture, 237.
Veith, J., Publications, 348.
Velasco Bros., Lead bars, 92.
Velasquez, Mrs. L., Embroidery, 266.
Velazco, J. J., Flour, 262.
Velhagen & Clasing, Religious books, etc., 348.
Velho, Agostino F., and others, Ore, 94.
Velings & Co., Iron wire, 218.
Veloso, Pascal, Galena, 93.
Veltman, J. A., jr., Scarfs, 220.
Vely Bey, Socks, 299.
Venturini, Luigi, Strings, 365.
Vera Bauton, Maria, Baskets, 280.
Vera Cruz, State Government of, Wood, 267; Coffee, 268.
Verchilli y Marqués, F., Sandals, 276.
Verdé-Delisle Bros., Lace, 217.
Verdé-Delisle & Co., Lace, 197.
Verderau, L., Shirts, 276.
Vergne & Chose Bros., Instruments, 199, 200.
Vergnies, O. de, & Sisters, Lace, 217.
Verhaar, A. T., Casts, 360.
Verin, Corporation of, Mineral waters, 92.
Verrocy & Van Heusde, Dyes, 220.
Versailles Plantation, Sugar, 175.
Versé-Spelmans, B., Leather, 218.
Verviers, Doings of Popular Evening Parties of, Publications, 359.
Vessiere-Paulin, J. A., Clothing, 196.
Vester, Table, 292; Olive wood, 302; Desk furniture, 304.
Vesuvius Furnace, Ore, 48; Pig iron, etc., 57.
Vettler, J., Wines, 164.
Vianna, Antonio Martius, Plated shoes, 287.
Vianna do Castello, Direction of the Public Works of, Building materials, 94.
Viard, F., Perfumery, 193.
Vicat, Joseph H., Insect powder, 192.
Vice, G., Saltpetre, 169.
Vicedo, J., Cloth, 274.
Vico, V., Olives, 264.
Victor Navarro, P., Silks, 275.
Victoria, Advisory Board of, Indian goods, 342.
Victoria, Bank of, Notes, 341.
Victoria, Collection of minerals, 65.

Victoria, Commissioners for, Nuggets, 65, Crayons, 160; Silk cocoons, 161; Photographs, 162; Water fowl, 163; Cotton, 164; Fruits, 165; Music, 341.
Victoria, Educational Department of, 341.
Victoria Institute for Poor Girls of the Canton of Berne, Report, 358.
Victoria, J. G., Earthenware, 284.
Victoria Ladies' Sericulture Co., Silk, 161.
Victoria, Sub-commission of the Dept. of, Pottery, 256.
Victoria, Surveyor-General of, Photography, 162; Maps, 341.
Victorian Asylum and School for the Blind, Mats, 341.
Victorian Asylum for Deaf and Dumb, Photographs, 341.
Vidago Mineral Waters Co., Waters, 95.
Vidal, B., Cases, 281.
Vidal, J. M., Linens, 294; Silk, 297; Embroidery, 301; Old fire arms, 304.
Vidal, M. A., Ashes, 255.
Vidal, R., Handkerchief, 277.
Videla, J., Leggings, 257; Harness, 259.
Videla, R., Embroidery, 258.
Vie, Garnier, & Co., Pharmacy, 199.
Viego, I., Blankets, 274.
Vieira, A. J., Soap, 283.
Vienna Building Association, Plans, 351.
Vienna, Com. in, Various products, 352.
Vienna, Municipality of, Photographs, 351.
Vigano, Francesco, Books, 365.
Vignal, C., Refrigerator, 377.
Vigneron, C., Insulator, 331.
Vignon, A., Clocks, 345.
Vigon, Braulio, Coal, 89.
Vigors, P., Native weapons, 169; Skins, 170.
Viguier, Boots, etc., 253.
Viguier, Figaro water, 193.
Viguier, H., Shoes, 254.
Vila, Francisco, Tin ore, 89.
Vila Janez, Francisco, Tin, 92.
Vila & Son, Paper, 277.
Vilaret, José, Carbonic water, 91.
Villa, Cav. Prof. Ignazio, Maps, 365.
Villa del Rio, Corporation of, Cloaks, 275.
Villafañe, Tristan, Galena, 83.
Villa Franca, Baron of, Peat, 82.
Villagalijo, Prov. Com. of, Alabaster, 90.
Villalba, Gregorio, Jet, 91.
Villalobos Brothers, Sulphate, 87; Lead, 92.
Villalon, E., Waters, 271; Hair, 277.
Villalonga y Perez, Antonio, Tripoli, 91.
Villamartin, Corporation of, Jasper, 90.
Villamarzo, T., Mats, 280.
Villamen, C., Bagging, 280.
Villanova, José Genaro, Earth, 88.
Villar Cagide, Joaquin S. M. de Abades, Steatites, 91.
Villar, J., Pharmaceutics, 271.
Villard & Co., Velvet, 196.
Villarmentero Board of Public Works, Crystallized gypsum, 90.
Villaroel, A., Various publications, 261.
Villaseca & Pniggene, J., Paper, 278.
Villeasante, F., Hats, 276.
Ville de Spa, Trophy furniture, 77.
Villen, J., Shoes, 276.
Villeneuve, J., & Co., Publication, 366.
Villeroy & Boch, Tiles, 202.
Villiers, A. B. de, Wines, 171.
Villiers, A. J. J., Red wines, 171.
Villiers, Miss de, Articles of flowers, 171.
Vincent Son, Black marble, 77.
Vincenzi, P., Corks, 235.
Vinci, M., Shoes, 234.
Vinet, Troviño, & Co., Acid, 271.
Vineyards, Direction of the, Wines, 313.
Vinogradova, A., Swans' down, 317.
Vinton, C., Bath, 378.
Vinton Furnace, Ores, 49; Iron, 58.
Vinuesa, Corporation of, Chamomile, 278.
Vinva, A. J., Salt, 283.
Violet, G., & Co., Soaps, 192.
Virgili, Angelo, Olive oil, 231.
Virginia Mineral Bureau, Minerals, 48.
Virolet & Durlach, Oil cloths, 119.
Virtue & Yorston, Books, 327.
Virtue, J. W., U. S. Commissioner, 9.
Vishniakoff, J., & Sons, Papier-maché, 318.
Vissoka, Government of, 293; Cases, 303.
Vista Alegre Porcelain Mfy., Porcelain, 284.
Vital, A., Rollers, 200.
Vité, François, Leather goods, 205.
Vitigudino, Corporation of, Manta, 275.
Vitry Bros., Cutlery, 199.
Vivas Asqueros, Antonio, Iron ore, 87.
Vives & Aspiroz, R., Flags, 272.
Vo Chon, Vases, 242.
Voeltzkow, G. W., jr., Picture frames, 202.
Voeltzkow, W., Picture frames, 202.
Vogel, F. C. W., Books, 348.
Vogel, G., Looking glasses, 202.
Vogel, H., Judge, Gr. XXVII., 19.
Vogel, M. B., Colors, 202.
Vogel, Sir Julius, Handbook, 156.
Vogts, F., & Co., Furniture, 202.
Voigtlaender & Son, Telescopes, 349.
Voisin, V. C., Fancy articles, 198.
Volante, Alessandro, Pamphlet, 365.
Volart Bros. & Conill, Fabrics, 273.
Völker, O., Furniture, 202.
Vollmer, G., Furniture, 111.
Volonia, Government of, Mineral water, 97; Soap, 291; Linen, 295; Pitch, 306; Maize, 308; Honey, 312; Wool, 314.
Volsteedt, P. J., Preserves, 170.
Volta Vivé, J., Fabrics, 275.
Volz-Bier, A., Jewelry, 204.
Von Bauer, O., Woolens, 208.
Von Baumhauer, E. H., Judge, Gr. IV., 16.
Von Harrach, Count, Glass articles, 207.
Von Heyden, F., Chemicals, 201.
Vorster & Grüneberg, Chemicals, 201.
Vorster, R. & H., Edge tools, 206.
Vosburg, J. S., Arizona, 11.
Vöslau Yarn Manufactory, Yarns, 208.
Voss, L., Books, 348.
Vossen Bros., Chemicals, 201.
Votkinsk Crown Iron Works, Iron, 98.
Vowohl Asphalt Works, Mastic blocks, 75.
Voyeikoff, D., Cloth, 317.
Vrana National High School, Work, 362.
Vrau & Co., Thread, 195.
Vraux & Co., Thread, 195.
Vreed-en-Hoop Plantation, Sugar, 175.
Vriesendorp, H. M., Oils, 220.
Vte Mondova, Oils, 270.
Vuiva Ferreira Campos, & Co., Galloons, 288.
Vulcan Match Mfg. Co., Matches, 225.
Vulcanite Jewelry Co., Jewelry, 127.
Vyse, Robt. H., Belting, 142.

W.

Wachsmuth, F. E., Pictures, 348.
Wada, Y., Indigo, 244.
Waddell, H., jr., Judge, Gr. VIII., 16.
Waddington, Wm., Brooms, 261.
Wade, J. M., Ornament on glass, 188.
Wadman, E., Vases, 241, 242.
Wadsworth Coal Co., Coal, 51.
Wagan, R. M., Chairs, 111; Rugs, 122; Fancy articles, 128.
Wage Kitei, K., Vases, 244.
Wagenmann, G., Tapers, 207.
Waggoner, Gifford & Co., Paints, 104.
Wagner Drug Milling Co., Refrigerators, 374.
Wagner, Franz, Bronze articles, 207, 210.
Wagner, G. W., Sleigh, 381
Wagner, H., & Debes, C., Maps, etc., 348.
Wagner, J., Stone, 53.
Wagner, R., Plates, 348.
Wagner, R. von, Judge, Gr. III., 15.
Wagner & Starker, Tiles, 202.
Wahl, Emil, Jewelry, 127.
Wahlström, S. Fr., Furniture, 225.

Waihee Plantation, Sugars, 251.
Waimanalo Plantation, Rice, 251.
Wakamatsu, R., Hats, 246.
Wakefield Earth Closet Co., 377.
Wakefield Rattan Co., Furniture, 110; Mats, 115, 143.
Walch & Sons, Almanac, 182.
Walcker, A. G., Bells, 345.
Walcker, F. F., & Co., Church organ, 350.
Walcker, W., Tents, 195.
Walcott & Campbell, Shirtings, 116.
Waldheim, R. von, Plans, 352.
Waldow, A., Books, 348.
Walén, Joh., Locks, 227.
Wales, W., Photomicrographs, 330.
Walker, A. R., Gas cooking stove, 160.
Walker, Evans, & Cogswell, Blank books, 132.
Walker, F. A., Chief, Bureau of Awards, 10.
Walker Glass Importing, Silvering, Mfg. Co., Mirrors, 113.
Walker, J., Soaps, 187.
Walker, J. R., Utah, 14.
Walker, M., & Sons, Gates, 115.
Walker, N. U., Sewer pipe, etc., 107.
Walker, R. F., Wheat, 180.
Walker, Renwicks, & Co., Gum, 156.
Walker, Tucker, & Co., Stamps, 130.
Walker, W., Traveling articles, 198.
Wallace, A. C., Canes, 173.
Wallace Bros., Roots, 134.
Wallace & Keller, Fancy articles, 127.
Wallace, S. J., Roofs, 378.
Wallenstadt Fancy Cotton Goods Mills, 212.
Wallgren, A. R., Clothing, 226.
Walling, H. T., Maps, 336.
Wallis & Co., Leather, 163.
Wallis, Jno. G., Sulphate of antimony, 48; Bullion, 55.
Wall's, Wm., Sons, Cordage, 142.
Walmsley, W. H., Microscopes, 331.
Walser, Conrad, Straw hats, 213.
Walshaw, Wm., Yarns, 122.
Walter Heywood Chair Co., Chairs, 112.
Walton Bros., Lanterns, 114.
Walton, E. S., & Co., Hardware, 140.
Walton, Maison, Bonnets, 126.
Wampanoag Mills, Printing cloths, 118.
Wampum Cement & Lime Co., Cement, 54.
Wamsutta Mills, Shirting, 116.
Wanamaker & Brown, Clothing, 125.
Wanamaker, J., Finance, 11.
Wanamaker, John, & Co., Clothing, 125.
Wander, G., Malt drops, 214.
Wandly, H., Stone, 73.
Wangaratta, Council of, Photographs, 162.
Wanskuck Co., Kerseys, 120.
War Dept. of Hawaii, Flag, 250.
Ward, Anthony, & Co., Silk thread, 150.
Ward & Co., Bear, 147.
Ward, L. B., Ore, 48; Iron, 57.
Ward, M. A., Wines, 264.
Ward, M., & Co., Leather, 151; Cards, 152.
Ward & Payne, Steel, 62; Tools, 153.
Warden, David, Kaolin, 64.
Warden & Oxnard, Petroleum, 103.
Wardlaw, J., Yarns, 189.
Wardle, S., Dentistry, 136.
Wardle, T., Teeth, 136.
Ware, J. M., Feathers, 104.
Warfield, W., Kentucky, 12.
Wargöns Stock Co., Paper, 227.
Waring, G. E., jr., Judge, Gr. XXII., 18.
Warlomont, Dr., Treatise, 360.
Warner Bros., Supporters, 125.
Warner, Robert, Books, 338.
Warner, Wm. R., & Co., Pharmacies, 101; Bottles, 108.
Warnock, J., & Co., Tools, 190.
Warren, H. W., Mississippi, 13.
Warren Manufacturing Co., Cotton goods, 117.
Warrenheip Distillery Co., Whisky, 164.
Warrington Wire Rope Works, Wire ropes, 62.
Warrnambool, Statistics, 341.
Warsaw, Municipality of, Plate, 373.
Warthorst & Co., Sandstone, 53, 54.
Wartpatrikoff Bros., Insect powder, 210.
Warwick, J. G., Coal, 51.
Warwick, Wm., Books, 189.
Washbourn, W. E., Lead ore, 63.
Washburn & Moen Mfg. Co., Wire, 56.
Washington Furnace, Ores, 48; Iron, 58.
Washington Mfg. Co., Printing cloths, 117.
Washington Mills, Worsted coatings, 121.
Washington Mills Emery Mfg. Co., 55.
Wasikili, Cloth, 294.
Wason Manufacturing Co., Cars, 382.
Wassel Fire Clay Co., Terra-cotta work, 107.
Wasson, J., Arizona, 11.
Watanabe, S., Cloth, 246.
Watch-Makers' Union, Watches, 354.
Watcombe Terra-Cotta Co., Statuettes, 145.
Waterbury Brass Co., Brass, 59.
Waterbury Button Co., Buttons, 128.
Waterhouse, Thomas, Hops, 262.
Waterloo Woolen Mfg. Co., Shawls, 121.
Waterloo Yeast Co., Yeast, 102.
Waterlow, Sir S. H., Judge, Gr. XIII., 17.
Waterman Bros., Petroleum, 71; Coke, 187.
Waters, E., & Son, Barrels, 143.
Waters, H., & Sons, Organs, 332.
Waters, J., Arrowroot, 158.
Waterston, G., & Son, Wax, 152.
Wateya, G., Tea sets, 245.
Watkins, W. B., Telegraph, 332.
Watrigant, A., Shoes, 217.
Watson, A., Fleeces, 165.
Watson, Brock, Fancy articles, 127.
Watson Bros., Flour, 158.
Watson, J. C., Judge, Gr. XXV., 19.
Watson, J. J., Strings, 333.
Watson, J., & Son, Safes, 112.
Watson Manufacturing Co., Iron, 59.
Watson & Patterson, Hams, 164.
Watson, Richard H., Extracts, 106.
Watson & Son, Furniture, 147.
Wattine, Ch., & Co., Draperies, 195.
Watts & Co., Apparatus, 330.
Watts, E., Trunk, 378.
Watts, I., Judge, Gr. VIII., 16.
Waumbeek Co., Flannels, 121.
Wauregan Mills, Cotton goods, 116.
Wauters-de-Busscher, Cordials, 219.
Weare, Bros., & Co., Stove, 375.
Wearne, Capt., Galena, 71.
Weaver, J. B., Cologne, 106
Weaver, M. H., Scales, 330.
Weaver & Pennock, Lavatory, 378.
Webb, Edward, & Sons, Hair cloth, 150.
Webb, John R., Sleigh, 191.
Webb, Robert, Stove polish, etc., 54.
Webber, S., Judge, Gr. VIII., 16.
Weber, A., Pianos, 333.
Weber & Co., Pianos, 342.
Weber, J., Wine, 164.
Weber, J. J., Diaries, etc., 348.
Weber, O., & Co., Jewelry, 204.
Webley Bros., Woolen goods, 155.
Webley, P., & Son, Revolvers, 152.
Webster, G., Bible, 342.
Webster Mills, Jute bagging, 118.
Webster, S., Feather tippet, 258.
Wedel-Jarlsberg, F., Compasses, etc., 364.
Weerth, de, & Co., Cloth, 203.
Weetamoe Mills, Printing cloths, 118.
Wegeler, J., Judge, Gr. IV., 16.
Wehrle, Em., & Co., Clocks, 349.
Weichl, M., Horseshoes, 191.
Weidmann & Greppo, Silks, 123.
Weidner, J. L. & P., Chemicals, 202.
Weigel, T. O., Books, 348.
Weigert, M., Judge, Gr. IX., 16.
Weigert & Co., Furniture plushes, 203.
Weigt, T., Hats, 317.
Weineck, Ignaz, Perfumery, 207.
Weintroub, Paul, Olive wood, 127.
Weir, S. F., Judge, Gr. XXVII., 19.
Weishaupt, C. M., & Sons, Jewelry, 204.
Weishaupt & Fleig, Instruments, 349.

Weiskopf, E., Lenses, 331.
Weiss Bros., Cloths, 203.
Weiss & Grohmann, Linen thread, 208.
Weissenbach, W. C. E., Water power, 356.
Weisser Hadji, Cereals, 308.
Wekmann, M., Hosiery, 317.
Welch & Andres, Instruments, 331.
Welch, D. J., Montana, 13.
Welch, E. N., Mfg. Co., Clocks, 330.
Welch, Margetson, & Co., Rugs, 150.
Weld, W., Farmers' Advocate, 342.
Weldon, Dana, & Co., Supporters, 124.
Weldon, L., Alternate, 9.
Wellauer, J., Report, 357.
Wellenberger, J., & Ganter, Organ, 333.
Wellington Mining Co., Coal, 71.
Wellmann, Fr., Cutlery, 206.
Wellock, J., & Co., Waterproof cloth, 149.
Wells, C. B., Sandstone, 53.
Wells & Co., Window fastener, 188.
Wells & Hope Co., Signs, 140.
Wells, S. R., & Co., Books, 327.
Wells, W., Clay, 73.
Wellston Coal & Iron Co., Iron, 58.
Wellston Twin Furnaces, Iron ores, 48.
Welsh, John, Presd't Board Finance, 10.
Welsh & Lea, Bolts, 380.
Welsh, Miguel, Limestone, 84.
Welte, M., & Sons, Orchestrion, 350.
Wemick, J., Carriage, 383.
Wenck & Briesen, Parlor fountain, 105.
Wenck & Co., Perfumes, 105: Atomizers, 108.
Wendberg & Co., Ironwork, 191.
Wendrich & Son, Terra-cotta vases, 223.
Wendt, Frantz, Rye, 224.
Wendt, J. M., Inkstand, 167.
Wengström, J. O., Construction, 226.
Wentworth, C. B., & Co., Carpet lining, 122.
Wentworth, C. H., Carriages, 381.
Wentworth, Geo. E., Florida, 12.
Wentzel, Models, 352.
Werner, C. O., Bone oil, 225.
Werner, Itschner, & Co., Silk ribbon, 122.
Werner, J., Men's clothing, 208.
Werner & Schumann, Paper letters, 205.
Wertheim, Baron F., Tools, 210.
Wertheimer, J., Fans, 210.
Wesely, V., Boxes, 210.
Wessell, Nickel, & Gross, Piano, 333.
Wesson, Frank, Rifles, 133.
West, A. M., Mississippi, 13.
West Bourke Pastoral & Agricultural Society, Wheat, 163.
West Canada Mining Co., Copper, 70, 74.
West Cumberland Iron & Steel Co., Ores, 61.
West, C., & Sons, Petroleum, 103.
West, J. R., Judge, Gr. VI., 16.
Westbrook Mfg. Co., Cotton duck, 116.
Westcott, J. S., & Wisendunger, I., Quartz, 166.
Westerberg, Jefferson, & Co., Papers, 133.
Westerlund, A. F., Peat, 78.
Westermann, G., Books, 349.
Western Electric Mfg. Co., Instruments, 331.
Western Meat Preserving Co., Meats, 164.
Western Reserve College, Antiquities, 328.
Western Reserve Historical Society, 329.
Western Union Telegraph Co., Apparatus, 332.
Westernhagen, A., Essences, 280.
Westervick Match Factory, Matches, 225.
Westfehling, J., Catalogue, 358.
Westland, C. O., Stove, 374.
Westland Committee, Woods, 156.
Westmoreland Coal Co., Coal, 51.
Weston, J. A., New Hampshire, 13.
Westphalian Union Joint Stock Co., Wire, 75.
Westport Mfg. Co., Batts, 116.
Wethered, E. R., Hammock, 147.
Wetherill & Bro., Paints, 104.
Wetherill, J. P., Finance, 11.
Wetteren, M. van, Magnets, 361.
Wexelburg & Co., Elbows, 188.
Weybosset Mills, Cassimeres, 120.
Wharton, G. J., Virginia, 14.
Wharton, J., Ores, 47; Nickel goods, 59.
Wheeler, D. H., Nebraska, 13.
Wheeler, Edmund, Specimens, 339.
Wheeler, M., Chronometer, 330.
Wheeler, N., Connecticut, 11.
Wheeler, W. F., Disinfectants, 115.
Wheeling Hinge Co., Hinges, 141.
Whelpley, J. A., Skates, 190.
Whipple, H. J. P., Door knob, 141.
Whitaker & Skirm, Nails, 141.
Whitall, H., Planispheres, 321.
Whitall, Tatum, & Co., Glassware, 108.
White, A. D., Judge, Gr. XXVIII., 19.
White, C. A., Celluloid, 136.
White, C. B., Gr. XXIV., 18.
White, Chas. T., & Co., Drugs, 102.
White, D., Safety hook, 162.
White, G., Wines, 168.
White, F. R., Wool, 159.
White, H. A., Stovepipe damper, 188.
White, John & James, Potash, 144.
White Lead & Iron Paint Stock Co., 215.
White Mfg. Co., Carriage trimmings, 382.
White, Otis C., Head rests, 110.
White, Payson, & Co., Textile fabrics, 122.
White, R. T., & Co., Batts, 116.
White, S. S., Teeth, 136; Telegraph, 332.
White, T. R., Sandilene, 139.
White, W., Axes, 137.
White, W. G., Safe, 147.
Whitehead, Isaac, Painting, 161.
Whitehead, J. R., Wyoming, 14.
Whitehead, T. J., Furnace, 375.
Whitehead & Turner, Brushes, 190.
Whitelaw, E. H., Quartz, 166.
Whiteside, H., & Co., Beds, 188.
Whitfield, F. E., Yarns, 116.
Whitier, C. E., Massachusetts, 12.
Whiting Paper Co., Fine papers, 131.
Whiting, Wm. F., Massachusetts, 12.
Whitney Arms Co., Fire arms, 133.
Whitney Bros., Glassware, 108.
Whitney, H. M., Gazette, 250.
Whitney Mfg. Co., Chairs, 112; Tools, 138.
Whitson & Slater, Lime and limestones, 72.
Whittaker, Richard, Watches, 339.
Whittemore, J., Crutches, 135.
Whittemore, R. R., Laocoon, 110.
Whittenton Mfg. Co., Shirtings, etc., 118.
Whittier, R. S., Screen, 113.
Whittlesey, C., Antiquities, 328.
Whitwell, Thomas, Ores, 61; Pig iron, 62.
Wiberg, Martin, Apparatus, 363.
Wick, Ridgway, & Co., Railway iron, 56.
Wickersham & Bro., Pipe, 378.
Wickett & Bradley, Limbs, 135.
Wickizer, J. H., U. S. Commissioner, 9.
Widin, Govt. of, 296; Raspberry wine, 312.
Wiederer, N., Looking glasses, 202.
Wiegandt, Hempel, & Parey, Books, 349.
Wiegmann, A., Basket ware, 160.
Wiehe, J., Sugars, 178.
Wielander, P., Buttons, 210.
Wienbelt, W., Boots, 220.
Wier, M. A., & Co., Indicator, 339.
Wigan Coal & Iron Co., Ores, 61.
Wigand, G., Religious books, etc., 349.
Wigand, O., Books, 349.
Wight, S. A., Trap, 378.
Wihl, M., & Co., Woolen stuff, 217.
Wiki, B., Clothing, 213.
Wiklund, W., Hardware, 228.
Wilcox, Wm., Locks, 142.
Wild & Co., Jewelry, 204.
Wild, G. L., & Bro., Toy, 129.
Wild, J. C., Polished stones, 204.
Wild, J., & Co., Mats, 115.
Wild, John, Cotton plush, 150.
Wilder, C., Thermometers, 329.
Wilder, Helen, Hair, 250.
Wilder, J. T., Tennessee, 14.
Wilder, S. G., Fibres, 251.
Wildman, L. P., Violins, 333.
Wiler, W., Torches, 114; Plates, 140.
Wilford, W., Flax, 216.

Wilhelm, A., Reflectors, 114.
Wilhelm, F., Models, 352.
Wilhelm, F., & Co., Drugs, 210.
Wilhelmi, F., Chemicals, 201.
Wilke, H., & Co., Barks, 167.
Wilkens, D. S., Florida, 12.
Wilkin, L., Hats, 317.
Wilkin, Robert, Rye, 156.
Wilkins, M., Oregon, 13.
Wilkinson, H. J., Painting, 174.
Wilkinson Mine, Cinnabar, 67.
Wilkinson, Rizzo, & Co., Ore, 96.
Will & Fink, Tools, 138.
Willcox, J. M., Judge, Gr. XIII., 17.
Willems, P. J., Oils, 220.
Willemsen, P., Cotton goods, etc., 203.
Willett, G., Photographs, 162.
Willett, S. T., Flannels, 189.
Willheim & Newmann, Lanterns, 114.
Williams, C., & Co., Ranges, 375.
Williams, C. E., Case, 259.
Williams, Chas., Marble work, 52.
Williams & Co., Stoves, etc., 374, 376.
Williams, E. G., & Co., Textile fabrics, 150.
Williams, J. B., & Co., Soaps, 103.
Williams, J. F., U. S. Commissioner, 9.
Williams, J. M., & Co., Stamped ware, 188.
Williams, J. S., Indiana, 12.
Williams Marble & Slate Mantel Co., 52.
Williams, Miles, Varnishes, 145.
Williams, R. L., Car coupler, 382.
Williams, Page, & Co., Lamps, 114.
Williams & Powell, Guns, 152.
Williamson, D. D., Chemicals, etc., 101.
Willis, Aug. L., Signals, 106; Shell fuse, 133; Ice creeper, 139; Rails, 142; Coupler, 334.
Willis, E., & Co., Paper collars, 189.
Williston, A. L., Ink and pens, 104.
Willmett, Almanacs, 179.
Wills, E. S., Tool, 138.
Wilsey, L., Nevada, 13.
Wilson, A., Wool, 159; Cokes, 169.
Wilson, B., Idaho, 12.
Wilson, B. O. & G. C., Medicinal herbs, 134.
Wilson, Geo., Bedstead, etc., 112; Wool, 183.
Wilson, Gilmour, & Co., Mantels, 188.
Wilson, Hinkle, & Co., Books, 326.
Wilson & Hughes Stone Co., Stone, 53.
Wilson, J. C., & Co., Paper bags, 189.
Wilson, J. G., Blinds, 378.
Wilson, J. H., Military goods, 125.
Wilson, J. H., Regalias, 142.
Wilson, John, Canes, 127; Fire nozzle, 141; Wool, 165; Soaps, 187.
Wilson, Jos. M , Bridge, 334.
Wilson Mfg. Co., Cup, 377.
Wilson & Miller, Mantels, 52.
Wilson, Sir S., Photographs, 162; Wools, 165.
Wilson, T. A., & Co., Frames, 330.
Wilson, Thomas, Harness, 156.
Wilson, W., Limestone, 63; Fossils, 64.
Wilson, Walker, & Co., Forgings, 56.
Wilt, A., & Son, Sash, 378.
Wiltse, C., Judge, Gr. VII., 16.
Wiman & Co., Stoves, 362.
Winans, G. G., Wainscoting, 378.
Winch, Corydon, Wrought iron spikes, 57.
Winchester Repeating Arms Co., Arms, 133.
Windover, C. S., Brougham, 153; Phaetons, 383.
Windrufva, Sven, Herbarium, 362.
Wing, F. L., & Hill, F. M., Piano, 333.
Wingender Bros., Pipes, 205, 215.
Winger, H., Cloth, 189; Blankets, 189.
Winkler, A., Plates, 210; Oleographs, 211.
Winkler, C., Jewelry, 204.
Winkler, Ch., & Son, Looking glasses, 202.
Winkler, Dr. E., Designs, 352.
Winkler, M., Cast metal signs, etc., 210.
Winner, Powder, 315.
Winning, Hill, & Ware, Water, 74.
Winslow, A. P., Herbarium, 362.
Winslow, Samuel, Skates, 139.
Winsor, H., Finance, 11.
Winter, C. F., Books, 349.
Wire & Screw Factory, Screws, 206.
Wirmond, E. E., Yellow argil, 82.
Wisby Match Mfg. Co., Matches, 225.
Wisconsin, State of, Minerals, 50; Educational exhibit, 322.
Wiskott, C. T., Labels, 205.
Wiss, J., Scissors, 139.
Wissen Mining & Smelting Co., Iron, 75.
Witherbee, J. F., Drawings, 335.
Witherbees, Sherman, & Co., Ore, 47.
Wittek, A., Buttons, 210.
Witty, Calvin, Field cannon, 134.
Wobanawa, M., Fans, 247.
Wöhler, E., Jewelry, 204.
Woldemar, W., Wire ware, 202.
Wolf, A., Chromos, 349.
Wolf Brothers & Keech, Oils, 106.
Wolf, M., Text books, 372.
Wolf, S. M., Shoes, 204.
Wolff, C. H., Judge, Gr. VIII., 16.
Wolff, F., Cotton and mixed goods, 203.
Wolff, F., & Son, Chemicals, 201.
Wolff, F. A., & Sons, Pharmacy, 205.
Wolff, R. & E., Cloth, 203.
Wolle, A. & C., Glue, 262.
Woller, Fr. E., Cotton hosiery, 204.
Women's Labor, Society for the Encouragement of, Embroideries, 318.
Wong Go, Rice, 251.
Wood, A., & Co., Iron, 55.
Wood Bros., Drain tiles, 107; Wagons, 380.
Wood, C. E. P., Washington Ter., 14.
Wood & Haslam, Yarn and cloths, 122.
Wood & Ivery, Bricks, 145.
Wood & Lyons, Buggies, etc., 383.
Wood, Morrell, & Co., Cassimeres, 120.
Wood, T. M., & Co., Venetian blind, 188.
Wood, W. D., Wheat, 156.
Wood, W. D., & Co., Iron, 55.
Wood, Wm., Model, 336.
Wood, Wm., & Co., Cottonades, 118; Suitings, 122; Books, 326.
Woodburn Sarven Wheel Co., Wheels, 380.
Woodcock, F., Porcelain, 193.
Woodfield, W., & Sons, Needles, 151.
Woodman, J. J., Michigan, 13.
Woodruff, E. W., File holders, 130.
Woodruff, Jonah, Silver model, 337.
Woodruff, W. E., jr., Arkansas, 11.
Woods, G., & Co., Organs, 332.
Woods, J. T., Splint, 135.
Woods, Sherwood, & Co., White ware, 139.
Woodstock Iron Co., Ores, 50; Iron, 56.
Woodward, G., Guano, 160.
Woodward, W. W., Carving, 110.
Woodworth, C. B., & Son, Perfumery, 105.
Woodworth, J. L., Cotton yarns, 189.
Woolman, J. P., U. S. Commissioner, 9.
Woolworth, J., Handles, 379.
Woon, R. W., Paddles, 156.
Wooton Desk Co., Desks, 111.
Worcester Corset Co., Corsets, 125.
Worden, A. E., Washer, 377.
Working Home for the Blind, Baskets, 362.
Working Men's Benevolent Asso., Straw, 234.
Workman, H., Clay, 73.
Workmen's Artisans' School, Drawings, 360.
Workmen's Society, Drawings, 360.
Workshop for Making & Repairing Nautical Instruments, Lamps, 373.
Workshop of the Direction of the Baltic Lighthouses, Lamps, 373.
Worrell Bank Lock Mfg. Co., Bank lock, 141.
Worsley, T., & Co., Soaps, etc., 106.
Worsted Spinning Mills, Yarns, 203.
Wortendyke Mfg. Co., Lamp wicks, 118.
Worthington & Co., Polished marble, 72.
Worthington & Sons, Stone, 53.
Worumbo Mfg. Co., Overcoatings, 120.
Wostenholm, G., & Son, Cutlery, 153.
Wouldham Cement Co., Cement, 61.
Woven Wire Mattress Co., Wire cloth, 115.
Woven Wire Web Bed Co., Bed bottom, 109.

Wray, J., & Nephew, Wine, 172.
Wren, W. C., Model, 335.
Wrigglesworth, W. J., Wheels, 379.
Wright, Davenport, & Co., Leather, 158.
Wright, E. W., Wines, 168.
Wright & Holdsworth, Soap, 144.
Wright, J. K., & Co., Inks and varnishes, 105.
Wright, J. P., Photographic views, 179.
Wright & Mansfield, Furniture, 147.
Wright, Payne, & Co., Jams, 164.
Wright, R. & G. A., Toilet articles, 106.
Wright, R. W., Kansas, 12.
Wright, T. S., Wheat, 163.
Wright, W. H., & Co., Carriage, 381.
Wright, Wm. P., Silks and muslins, 123.
Wrigley, Wm., & Co., Soap, 103.
Wu, Gauzes, 242.
Wüflinger Machine Embroidery Estab., 213.
Wührer, L., Maps, 346.
Wulf, N., Paint, 315.
Wulff, H. A., Drawings, 362.
Wunderlich, J. N., Table, 374.
Wunsh, A., Chair, 315.
Würffbain, G., Herbarium, 259.
Wurfflein, Wm., Rifles, 134.
Wurm, F., Cocoons, 168.
Wurster, Randegger, & Co., Maps, 356.
Wurtemburg Felt Factory, Felt shahracks, 203.
Wurtz, H., Judge, Gr. II., 15.
Wurtz's, T., Successors, Chemicals, 201.
Wuste, F., Colors, 207; Coverings, 211.
Wüthenan, von, Chief Engineer of the Swiss Central Railway, Plans, 356.
Wyeth, John, & Bro., Drugs, etc., 102.
Wyndham, F., & Co., Chemicals, 144.
Wyndham, G., Wines, 159.
Wyndham, W., Wines, 159.
Wyoming Historical & Geological Society, Fossils, 47.
Wyoming Valley Knitting Co., Hosiery, 123.
Wywodzeff, Apparatus, 319.

X.

Xabregas Cotton Manufactory, Yarns, 285.

Y.

Yachimek & Sosnovski, Gun, 319.
Yakovleff, John, Ore, 98.
Yale Lock Manufacturing Co., Locks, etc., 140; Anodes, 331.
Yamakishi, K., Cups, 245.
Yamamoto Kinu, Silk, 246.
Yamamoto, Y., Furniture, 245; Cages, 247; Images, 249.
Yamazaki Tosen, Picture, 249.
Yanacoli, Almonds, 307.
Yanak, A., Cocoons, 314.
Yanaki, Box, 302; Cocoons, 314.
Yanaki, Kalviro, Skin, 310.
Yanaki, Micholi, Carpet, 296.
Yanaki, N., Wine, 313.
Yanaki, W., Basket, 292.
Yandell, C. R., & Co., Leather work, 110.
Yani, Suit, 299; Brandy, 313.
Yani, F., Woolens, 299.
Yani, O. A., Tobacco, 310
Yani, P. A., Brandy, 313.
Yani, Paoli, Olive oil, 291.
Yanina, Govt. of, Hemp, 295; Silk, 297.
Yañiz, Marbles, 90; Oil, 271.
Yarritu, Sons of, Soap, 271.
Yasmadji, M., Pillows, 294.
Yassin, H., Leather, 311.
Yates, Bennett, & Allen, Crockery ware, 108.
Yates, Wharton, & Co., Hats, 126.
Yavas, F., Toys, 277.
Yazacoula, M., Broom, 305.
Ycazbalcata & Garcia, Sugar, 268
Ychrapalaki, H. N., Brandy, 313.
Ychtip, Government of, Coal, 97.
Yconomidès, Mastic, 307.
Yehara, T., Silk, 246.
Yehrapalaki, Hadji, Oil, 291.
Yeiraku, Z., Vases, 244.
Yeisei-Kiyiku, Statistics, 244.
Yekahim, H., Silk, 297.
Yeki-tei-riyo, Post-office map, 248.
Yellowley, J. B., Mississippi, 13.
Yeni Ahmed, Wax, 312.
Yeomans, C. E., Massachusetts, 12.
Yerington, H. M., Nevada, 13.
Yerkes & Plumb, Tools, 138.
Yicara, C. P. Sa, Hammocks, 253.
Yildis-Ki, Government of, Emery, 97.
Yillela, Inks, 252.
Yiotti, E., Pharmacies, 252.
Yldis-Ili, Government of, Pitch, 306.
Ylizalituvú, Pulque, 268.
Ylo, Province of, Oil, 264.
Yoffric, Iron, 319.
Yomo Yasunosuke, Bronze, 249.
Yoogoff Iron works, Ores, 98.
Yoogoo Copper Works, Copper, 98.
Yorgaki, Miss, Tapestry, 296.
Yorge, F., Statistics, 368.
Yorghanodhaki, Vetch, 309.
York Manufacturing Co., Shirtings, etc., 118.
York Street Flax Spinning Co., Sheetings, 145.
Yoshida, K., Paper, 247.
Yoshida, S., Crapes, 246.
Yoshida, Y., Bowls, 245; Vases, 248.
Yost, T. A., Carriages, 381.
Youle, W., Hearses, 381.
Younasse Uskup, Spoons, 305.
Young, C. B., Wheat, 167; Wine, 168.
Young, I. T., Iowa, 12.
Young, James Kelly, Potash, 144.
Young, John, Granite, 64.
Young, Ladd, & Coffin, Perfumes, etc., 105; Atomizers, 108.
Young Men's Christian Association of North America, Map, pictures, 336.
Young Merchants' Union, Report, 358.
Young, Mrs., Mosses, 250.
Young & Strang, Gums, 145.
Young, W. A., Sharpeners, 130.
Young, Wm. J., & Sons, Hand stamp, 130; Telescopes, 329.
Young, Y. & G., Limestone, 72.
Young's, Wm., Sons, Crockery, 107.
Youngstown Rolling Mill Co., Iron, 56.
Youssouf, Jujube, 307.
Youssouf, Seeds, 310; Wool, 314.
Youssouf, C., Morocco, 310.
Youssouf, Gunki, Cloth, 294.
Youssouf, H., Foulards, 298; Pots, 305.
Youssouf, Mamor, Beans, 309.
Youssouf, Manoc, Beans, 309.
Youssoul Blouna, Yarn, 295.
Yoyan-jo, Raw silks, 246.
Ypanema Iron Works, Ores, 81; Bar iron, 82.
Yssakovitch, J. & M., Soap, 315.
Ystad Match Manuf. Co., Matches, 225.
Ytuarte, J., Music, 267.
Yucatan, State Gov. of, Shawls, 265; Woods, 267; Coffee, 268; Fibres, 269.
Yuson, P., Fabric, 281.
Yussep, T., Mastic, 313.
Yussuf Mocha, Poutargue, 304.
Yussuf Sarret, Raisins, 312.

Z.

Zaalberg, J., Covers, 220.
Zabala, Iñiguez, Syrup, 270.
Zabalo, Andres, Iron, 89.
Zacher, C., Photographs, 358.
Zacherl, J., Insect powder, 210; Sponges, 211.
Zadé Moustapha, Wool, 314.
Zæslin & Müller, Silk waste, 212.
Zaferemboli, Government of, Raw silk, 297.
Zaferampolo, Govt. of, Saffron, 306; Prunes, 312.

Zaferembolo, Inkstand, 304.
Zaferembolo Orphan School, Cloth, 295.
Zaframbolo, Govt. of, Cups, 293.
Zaha, M., Shawls, 296.
Zahadji Gotcha, Vests, 299.
Zahardji Nocha, Gaiters, 300.
Zahari, Distillery of, Brandy, 313.
Zahn, R. von, Books, 349.
Zähner & Schiess, Edgings, 213.
Zaitzevski, Pottery, 315.
Zalaffi, B., Iron work, 235.
Zambrano, F., Lessons, 266.
Zamora, F., Soap, 271.
Zamorano & Bros., Gloves, 276.
Zander, G., Gymnastic apparatus, 227, 363.
Zanders, H., Drawings, 362.
Zane, C., Implements, 329.
Zanni, Pharmaceutical preparations, 291.
Zapata, L., Starch, 262.
Zaragoza Corps of Mining Engineers, Argil, 91.
Zaragoza, M., Balsams, 278.
Zargechi, L., Ore, 94.
Zasche, Joseph, Porcelain, 207.
Zäuner, Henry, Zephyr goods, 125.
Zavialoff, A., Scissors, 319.
Zayas, Pablo, Dictionary, 267.
Zech, H., Furniture, 216.
Zeckert, John, Glassware, 207.
Zeitoun, Government of, Mineral water, 97.
Zeitteles, D., Gloves, 204.
Zekiyé, Madame, Cap, 300.
Zellweger, J. C., Embroideries, 213.
Zelo, C., Morocco, 310.
Zelner, J., Chemicals, 201.
Zempoala Factory, Wools, 265.
Zenca, J. Estrada, Map, 267.
Zennig, R. H., & Co., Matches, 106; Boxes, 132.
Zenoup, Marie, Necktie, 302.
Zenteno, Estevan, Coal, 86.
Zentmayer, J., Microscopes, 330.
Zernin, E., Books, 349.
Zeuner, H., Jewelry, 204.
Zevecki, C., Instruments, 372.
Ziadji Oglou Bolis, Sumac leaves, 306.
Ziamani, daughter of Nicoli, Case, 301.
Zieher, Ottmar, Jewelry, 204.
Ziegele & Hauck, Toys, 205.
Ziegler's Son, Andreas, Tiles, 207.
Ziegler's Son, Joh. Ant., Blown plate glass, 207.
Zievers, B., Cement, 98.
Zihlman, Jos., Glass mould, 54.
Zimber, J., Instruments, 349.
Zimdars, C. E., Apparatus, 339.
Zimin, J. M. P. & F., Cotton goods, 316.
Zimmer & Co., Salts, 201.
Zimmerman, G. P. H., Chart, 361.
Zimmerman, R., Bags, 318; Saddlery, 383.
Zimmermann, C. F., Instruments, 332.
Zimmermann, E. G., Jewelry, 204.
Zimmermann, H., Organ pipes, 345.
Zimmermann, Otto, Tiles, 75.
Zinc Roofing & Ornamenting Works, 143.
Zinn, C., & Co., Baskets, 380.
Zinserling, C., Tape, 317.
Zinsser, Wm., & Co., Varnishes, etc., 105.
Zlatoust Crown Armor Factory, Swords, 319.
Zoardji Gocha, Vest, 299.
Zohei-riyo, Imperial mint, Coins, 248.
Zokopolani, M., Wool, 295.
Zollikofer Female Seminary, Work, 353.
Zolotareff's Widow & Ribakoff, Silk, 317.
Zoobkoff, S., Silk, 317.
Zoological Gardens, Direction of, Plans, 35.
Zorié, Wife of Ahmed, Cap, 300.
Zorilla, Benjamin, Ore, 83; Hammock, 256.
Zorn, E., Sauces, 164.
Zoroku, H., Bronze, 249.
Zozié, Lace, 301.
Zsigmondy, A., Teeth, 210.
Zuccala, Carlo, Pharmacies, 305.
Zucker & Levett, Rouge, 139.
Zuelzer, Dr., Model, 350.
Zuiny, A., Books, 368.
Zumbrunn, Schmoker, & Co., Carvings, 358
Zürcher-Banziger, J., Embroidery, 213.
Zurich Aid Society, Report, 357.
Zurich Joint Stock Co., Plans, 356.
Zwicky-Laager, C., Atlas, 353.

MAGAZINES FOR HOME AND TRAVEL.

The Atlantic Monthly.

THE BEST LITERARY MAGAZINE IN AMERICA.

Devoted to Literature, Science, Art, and Politics.

EVER since its establishment, in 1857, the ATLANTIC MONTHLY has contained the expression of the ripest thought and culture in America: the best poems, the best novels, the ablest criticism, the most entertaining and elevating literature. The foremost American writers contribute to its pages, and the names of LONGFELLOW, WHITTIER, LOWELL, HOLMES, EMERSON, and others are closely identified with it.

JOHN G. WHITTIER, JAMES RUSSELL LOWELL, WILLIAM D. HOWELLS, MRS. FRANCES ANNE KEMBLE, CHARLES DUDLEY WARNER, T. B. ALDRICH, CHARLES FRANCIS ADAMS, JR., HENRY JAMES, JR., and other writers of recognized prominence and ability will contribute to the ATLANTIC during the summer of 1876.

IN THE JULY NUMBER

MR. HOWELLS describes his ***Days at the Centennial Exhibition.***

GENERAL HOWARD has a noteworthy account and description of ***The Battle of Gettysburg;***

CHARLES DUDLEY WARNER writes of Oriental Travel, ***From Jaffa to Jerusalem;*** and

JAMES RUSSELL LOWELL and ***T. B. ALDRICH*** contribute ***Poems.***

If you want the best reading for home, for leisure moments of travel, on the railroad or steamer, at the mountains or the lakes, or by the seaside, BUY THE ATLANTIC, which is

For Sale at all the News-stands and Bookstores.

PRICE: 35 cents a number; **$4.00** a year. With a superb life-size portrait of the poet Longfellow, **$5.00.** The Publishers prepay all postage.

The American Naturalist.

A POPULAR ILLUSTRATED MONTHLY MAGAZINE OF NATURAL HISTORY AND TRAVEL.

THIS journal of popular Natural Science is published by Messrs. H. O. HOUGHTON AND COMPANY, Riverside Press, Cambridge, Mass., under the editorial management of Dr. A. S. PACKARD, Jr., with the assistance of eminent men of science.

It is of a popular nature, so as to interest the general reader as well as the young naturalist, and is a journal of science-education and for the use of science-teachers.

The NATURALIST contains departments of **BOTANY, ZOÖLOGY, ANTHROPOLOGY, GEOLOGY** and **PALÆONTOLOGY, GEOGRAPHY** and **EXPLORATION,** and **MICROSCOPY. THE PROCEEDINGS OF SCIENTIFIC SOCIETIES** are given with great promptness. A digest of the **CONTENTS OF FOREIGN SCIENTIFIC JOURNALS AND TRANSACTIONS** is also given each month, together with the **LATEST HOME AND FOREIGN SCIENTIFIC NEWS.**

ARTICLES FOR VOLUME X., 1876,

By ***Professors ASA GRAY, J. D. WHITNEY, N. S. SHALER, W. G. FARLOW, G. L. GOODALE,*** of Harvard University; ***Professors O. C. MARSH, A. E. VERRILL,*** of Yale College; ***Mr. A. AGASSIZ,*** and other leading naturalists, are either in hand or promised. Notes from abroad will occasionally be contributed by ***Mr. ALFRED W. BENNETT,*** the distinguished English botanist.

A series of **Centennial Articles** on Botany, Zoölogy, Geology, and Microscopy, by our leading scientists have been promised.

PRICE: 35 cents a number; **$4.00** a year.

PUBLISHED BY H. O. HOUGHTON AND COMPANY, BOSTON.

HURD AND HOUGHTON, NEW YORK.

The Riverside Press, Cambridge.

STANDARD BOOKS FOR THE LIBRARY

PUBLISHED BY

HURD AND HOUGHTON, New York.

The Riverside Press, Cambridge.

ANDERSEN'S (Hans Christian) COMPLETE WORKS. 10 vols., cr. 8vo..... $16.50
BACON'S WORKS. 15 vols., cr. 8vo..... 33.75
CARLYLE'S CRITICAL AND MISCELLANEOUS ESSAYS. 4 vols., cr. 8vo..... 9.00
CHINESE CLASSICS. WORKS OF CONFUCIUS AND MENCIUS. 1 vol., 8vo. 3.50
COOPER'S (J. Fenimore) COMPLETE WORKS.

Riverside Edition. 32 vols., cr. 8vo..... 72 00
Household Edition. 32 vols., 16mo..... 40.00

COOPER'S SEA TALES. 10 vols., 16mo..... 12.50
COOPER'S LEATHER STOCKING TALES. 5 vols.

Riverside Edition. cr. 8vo..... 11 25
Household Edition. 16mo..... 6.25

DE QUINCEY'S COMPLETE WORKS. 12 vols., cr. 8vo..... 21.00
DE STAEL'S GERMANY. Cr. 8vo..... 3.00
DICKENS' (CHARLES) COMPLETE WORKS. *Five Editions.*

New Household Edition. 56 vols., 559 illustrations. 16mo..... 84.00
Illustrated Library Edition. 29 vols., 559 illustrations. Cr. 8vo..... 56.00
Riverside Edition. 28 vols. 559 illustrations. Cr. 8vo..... 49.00
Globe Edition. 15 vols., 55 illustrations. 12mo..... 18.50
Large Paper Edition. 55 vols., 559 illustrations. Large 8vo..... 275.00

FENELON'S ADVENTURES OF TELEMACHUS. Cr. 8vo..... 2.25
GREENE. LIFE OF NATHANIEL GREENE, MAJOR-GENERAL IN THE ARMY OF THE REVOLUTION. 3 vols., 8vo..... 12.00
KNIGHT'S AMERICAN MECHANICAL DICTIONARY. 3 vols., 8vo..... 21.00
MACAULAY'S (LORD) COMPLETE WORKS.

Riverside Edition. 16 vols., cr. 8vo..... 32.00
Student's Edition. 8 vols., cr. 8vo..... 16.00
Popular Edition. 6 vols., cr. 8vo..... 12.50

MACAULAY'S HISTORY OF ENGLAND.

Riverside Edition. 8 vols., cr. 8vo..... 16.00
Student's Edition. 4 vols., cr. 8vo..... 8.00

MACAULAY'S CRITICAL, HISTORICAL, AND MISCELLANEOUS ESSAYS, WITH A MEMOIR.

Riverside Edition. 6 vols., cr. 8vo..... 12.00
Student's Edition. 3 vols., cr. 8vo..... 6.00
Popular Edition. 1 vol., cr., 8vo..... 2.50

MACAULAY'S SPEECHES AND POEMS, WITH PAPERS UPON THE INDIAN PENAL CODE.

Riverside Edition. 2 vols., cr. 8vo..... 4.00
Student's Edition. 1 vol., cr. 8vo..... 2.00

MONTAIGNE'S WORKS. 4 vols., cr. 8vo..... 9.00
PASCAL'S THOUGHTS, LETTERS, AND OPUSCULES. Cr. 8vo..... 2.25
PASCAL'S PROVINCIAL LETTERS. Cr. 8vo..... 2.25
SCOTT'S WAVERLEY NOVELS. 25 vols., cr. 8vo..... 37.50
SMITH'S (Dr. William) DICTIONARY OF THE BIBLE. *American Edition*, UNABRIDGED, ENLARGED, AND CORRECTED. 4 vols., 8vo..... 26.00

"In short, it seems that we have to thank America for the most complete work of the kind in the English, or, indeed, in any other language." — *London Bookseller.*

SOUTH'S (Robert) SERMONS, WITH A MEMOIR. 5 vols., 8vo..... 15.00
VOLTAIRE'S HISTORY OF CHARLES XII. Cr. 8vo..... 2.25

****The above prices are for cloth bindings, but all of these books are sold also in fine library bindings.*

A complete Catalogue of the Riverside Press publications can be obtained at the Book Trade Pavilion in the Main Building, or by application to

HURD AND HOUGHTON, 13 Astor Place, New York.

The Riverside Press, Cambridge.

VALUABLE AND STANDARD WORKS

RELATING TO

THE FINE ARTS.

PAINTERS, SCULPTORS, ARCHITECTS, ENGRAVERS, AND THEIR WORKS.

A Handbook. By CLARA ERSKINE CLEMENT. With many illustrations and monograms. Crown 8vo, cloth, red edges, $3.25.

This book is a *multum in parvo* affair. It will tell you all you want to know of hundreds of artists, and where to find all you want to know of their more important brethren, of whom no brief account will suffice you. It is a complete biographical dictionary of the heroes of brush, and chisel, and graver. —*New York Tribune.*

A HANDBOOK OF LEGENDARY AND MYTHOLOGICAL ART.

By CLARA ERSKINE CLEMENT. Profusely illustrated, and with a complete index. Crown 8vo, cloth, red edges, $3.25.

All that we need to explain the stories illustrated or the persons represented in the pictures and statues of the churches and galleries of Europe may be found in Mrs. Clement's book, which ought to be known to a large public. — *Eugene Benson in the College Courant.*

THE GRAMMAR OF PAINTING AND ENGRAVING.

Translated from the French of Charles Blanc's *Grammaire des Arts du Dessin*, by KATE NEWELL DOGGETT. With the original illustrations. In one volume, 4to, cloth, $6.50; popular edition, cloth, $4.50.

In many respects the most important art publication which has been made in this country. Few books, and scarcely any for popular use, have been published with such solidity and elegance, with so much luxury of paper, type, and binding. — *Hartford Courant.*

TALKS ON ART.

By WILLIAM M. HUNT. 8vo, paper, $1.50.

It is full of sparkling and epigrammatic sayings; it abounds in wise and conscientious precepts, or, if Mr. Hunt objects to the word conscientious, we will say of precepts loyal to recognized principles. — *The Atlantic Monthly.*

A GLIMPSE AT THE ART OF JAPAN.

By JAMES JACKSON JARVES. With illustrations in photo-lithography from Japanese designs. In one volume, crown 8vo, cloth, $2.50.

In its text it is a delightfully written, instructive, and philosophical survey of art in Japan. . . . . The result is a book of many attractions, not the least of which is to be found in thirty full-page illustrations, reproduced with all their grotesqueness and all their charm from the originals by the Japanese artists. — *Hartford Courant.*

THE ART IDEA.

Including an Account of American Architecture, Sculpture, and Painting; with Critical Notices of Artists, etc. By JAMES JACKSON JARVES. 18mo, red cloth, gilt top, $1.75.

ART THOUGHTS:

The Observations and Experiences of an American Amateur in Europe. By JAMES JACKSON JARVES. Crown 8vo, cloth, gilt top, $2.50.

ESSAYS ON ART.

By FRANCIS TURNER PALGRAVE, late Fellow of Exeter College, Oxford. 16mo, red cloth, gilt tops, $1.75.

CHARCOAL DRAWING.

Translated from the French of Auguste Allongé by S. D. W. With an Introduction by C. C PERKINS, Esq., and a heliotype frontispiece. Small 4to, cloth, $1.00.

ARCHITECTURE FOR GENERAL STUDENTS.

By CAROLINE W. HORTON. With descriptive illustrations. One volume, 16mo, cloth, $1.50.

*** *For sale by Booksellers. Sent, post-paid, on receipt of price by the Publishers,*

HURD AND HOUGHTON, 13 Astor Place, New York,

The Riverside Press, Cambridge.

KNIGHT'S
AMERICAN MECHANICAL DICTIONARY.

A DESCRIPTIVE WORD-BOOK OF TOOLS, INSTRUMENTS, MACHINES, CHEMICAL AND MECHANICAL PROCESSES; CIVIL, MECHANICAL, RAILWAY, HYDRAULIC, AND MILITARY ENGINEERING.

A HISTORY OF INVENTIONS.

GENERAL TECHNOLOGICAL VOCABULARY; AND DIGEST OF MECHANICAL APPLIANCES IN SCIENCE AND THE INDUSTRIAL AND FINE ARTS.

By EDWARD H. KNIGHT, A. M.

CIVIL AND MECHANICAL ENGINEER.

This book is intended to be in *practical mechanism* not only what a lexicon is in a language, — a compendium of names, definitions, descriptions, and uses, — but, in addition, a history of the development of the industrial arts, machines, and tools. It is designed to enable any person knowing the name of an instrument or machine to find information promptly; and is, in *scope* and *method*, the first attempt of the kind in this or any other language.

Its *scope* concerns Agricultural Machinery, Wood, Metal, Glass, Stone, Clay, Cement and Leather working; Mining, Hydraulic, Railway, Marine, and Military Engineering; Working in Cotton, Wool, Silk, Flax, Hemp and Paper; Steam, Air, and Gas Engines, and other Motors; Lightning, Heating, Drying and Ventilating; Fine Arts; Photographic, Electric, Telegraphic, Optical, Horological, Calculating, Surgical, and Dental Instruments, etc.

Its *method* is two-fold: —

1. Each subject is considered in its alphabetical order.

2. Each Art, Trade, or Special Manufacture has its own index, under which are assembled the various terms and names of tools, machines, and processes of the trade. By consulting this index, a subject may be found by searching among its cogeners when a name is imperfectly known or has temporarily slipped the memory. About 15,000 words have been thus gathered into over 150 *specific Indexes*, which themselves occur in their alphabetical places.

The work treats of 20,000 subjects, and is illustrated with 6,000 carefully prepared engravings. It would indeed be correct to say that the illustrations will be fully 15,000 in number, inasmuch as a variety of distinct forms of a machine or tool (sometimes as many as forty) are frequently associated in a single cut, and might, had the object been to spread them out and make a show, have been enumerated as separate figures.

The value of this work, even if there were in print others of a similar nature, would be very great on account of its scope, its great number of illustrations, and the trustworthiness of its author: but at present its value is enhanced by the fact that it has, properly speaking, no competitor. There is published no book of similar intent which is at once so large, so well illustrated, so closely brought down to the present time and so full of illustrations. It will be as much in place in public and private libraries as will the lexicon and cyclopedia. Dentists, surgeons, philosophers, chemists, engineers, mechanics, and scientific men and students of every grade, will find here described and illustrated more of the instruments and machines peculiar to their professions than can be found in well-furnished stores and manufactories; and they will also find a constant supplementary course of instruction so arranged as to be available for instant reference.

The work has been in active preparation for the past eight years, and will be finished in about forty-two parts of sixty-four pages each, making three volumes. The first and second volumes have been already published and the third is to be completed during the present summer. Sold only by subscription.

For particulars as to price, etc., address the publishers,

H. O. HOUGHTON AND COMPANY, 1 Somerset Street, Boston.

HURD AND HOUGHTON, 13 Astor Place, New York.

The Riverside Press, Cambridge.

VARNISHES FOR

COACH & RAILWAY-CAR BUILDERS,

PIANO AND COFFIN MANUFACTURERS,

AND FOR EXPORT.

[TRADE 

MARK.]

VALENTINE & COMPANY,

VARNISH MANUFACTURERS,

323 PEARL-STREET, NEW-YORK.

GREAT COMBINATION STORE,

627 & 629 Chestnut Street,

(ONE SQUARE ABOVE INDEPENDENCE HALL.)



THE

LARGEST AND CHEAPEST

ONE PRICE

RETAIL DRY GOODS HOUSE

ON THE CONTINENT.

All the richest novelties in Black and Colored Silks. All kinds of Dress Goods. All kinds of Mourning Goods, Shawls, Suits and Cloaks, Hosiery and Gloves, Laces and Notions, Umbrellas, Parasols, Ladies' Underwear, Muslins, Sheetings, White Goods, House Furnishing Dry Goods, etc., at the

LOWEST PRICES KNOWN TO THE TRADE.

J. A. SOUTHWICK,

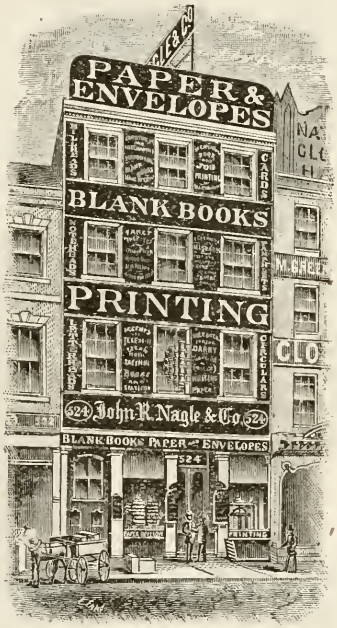
MANAGER and DIRECTOR.

A CARD.—Strangers on visiting this establishment can rely on strictly fair dealing, the lowest prices, the newest styles, the best assortments, and a reputation for taste and liberality second to no house in the country.

JOHN R. NAGLE & CO.

PRINTERS

BLANK BOOK MANUFACTURERS

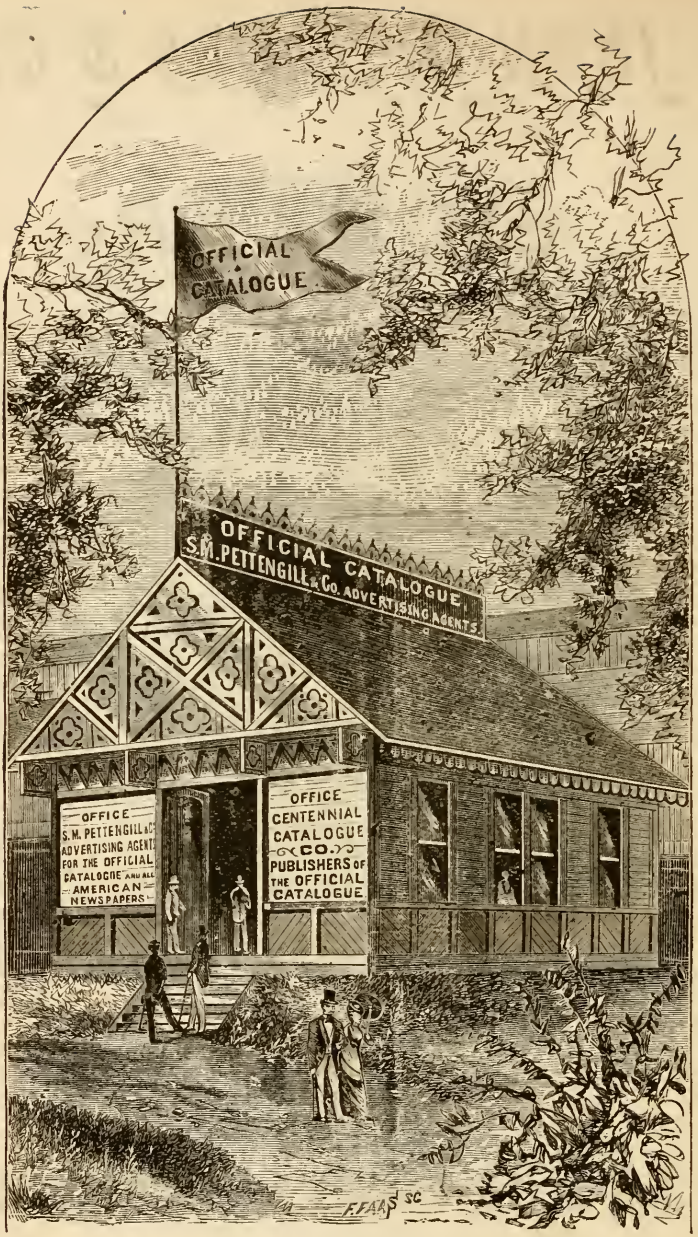


PAPER & ENVELOPE DEALERS

Printed Envelopes a Specialty.

524 MARKET STREET

PHILADELPHIA.



BUILDING No. 41,

OCCUPIED JOINTLY BY THE

CENTENNIAL CATALOGUE COMPANY,

AND

S. M. Pettengill & Co., Newspaper Advertising Agents,

South of East End of Machinery Hall.

ADVERTISEMENTS taken at this office for the Official Catalogue and all newspapers of the United States and Canadas. The principal papers of the country kept on file for inspection and use of exhibitors and visitors generally.

CENTENNIAL CATALOGUE CO.

S. W. Cor. Fourth and Library Sts., Philadelphia,

PUBLISHERS OF THE

OFFICIAL CATALOGUE

OF THE

INTERNATIONAL EXHIBITION OF 1876.

This Company owns the exclusive right to publish, sell, and distribute the "*Official Catalogue of the International Exhibition of 1876*," the work being printed under the direction of, and compiled from manuscript furnished by, the "U. S. Centennial Commission."

Advertisements taken on application to S. M. PETTENGILL & Co., Advertising Agents.

JOHN S. MORTON,
President.

MORDECAI D. EVANS,
Treasurer.

L. L. HYNEMAN,
Secretary.

S. HENRY NORRIS,
Solicitor.

JOHN R. NAGLE,
Publishing and Advertising Manager,
524 Market St., Philadelphia.

S. M. PETTENGILL & CO.,
Advertising Agents,
No. 701 Chestnut Street, Philadelphia,
No. 37 Park Row, New York,
No. 10 State Street, Boston,
Exhibition Grounds—South of East end of Machinery Hall, Building No. 41.

J. M. JOHNSON & SONS, Limited,
Sole European Agents,
No. 8 Castle St., Holborn, London.

DIRECTORS:

JOHN S. MORTON,
M. ROSENBACH,
GEORGE T. JONES,
WM. H. PENNELL,
STEPHEN F. WHITMAN,
JOHN R. NAGLE,
JOSEPH HEILBRUN.

Office of the Company on Exhibition Grounds, Building No. 41, South of East end of Machinery Hall.



ART GALLERY, OR MEMORIAL HALL.

United States Centennial Commission.

INTERNATIONAL EXHIBITION.

1876

Official Catalogue.

PART II.

ART GALLERY, ANNEXES, AND OUT-DOOR WORKS OF ART.

DEPARTMENT IV.—ART.

REVISED EDITION.

PHILADELPHIA:
Published for the Centennial Catalogue Company
BY JOHN R. NAGLE AND COMPANY.
Printed at the Riverside Press, Cambridge, Mass.
1876.

Entered according to Act of Congress, in the year 1876, by the
UNITED STATES CENTENNIAL COMMISSION,
in the office of the Librarian of Congress, at Washington, D. C.

ALL RIGHTS RESERVED.

Centennial Catalogue Company Assignees of Copyright.

CONTENTS.

List of Buildings and Special Exhibits, ... 6
Subject Index, National Exhibits, ... 8
The Memorial Hall and Annex, ... 9
Synopsis of the Classification, ... 12
Classification of the Department of Art, ... 13
Catalogue of the Department of Art, ... 17
Photographic Exhibition Building, ... 137
Out-Door Works of Art, ... 146
Index to Exhibitors, ... 151

BUILDINGS AND SPECIAL EXHIBITS WITHIN THE EXHIBITION GROUNDS.

[NOTE.—The buildings bear the numbers prefixed to them in this table, being the numbers adopted by the Centennial Guide Book Co. (Limited).]

Buildings South of the Avenue of the Republic.

No.		Part	Page
1.	Main Exhibition Building,	I.	23
2.	Machinery Hall,	III.	9
3.	Machine Shop,	III.	117
4.	American Boiler House,	III.	117
5.	Corliss Boiler House,	III.	117
6.	British Boiler House,	III.	117
7.	Shoe and Leather Exhibition Building,	III.	105
8.	Office Centennial Board of Finance,	III.	117
9.	Office U. S. Centennial Commission,	III.	117
10.	Centennial National Bank,	III.	117
11.	Weimer Machine Works,	III.	118
12.	Bartholdi Fountain	III.	146
13.	Catholic Total Abstinence Union Fountain,	III.	146
14.	Fuller, Warren, & Co., Heating Apparatus,	III.	118
15.	Gillender & Sons, Glassware Manufactory,	III.	118
16.	Camp of West Point Cadets,	III.	118
17.	Iron Pipe,	III.	118
18.	Liberty Stove Works,	III.	118
19.	Annex, Saw Mill,	III.	119
20.	Boiler House,	III.	119
21.	Railway Engine House,	III.	119
22.	St. Cecilia Organs,	III.	119
23.	Automatic Railway,	III.	119
24.	Monument—American Soldier,	III.	119
25.	Gunpowder Pile-Driver,	III.	119
26.	Jesse Star & Son, Iron Works,	III.	119
27.	West End Railway Offices,	III.	119
28.	Pneumatic Tubes,	III.	119
29.	New England Granite Co.'s Exhibit,	III.	120
30.	Railroad Crossings,	III.	120
31.	State of Nevada Quartz Mill,	III.	120
32.	Store House,	III.	120
33.	Friction Drum,	III.	120
34.	Stokes & Parrish, U. S. Hoisting Machine,	III.	120
35.	Chilean Amalgamating Machinery,	III.	120
36.	Campbell Printing Press,	III.	120
37.	Old Locomotive and Car,	III.	121
38.	Car House,	III.	121
39.	Police Station,	III.	121
40.	Averill Paint Co.,	III.	121
41.	Centennial Catalogue Co.,	III.	121
42.	Stokes & Parrish, Boiler House,	III.	121
43.	Ehret's Waterproof Roofing,	III.	121
44.	Tombstones,	III.	122
45.	Terra Cotta Pipe,	III.	122
46.	Mineral Annex, 1 and 2,	III.	122
47.	Fireproof Ventilated Buildings,	III.	122
48.	Swings,	III.	122
49.	Ornamental Stone Work,	III.	122

Buildings North of the Avenue of the Republic, and West of Belmont Av.

No.		Part	Page
51.	United States Government Building,	III.	73
51½.	Bartholdi Electric Light,	III.	122
52.	United States Hospital,	III.	73
52½.	Howe Monument,	III.	122
53.	United States Hospital Tent,	III.	73
53½.	Jerusalem Bazaar,	III.	122
54.	United States Laboratory,	III.	73
54½.	Office Philadelphia "Times,"	III.	123
55.	Pennsylvania State Building,	III.	123
55½.	Hungarian Wine Pavilion,	III.	123
56.	Ohio State Building,	III.	123
56½.	Police Station,	III.	124
57.	Indiana State Building,	III.	124
57½.	Sponge Fishers of Turkey,	III.	124
58.	Illinois State Building,	III.	124
58½.	Bethlehem Bazaar,	III.	124
59.	Wisconsin State Building,	III.	124
59½.	Fog Horn and Bell,	III.	124
60.	Michigan State Building,	III.	124
61.	New Hampshire State Building,	III.	125
62.	Connecticut State Building,	III.	125
63.	Massachusetts State Building,	III.	125
64.	Delaware State Building,	III.	125
65.	Maryland State Building,	III.	125
66.	Arkansas State Building,	III.	125
67.	Japanese Dwelling,	III.	125
68.	West Virginia State Building,	III.	125
69.	Canadian Log House,	IV.	134
70.	Missouri State Building,	III.	130
71.	British Government Building,	III.	130
72.	British Government Building,	III.	130
73.	British Government Building,	III.	130
74.	New York State Building,	III.	130
75.	Lienard's Relief Plans, Paris, Jerusalem, Italy, etc.,	III.	130
76.	Pop-corn Stand,	III.	131
77.	Cigar Stand,	III.	131
78.	Soda Water Stand,	III.	131
79.	Tunisian Café and Bazaar,	III.	131
80.	Columbus Monument,	III.	131
81.	Drinking Fountains,	III.	131
82.	Restaurant "Trois Frères Provençaux,"	III.	131
83.	Office New York "Tribune,"	III.	131
84.	World's Ticket Office, Cook, Son, & Jenkins,	III.	131
85.	Loiseau's Pressed Fuel Company,	III.	132
86.	Spanish Government Buildings,	III.	132
87.	United States Signal Office,	III.	141
88.	Tennessee State Building,	III.	141
89.	Mississippi State Building,	III.	142
90.	George's Hill Restaurant,	III.	142
91.	Bishop Allen Monument,	III.	142

BUILDINGS AND SPECIAL EXHIBITS WITHIN THE EXHIBITION GROUNDS.

[NOTE.—Descriptions of the Buildings will be found at the indicated part and page of the Official Catalogue.]

Buildings North of the Avenue of the Republic, and West of Belmont Av.

No.		Part	Page
92.	Office of the Boston "Advertiser" and Boston "Herald,"	III.	142
93.	Rowell's Newspaper Exhibition Building,	III.	142
94.	California State Building,	III.	142
95.	Centennial Fire Patrol, No. 1,	III.	142
96.	Turkish Café,	III.	143
97.	Office Frank Leslie's Publications,	III.	143
98.	Iowa State Building,	III.	143
99.	Rhode Island State Building,	III.	143
100.	Vermont State Building,	III.	143

Buildings East of Belmont Avenue, and South of Fountain Avenue.

101.	Art Gallery,	II.	9
102.	Art Gallery Annex,	II.	10
103.	B'nai B'rith Monument of Religious Liberty,	III.	143
104.	Photographic Art Building,	II.	137
105.	Vienna Bakery and Coffee House,	III.	143
106.	Principal Annex to Main Exhibition Building,	I.	374
107.	Swedish Government Building,	III.	144
108.	Japanese Bazaar,	III.	144
109.	The Judges' Hall,	III.	144
110.	Centennial Photographic Co.,	III.	144
111.	Sheet-metal Pavilion,	III.	144
112.	German Government Building,	III.	144
113.	Railroad Ticket Office,	III.	144
114.	Office United States Centennial Commission,	III.	145
115.	Brazilian Government Build'g,	III.	145
116.	The Dairy,	III.	145
117.	Restaurant "La Fayette,"	III.	145
118.	House of Public Comfort,	III.	145
119.	Empire Transportation Co.,	III.	145
120.	French Government Building,	III.	145
121.	Centennial Fire Patrol, No. 2,	III.	145
122.	Penn'a Educational Building,	III	146
123.	Telegraph Office,	III.	147
124.	American Fusee Company,	III.	147
125.	Klautscheck, Thomas, & Stewart's Glass Magazine,	III.	147
126.	Moorish Villa,	III.	147
127.	American Bible Society,	III.	147
128.	Hunter's Camp,	III.	147
129.	Office Water Department,	III.	148
130.	Soda Water Stands,	III.	148
131.	Cigar Stands,	III.	148
132.	Singer's Sewing Machines,	III.	148
133.	Centennial Medical Departm't,	III.	148
134.	Portugal Government Building,	III.	148
135.	Bankers' Building,	III.	148
136.	French Glass Exhibit,	III.	149
137.	Kindergarten,	III.	149
138.	Centennial Police Station,	III.	149
139.	Philadelphia City Building,	III.	149
140.	Music Pavilion,	III.	149
141.	Burial Caskets,	III.	149
142.	Perforated Metal Building,	III.	149
143.	Rubber Roofing,	III.	149
144.	Cuban Acclimation Office,	III.	149
145.	Naval Group,	III.	149
146.	The Dying Lioness,	III.	149

Buildings East of Belmont Avenue, and North of Fountain Avenue.

151.	Horticultural Hall,	IV.	147
152.	Agricultural Hall,	IV.	9
153.	The Women's Pavilion,	III.	85
154.	The Women's School House,	III.	150
155.	New Jersey State Building,	III.	150
156.	Restaurant of the South,	III.	150
157.	Kansas and Colorado State Building,	III.	150
158.	New England Farmer's Home 100 years ago, and Modern Kitchen,	III.	150
159.	Great American Restaurant,	III.	150
160.	German Restaurant,	III.	151
161.	Tea and Coffee Press,	III.	151
162.	Butter and Cheese Factory,	III.	151
163.	Soda Water Stand,	III.	151
164.	Cigar Stand,	III.	151
165.	Farm Wagon Building,	IV.	135
166.	Pomological Building,	IV.	135
167.	Brewers' Building,	IV.	136
168.	Model House Apiary,	IV.	140
169.	Guano Company,	III.	151
170.	Special Flower Exhibit Building,	III.	170
171.	Wind Mills,	IV.	140
172.	Office "Ohio Farmer,"	IV.	140
173.	Hay Press,	III.	152
174.	Police Station,	III.	152
175.	Elevated Railroad,	III.	152
176.	Boiler House,	III.	152
177.	Virginia State Building,	III.	152
178.	Protective Fire Apparatus,	III.	152
179.	Pop-corn Stands,	III.	152
180.	J. L. Mott Co. Fountain,	III.	152

SUBJECT INDEX, NATIONAL EXHIBITS.

DEPT. IV.—ART.

NATIONS.	Sculpture, Carvings, Medals.	Oil Paintings.	Water Colors.	Engraving, Lithography, Chromo-lithography.	Drawings, Etchings.	Architectural Designs.	Ceramic Decorations, Mosaics, Stained Glass.	Art Applied.	Photographs.	Out-Door Works of Art.
United States	21–59	17–54	25, 48	58	54	32	52, 53, 57	55	137, 145	146
Great Britain	60	60	65	67	67	.....	.....	.....	141	.....
Canada	.....	69	.....	.....	.....	.....	.....	.....	142	.....
France	74–81	72–79	79	79	.....	82	74, 76	73	143	146
Germany	85, 87	83	86	86	.....	.....	86, 87	.....	86, 143	148
Austria	90, 91	88, 91	90	.....	91	.....	.....	.....	91, 143	.....
Switzerland	.....	.....	.....	.....	.....	.....	.....	.....	143	.....
Belgium	93–95	92–99	99	98	98	98	98	97	98	.....
Netherlands	103	100	.....	103	.....	.....	.....	.....	103	.....
Denmark	.....	104	.....	.....	.....	.....	.....	.....	.....	.....
Sweden	105	105	107	.....	.....	.....	.....	.....	144	.....
Norway	108, 109	108	.....	.....	.....	.....	.....	.....	.....	.....
Italy	110–118	111–120	.....	.....	.....	.....	112, 119	.....	143	.....
Japan	.....	.....	.....	.....	.....	.....	.....	.....	145	.....
Brazil	121	121	121	.....	121	.....	.....	.....	144	.....
Argentine Republic	.....	122	122	.....	.....	.....	.....	.....	144	.....
Mexico	124	123	.....	.....	.....	.....	.....	.....	145	.....
Spain	125, 126	125, 127	.....	.....	.....	.....	130	.....	.....	.....
Russia	135	134	136	.....	.....	.....	.....	.....	142	.....

N. B.—The Art exhibit of the following countries is installed, wholly or in part, in the Main Building and catalogued in Part I., viz.:

Great Britain.
New South Wales.
Queensland.
Victoria.
South Australia.
New Zealand.
Cape of Good Hope.
France.
Germany.
Austria.
Denmark.
Egypt.
China.
Italy.
Japan.
Hawaii.
Switzerland.
Argentine Republic.
Chili.
Spain.
Portugal.
Russia.

The Spanish Government Building contains additional works of art.

The Women's Pavilion contains works of art from the following countries (Official Catalogue, Part III.), viz.:

United States.
Great Britain.
Canada.
France.
Italy.
Sweden.
Norway.

No. 101. ART GALLERY.

Size 365 by 210 feet.

Architect, H. J. SCHWARZMAN.

Contractor, R. J. DOBBINS.

Iron work furnished by EDGEMOOR IRON CO., PENCOYD ROLLING MILLS, KITTREDGE CORNICE CO.

Stone work furnished by SARGENT & CO., WESTHAM GRANITE CO., CONSHOHOCKEN STONE CO., S. F. PRINCE & CO., EXCELSIOR BRICK CO.

Glass furnished by BENJAMIN H. SHOEMAKER, WARD & CO., and J. M. ALBERTSON.

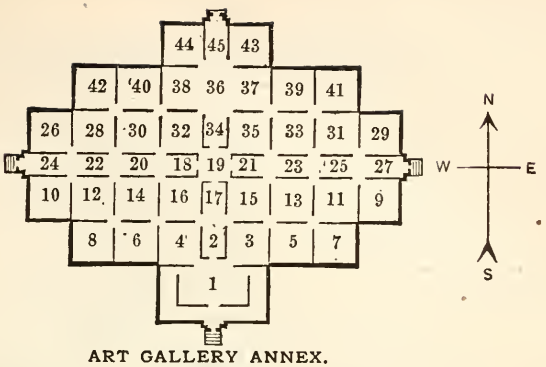
MEMORIAL HALL, built at a cost of $1,500,000, by the State of Pennsylvania and City of Philadelphia, is placed at the disposal of the Centennial Commission, to be used during the Exhibition as an Art Gallery, after which it is designed to make it the receptacle of an Industrial Art Museum, similar to the South Kensington Museum, at London. The design is modern renaissance, and the structure is fireproof. It covers an acre and a half, and is 365 feet long, 210 feet wide, and 59 feet high, over a basement 12 feet high. A dome, rising 150 feet above the ground, surmounts the centre, capped by a colossal ball, from which rises the figure of Columbia. The main front of this building looks southward, displaying a main entrance in the centre consisting of three arched doorways, a pavilion on each end, and two arcades connecting the pavilions with the centre. The entrance is 70 feet wide, to which there is a rise of 13 steps. Each of the doorways is 40 feet high and 15 feet wide, opening into a hall. In each pavilion there is a window 12½ feet by 34 feet, eight in all, which will be used for the display of stained glass, glass paintings, etc. The arcades designed to screen the long walls of the galleries each consist of five groined arches, and form promenades looking outward over the grounds and inward over open gardens extending back to the main wall of the building. These garden-plots are each 90 feet by 36 feet, ornamented in the centre with fountains, and intended to display statuary. The rear or north front of the building is of the same general character as the main front, but, in place of the arcade, has a series of arched windows, twelve in number, with the entrance in the centre. Between the pavilions is the grand balcony, a promenade 275 feet long and 45 feet wide, elevated 40 feet above the ground, and overlooking to the northward the grounds of the Park. On each front of the buildings the entrances open into halls, 82 feet long, 60 feet wide, and 53 feet high. These, in turn, open into the centre hall, 83 feet square, the ceiling rising over it 80 feet in height. From the east and west sides of this central hall extend the galleries, each 98 feet long, 48 feet wide, and 35 feet high. These galleries have temporary divisions for the better display of paintings, and, with the central hall, form a grand hall 287 feet long and 83 feet wide, capable of comfortably accommodating 8000 persons. From the galleries

doorways open into two smaller galleries, 89 feet long and 28 feet wide. These open north and south into apartments connecting with the pavilion rooms, and forming two side-galleries 210 feet long. Along the whole length of the north side of the main galleries and central hall extends a corridor 14 feet wide, opening on its north line into a series of rooms, twenty-three in number, designed for studios and smaller exhibition rooms. All the galleries and the central hall are lighted from above; the pavilions and studios from the sides. The pavilions and central hall are designed especially for the exhibition of sculpture. This building gives 75,000 square feet of wall space for painting, and 20,000 square feet of floor space for statues, etc. The skylights throughout are double, the upper being of clear glass and the under of ground-glass.

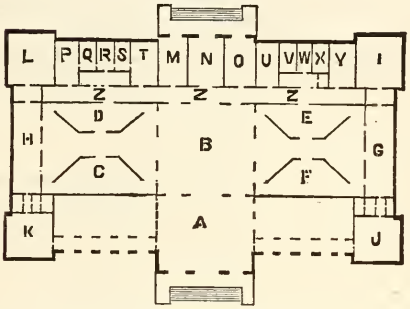
The erection of the building was begun July 4, 1874, and finished March 1, 1876.

No. 102. ANNEX TO ART GALLERY.

Great as is the space afforded in the Memorial Hall, the applications from American and foreign artists proved so greatly in excess of its capacity as to require the erection of a much more spacious building. This, though only of brick, harmonizes architecturally with the Memorial Hall, and is to be permanent. It stands just in the rear of the original Art Gallery. It affords 60,000 square feet of wall space available for paintings, and contains 30 galleries, each 40 feet square, besides 4 galleries, each 100 feet long by 54 feet wide, and two transverse central corridors, 20 feet wide.



ART GALLERY ANNEX.



AVENUE OF THE REPUBLIC.

MEMORIAL HALL.—Ground Plan.

A. Italy.
B. United States, Gt. Britain, Germany, France, Italy.
C. United States.
D. Great Britain.
E. France.
F. Germany.
G. Austria.
H. Spain and Sweden.
I. France.
J. Germany.
K. United States, Norway.
L. Great Britain.
M. Russia.
N. Italy.
O. Belgium.
P. Great Britain.
Q. Great Britain.
R. Great Britain.
S. Great Britain.
T. Great Britain.
U. Italy.
V. Italy.
W. Italy.
X. United States.
Y. United States.
Z. Great Britain. United States. Germany and France.

ART GALLERY ANNEX.—Ground Plan.

1. Italy.
2. Italy.
3. Italy.
4. Italy.
5. Netherlands.
6. United States.
7. Norway. Denmark.
8. United States.
9. Argentine Republic. Chili. Mexico.
10. United States.
11. Sweden.
12. United States.
13. Netherlands.
14. United States.
15. Netherlands.
16. United States. Superintendent's Office.
17. Italy.
18. United States.
19. Italy.
20. United States.
21. France. Netherlands.
22. United States.
23. Belgium. Netherlands.
24. United States.
25. Spain. Sweden.
26. Canada.
27. Portugal. Argentine Republic. Brazil.
28. United States.
29. Portugal. Brazil.
30. United States.
31. Spain.
32. France.
33. Belgium.
34. France.
35. France.
36. France.
37. France.
38. France.
39. Belgium.
40. United States.
41. Belgium.
42. United States.
43. France.
44. United States.
45. France.

SYNOPSIS OF THE CLASSIFICATION.

LOCATION.	DEPARTMENTS.	CLASSES.	GROUPS.
MAIN BUILDING.	I. MINING AND METALLURGY.	100—109	Minerals, Ores, Stone, Mining Products.
		110—119	Metallurgical Products.
		120—129	Mining Engineering.
	II. MANUFACTURES.	200—205	Chemical Manufactures.
		206—216	Ceramics, Pottery, Porcelain, Glass, etc.
		217—227	Furniture, etc.
		228—234	Yarns and Woven Goods of Vegetable or Mineral Materials.
		235—241	Woven and Felted Goods of Wool, etc.
		242—249	Silk and Silk Fabrics.
		250—257	Clothing, Jewelry, etc.
		258—264	Paper, Blank Books, Stationery.
		265—271	Weapons, etc.
		272—279	Medicine, Surgery, Prothesis.
		280—284	Hardware, Edge Tools, Cutlery, and Metallic Products.
		285—291	Fabrics of Vegetable, Animal, or Mineral Materials.
		292—296	Carriages, Vehicles, and Accessories.
	III. EDUCATION AND SCIENCE	300—309	Educational Systems, Methods, and Libraries.
		310—319	Institutions and Organizations.
		320—329	Scientific and Philosophical Instruments and Methods.
		330—339	Engineering, Architecture, Maps, etc.
		340—349	Physical, Social, and Moral Condition of Man.
ART GALLERY.	IV. ART.	400—409	Sculpture.
		410—419	Painting.
		420—429	Engraving and Lithography.
		430—439	Photography.
		440—449	Industrial and Architectural Designs, etc.
		450—459	Ceramic Decorations, Mosaics, etc.
MACHINERY BUILDING.	V. MACHINERY.	500—509	Machines, Tools, etc., of Mining, Chemistry, etc.
		510—519	Machines and Tools for working Metal, Wood, and Stone.
		520—529	Machines and Implements of Spinning, Weaving, etc.
		530—539	Machines, etc., used in Sewing, Making Clothing, etc.
		540—549	Machines for Printing, Making Books, Paper Working, etc.
		550—559	Motors, Power Generators, etc.
		560—569	Hydraulic and Pneumatic Apparatus.
		570—579	Railway Plant, Rolling Stock, etc.
		580—589	Machinery used in Preparing Agricultural Products.
		590—599	Aerial, Pneumatic, and Water Transportation.
			Machinery, and Apparatus, especially adapted to the requirements of the Exhibition.
AGRICULTURAL BUILDING.	VI. AGRICULTURE.	600—609	Arboriculture and Forest Products.
		610—619	Pomology.
		620—629	Agricultural Products.
		630—639	Land Animals.
		640—649	Marine Animals, Fish Culture, and Apparatus.
		650—662	Animal and Vegetable Products.
		665—669	Textile Substances of Vegetable or Animal origin.
		670—679	Machines, Implements, and Processes of Manufacture.
		680—689	Agricultural Engineering and Administration.
		690—699	Tillage and General Management.
HORTICULTURAL BUILDING.	VII. HORTICULTURE.	700—709	Ornamental Trees, Shrubs, and Flowers.
		710—719	Hot Houses, Conservatories, Graperies.
		720—729	Garden Tools, Accessories of Gardening.
		730—739	Garden Designing, Construction, and Management.

CLASSIFICATION.

DEPARTMENT IV.—ART.

SCULPTURE.

CLASS 400.—Figures and groups in stone, metal, clay, or plaster.
CLASS 401.—Bas-reliefs, in stone or metal; electrotype copies.
CLASS 402.—Medals, pressed and engraved; electrotypes of medals.
CLASS 403.—Hammered and wrought work—*repoussé* and *rehaussé* work, embossed and engraved relief work.
CLASS 404.—Cameos, intaglios, engraved stones, dies, seals, etc.
CLASS 405.—Carvings in wood, ivory, and metal.

PAINTING.

CLASS 410.—Paintings in oil on canvas, panels, etc.
CLASS 411.—Water color pictures; aquarelles, miniatures, etc.
CLASS 412.—Frescoes, cartoons for frescoes, etc.
CLASS 413.—Painting with vitrifiable colors. Pictures on porcelain, enamel, and metal.

ENGRAVING AND LITHOGRAPHY.

CLASS 420.—Drawings with pen, pencil, or crayons.
CLASS 421.—Line engravings from steel, copper, or stone.
CLASS 422.—Wood engravings.
CLASS 423.—Lithographs, zincographs, etc.
CLASS 424.—Chromo-lithographs.

PHOTOGRAPHY.

CLASS 430.—Photographs on paper, metal, glass, wood, fabrics, or enamel surfaces.
CLASS 431.—Prints from photo-relief plates, carbon prints, etc.
CLASS 432.—Photo-lithographs, etc.
CLASS 433.—Photographic apparatus and supplies.

INDUSTRIAL AND ARCHITECTURAL DESIGNS, MODELS, AND DECORATIONS.

CLASS 440.—Industrial designs.
CLASS 441.—Architectural designs; studies and fragments, representations and projects of edifices; restorations from ruins and from documents.
CLASS 442.—Decoration of interiors of buildings.
CLASS 443.—Artistic hardware and trimmings, artistic castings, forged metal work for decoration, etc.

DECORATION WITH CERAMIC AND VITREOUS MATERIALS, MOSAIC AND INLAID WORK.

CLASS 450.—Mosaic and inlaid work in stone.
CLASS 451.—Mosaic and inlaid work in tiles, tessaræ, glass, etc.
CLASS 452.—Inlaid work in wood and metal, parquetry, tables, etc.
CLASS 453.—Stained glass.
CLASS 454.—Miscellaneous objects of art.

INDEX TO ADVERTISEMENTS.

	PAGE
Burke, Edward and John,	64
Brooke Hall Female Seminary,	17
Brook, Jonas, & Brothers,	65
Blood, Wolfe, & Co	64
Drown, W. A., & Co	17
French Restaurant,	120
Goode, Thomas, & Co	64
Haseltine Galleries,	17
Lippincott, J. B., & Co	120
Longacre & Co	137
McGee, John G., & Co	120
Philadelphia Demokrat,	120
Philadelphia Evening Chronicle,	17
Pennsylvania Rail Road,	124
Radway's, Dr., Medicines,	136
The American Newspaper Union,	125
The Sun Newspaper,	121
Wilkins, Wm., & Co	120
West Philadelphia Passenger Railway Company,	Second page of cover.

ESTABLISHED 1810.

W. A. BROWN & CO.

SUPERIOR

UMBRELLAS AND PARASOLS.

Manufactories in Philadelphia.



TRADE-MARK.

WAREROOMS:

246 Market Street, PHILADELPHIA.

498 & 500 Broadway, NEW YORK.



HASELTINE GALLERIES,

1125 and 1127 Chestnut St., Philadelphia.

BROOKE HALL

FEMALE SEMINARY,

MEDIA, DELAWARE CO., PA.,

An Institution of the highest order in all points.

For Catalogues, apply to

M. L. EASTMAN, Principal,

MEDIA, PA.

PHILADELPHIA

EVENING CHRONICLE,

THE ONLY

Daily Democratic Newspaper in the City.

CIRCULATION EXCEEDED BY BUT ONE AFTERNOON PAPER.

HAS A SPECIAL MASONIC DEPARTMENT.

PRICE, TWO CENTS.

DENNIS F. DEALY, Publisher,

21 SOUTH SEVENTH STREET.

UNITED STATES.

[Works of Art marked with an asterisk (*) are for sale. Information may be obtained at the Art Bureau, Memorial Hall.]

(*Memorial Hall, Central Gallery, West.*)

*OIL PAINTINGS.

NO.	ARTIST.	TITLE.	OWNER.
1	Story, G. H., New York,	The Young Student.	David Groesbeck.
1*a*	Healy, G. P. A., Chicago,	Portrait.	
2	Dolph, J. H., New York,	The Antiquarian.	Artist.
3	Pohle, H., New York,	*The Burning Castle.	E. Franke.
4	Whittredge, W., New York,	The Window.	R. L. Stuart.
5	La Farge, John, New York,	Bishop Berkeley's Rock, Newport.	Artist.
6	Townsend, Chas. E., New York,	*Lion and Lioness.	Artist.
7	Perdicaris, Ion, Trenton, N. J.,	Moorish Interior.	Artist.
8	Hicks, Thomas, New York,	Portrait—Mrs. MacDaniel.	
9	Hubbard, R. W., New York,	*Coming Storm.	Artist.
10	Matthews, W. T., New York,	Globe of Fish.	Artist.
11	Bunner, A. F., Munich,	*Bavarian Landscape.	Artist.
12	Van Elten, K., New York,	Clearing Off—Adirondacks.	G. Chesterman.
13	Du Bois, C. E., New York,	*Willows at East Hampton, L. I.	Artist.
14	Colman, S., New York,	*The Merchants of Laghouat en route between Tell and the Desert, Algeria.	Artist.
15	Pine, Theodore, Chicago,	Portrait of Mrs. Doane.	
16	Miller, Charles H., New York,	Sunset at Queen's, N. Y.	Robert Gordon.
17	Kensett, J. F. (deceased),	Narragansett Coast	R. M. Olyphant.
18	Hamilton, J., Philadelphia,	*"Break, break, break, On thy cold gray stones, O sea!"	Earle & Sons.
19	Durand, A. B., New York,	Studies from nature.	Artist.
20	Boughton, G. H., New York,	The Pilgrims' Sunday Morning.	R. L. Stuart.
21	Baker, G. A., New York,	Portrait—C. L. Elliott.	New York Academy of Design.
22	Benson, Eugene, New York,	Sirocco, Venice.	Artist.
23	Gifford, S. R., New York,	Bronx River.	H. C. Fahnestock.
24	Gifford, S. R., New York,	On the Nile.	J. J. Nesmith.
25	De Haas, M. F. H., New York,	Moonrise and Sunset.	E. D. Morgan.
26	Bellows, A. F., New York,	*Sunday in Devonshire	Artist.

NO.	ARTIST.	TITLE.	OWNER.
27	Gifford, S. R., New York,	Pallanza, Lago Maggiore.	M. Southwick.
28	Mayer, Constant, New York,	*Love's Melancholy.	S. M. Schafer.
29	Conarroe, G. W., Philadelphia,	Ethel.	Artist.
30	Audubon, J. J. (deceased),	Canada Otter.	Edward Harris.
31	Beeson, Miss E. L., Pittsburg,	*Ophelia.	Artist.
32	White, Edwin, New York,	*The Bargello, Florence.	Artist.
33	Cole, Thomas (deceased),	The Mountain Ford.	J. Taylor Johnston.
34	Huntington, D., New York,	Portrait.	Artist.
35	Van Elten, K., New York,	The Grove in the Heath.	G. Chesterman.
36	Holbrook, H. J., New York,	Portrait.	Artist.
37	MacKnight, Mrs. S. R., New York,	Winter.	Artist.
38	Hubbard, R. W., New York,	Early Autumn.	Judge Benedict.
39	Cropsey, J. F., New York,	Old Bonchurch, Isle of Wight.	Artist.
40	Johnson, David, New York,	Scenery on the Housatonic.	Mrs. J. Bullard.
41	Lambdin, G. C., Philadelphia,	Roses.	Artist.
42	Furness, W. H., Jr. (deceased),	Portrait.	H. H. Furness.
43	Wood, T. W., New York,	The Yeteran.	C. S. Smith.
44	Wood, T. W., New York,	The Recruit.	C. S. Smith.
45	Huntington, D., New York,	Portrait—G. T. Trimble.	New York Hospital.
46	Perry, E. Wood, New York,	Young Franklin.	Artist.
47	Kensett, J. F. (deceased),	View near Northampton.	R. L. Stuart.
48	Johnson, Eastman, New York,	Heel-Taps.	
49	Eakins, Thos., Philadelphia,	Chess-Players.	Artist.
50	Waugh, S. B., Philadelphia,	The Cabinet.	Artist.
51	Wood, T. W., New York,	The Contraband.	C. S. Smith.
52	Stuart, Gilbert (deceased),	Portrait—Mrs. S. Eliot.	C. W. Eliot.
53	Loop, H. A., New York,	*Aphrodite.	Artist.
54	Thompson, A., Boston,	*View near Honfleur, Normandy.	Artist.
55	Whittredge, W., New York,	A Hundred Years Ago.	R. M. Olyphant.
56	Birch, Thomas (deceased),	Marine.	Thos. Birch.
57	White, Edwin, New York,	*The Antiquary.	Artist.
58	Miller, C. H., New York,	Returning to the Fold.	Mrs. J. M. Miller.
59	Durand, A. B., New York,	Portrait—Gouverneur Kemble.	Gouverneur Kemble.
60	Allston, Washington (deceased),	Landscape.	Family of Mrs. S. A. Eliot.
61	Weisman, W. H., Philadelphia,	Cape Ann Rocks.	F. Gutekunst.

NO.	ARTIST.	TITLE.	OWNER.
62	Miller, C. H., New York,	Old Mill at Springfield, L.I.	Mrs. J. M. Miller.
63	Guy, S. J., New York,	Evening.	J. M. Falconer.
64	Thom, J. C., New York,	Day (panel).	James M. Burt.
65	Thom, J. C., New York,	Night (panel).	James M. Burt.
66	Perry, E. Wood, New York,	Kept In.	Artist.
67	Thompson, A. Wordsworth, New York,	On the Sands, East Hampton, L.I.	Artist.
68	Maynard, G. W., New York,	*Vespers in Antwerp.	Artist.
69	Anderson, A. A., New York,	Scene in Cairo.	J. J. Milbank.
70	Anderson, A. A., New York,	Roumanian Peasant Girl.	J. J. Milbank.
71	Benson, Eugene, Rome,	The Strayed Masquers.	C. H. Sneff.
72	Johnson, Eastman, New York,	What the Sea Says.	B. Field.
73	Gifford, S. R., New York,	Lake Geneva.	Wm. Goddard.
74	Twibill, G. W. (deceased),	Portrait—Colonel Trumbull.	New York Academy of Design.
75	Stuart, Gilbert (deceased),	Portrait—Mrs. N. Coffin.	Nath. Appleton.
76	Stone, W. O. (deceased),	Portrait—Charles King.	Union Club, New York.
77	Allston, Washington (deceased),	Portrait of himself when young.	
78	Mount, W. S. (deceased),	Husking Corn.	Mr. Kemble.
79	Gray, H. Peters, New York,	The Model from Cadore.	E. Mitchell.
80	Morse, S. F. B. (deceased),	Portrait.	Dr. D. Olyphant.
81	Woodville, R. C. (deceased),	Card-Players.	W. J. Hoppin.
82	Greene, E. D. E., New York,	Ideal head.	National Academy of Design, New York.
83	Copley, J. S. (deceased),	Portrait—Mrs. T. Boylston.	Harvard University.
84	Morse, S. F. B. (deceased),	Portrait.	Dr. D. Olyphant.
85	Copley, J. S. (deceased),	Portrait—John Adams.	Harvard University.
86	Allston, Washington (deceased),	Spalatro's Vision of the Bloody Hand.	J. T. Johnston.
87	Stuart, Gilbert (deceased),	Portrait—James Rivington.	W. H. Appleton.
88	Allston, Washington (deceased),	Rosalie.	N. Appleton.
89	Newton, Stuart (deceased),	The Importunate Author.	E. N. Perkins.
90	Newton, Stuart (deceased),	Portrait—Washington Irving.	Mr. T. W. Storrows.
91	Copley, J. S. (deceased),	Portrait—T. Boylston.	Harvard University.
92	Smibert, J. S. (deceased),	Portrait—Bishop G. Berkeley.	Massachusetts Historical Society.
93	Stuart, Gilbert (deceased),	Portrait—Chief-Justice John Jay.	J. C. Jay.
94	Blashfield, E. H., Brooklyn,	*Treasure-Trove.	Artist.
95	Brown, J. G., New York,	Curling Match.	Robert Gordon.
96	Johnson, Eastman, New York,	*Prisoner of State.	Artist.

NO.	ARTIST.	TITLE.	OWNER.
97	Hubbard, R. W., New York,	Glimpse of the Adirondacks.	R. M. Olyphant.
98	Maynard, G. W., New York,	*"1776."	Artist.
99	Lawrie, Alex., New York,	Autumn in the Hudson Highlands.	Henry Marks.
100	Johnson, David, New York,	Scenery on the Housatonic.	L. A. Lanthier.
101	Irving, J. B., New York,	The Bookworm.	A. McL. Agnew.
102	Parton, A., New York,	Solitude.	Wm. D. Judson.
103	Bridgeman, F. A., New York,	Kybelian Woman.	Hon. Alex. McCue.
104	Brown, G. L., Boston,	*Venice.	Artist.
105	White, Edwin, New York,	*Sabbath of the Emigrant.	Artist.
106	Machen, W. H., Toledo,	Still Life—game.	Artist.
107	Granbery, Miss V., New York,	*Spring Flowers.	Artist.
108	Johnson, Frost, New York,	A Thirsty Party.	Artist.
109	Whittredge, W., New York,	A Home by the Sea.	S. J. Harriott.
110	Gifford, R. Swain, New York,	Boats at Boulah, on the Nile.	L. Tiffany.
111	Brenner, C. C., Louisville,	Landscape.	Artist.
112	Durand, A. B., New York,	Il Pappagallo.	Artist.
113	Perry, E. Wood, New York,	The Weaver.	Artist.
114	Niemeyer, J. H., New Haven,	*Gutenberg Inventing Movable Types.	Artist.
115	Moran, Edward, New York,	The Hawk's Nest.	Mrs. H. E. Lawrence.
116	Stewart, J. L., Philadelphia,	Miguel.	W. S. Stewart.
117	Fitch, J. L., New York,	In the Woods.	Artist.
118	Johnson, Eastman, New York,	The Old Kentucky Home.	R. L. Stuart.
119	Whittredge, W., New York,	The Old Hunting-Grounds.	J. W. Pinchot.
120	De Crano, F. F., Philadelphia,	The Celestial Model.	Artist.
121	Cameron, Miss K., Paris,	*Happy as a Queen.	Artist.
122	Wright, Geo., Philadelphia,	*One too Many.	Artist.
123	Shade, W. A., New York,	Tantalizing.	Artist.
124	Gifford, R. Swain, New York,	*Egyptian Fountain.	Artist.
125	Moran, Edward, New York,	Minot Ledge Light.	Mrs. H. E. Lawrence.
126	Minor, R. C., New York,	Daybreak.	Artist.
127	Miller, C. H., New York,	The Road to the Mill.	J. L. Melcher.
128	McEntee, J., New York,	October Afternoon.	H. G. De Forest.
129	Guy, S. J., New York,	Solitaire.	J. M. Falconer.
130	Henry, E. L., New York,	Morning Call in 1800.	C. S. Smith.
131	Gignoux, R., New York,	Spring.	T. Messenger.
132	Champney, J. W., Boston,	"Your Good Health."	T. Wiggleworth.

NO.	ARTIST.	TITLE.	OWNER.
133	Brown, J. H., Philadelphia,	Case of miniatures on ivory.	Artist.
133*a*	Cooper, P. F., Philadelphia,	*Madonna—on ivory.	Artist.
133*b*	Munger, Geo.,	Nathaniel Jocelyn—miniature on ivory.	N. Jocelyn.
134	Cariss, H. T., Philadelphia,	Blind-Man's-Buff.	Artist.
135	Benson, Eugene, Rome,	San Giorgio, Venice.	Artist.
136	Benson, Eugene, Rome,	Afternoon on the Lagoon.	Artist.
137	Morse, S. F. B. (deceased),	Portrait—Major Paulding.	New York City Hall
138	Woodville, R. C. (deceased),	Fancy head.	J. T. Johnston.

(*Memorial Hall, Gallery C.*)

SCULPTURE.

NO.	ARTIST.	TITLE.	OWNER.
139	Roberts, Howard, Philadelphia,	The First Pose.	Artist.
140	Bailly, J.W., Philadelphia,	*Spring.	Artist.
141	Connelly, P. F., Florence,	*Honor arresting the Triumph of Death.	Artist.
142	Connelly, P. F., Florence,	*Ophelia.	Artist.

OIL PAINTINGS.

NO.	ARTIST.	TITLE.	OWNER.
143	Johnson, Eastman, New York,	Catching the Bee.	Miss Jones.
144	Benson, Eugene, Rome,	Interior of St. Mark's, Venice.	Mrs. M. L. Dickinson.
145	Hart, Wm., New York,	Keene Valley, Adirondacks.	Rev. F. L. Robbins.
146	Baker, George A., New York,	Portrait of a child.	Mrs. D. C. Sturgis.
147	Sully, Thomas (deceased),	Portrait—Miss Rosalie Sully.	Mrs. Darley.
148	Bristol, J. B., New York,	*Lake Memphremagog.	Artist.
149	Gay, W. Allen, Boston,	*Windmills of Delftshaven, Holland.	Artist.
150	Vanderlyn, J. (deceased),	Ariadne.	W. H. Eisenbrey.
151	Thompson, Harry I., New Haven,	Portrait.	Artist.
152	Waugh, S. B., Philadelphia,	General Grant.	
153	Elliott, C. L., New York,	Portrait.	E. D. Morgan.
154	Page, Wm., New York,	Shakspeare, after the Death-Mask.	Artist.
155	McEntee, J., New York,	November.	
156	Waterman, M., Boston,	*Gulliver in Liliput.	Artist.
157	Morrell, Mrs. I. Robinson, Paris,	*First Battle of the Puritans, won by Miles Standish.	Artist.
158	Briscoe, F. D., Philadelphia,	Breezy Day off Dieppe.	
159	Jones, H. Bolton, Baltimore,	*The Ferry Inn.	Artist.
160	Moore, H. H., New York,	The Moorish Merchant.	Artist.
161	Nilson, H. M., Paris,	Portrait.	

NO.	ARTIST.	TITLE.	OWNER.
162	Thompson, H. I., New Haven,	Portrait.	Col. Juan Lewis.
163	Neagle, John (deceased),	Portrait—Gilbert Stuart.	Boston Athenæum.
164	Lewis, E. D., Philadelphia,	East Park, Philadelphia.	Artist.
165	Moran, Edward, New York,	The Winning Yacht.	W. A. Cauldwell.
166	Beard, J. H., New York,	The Attorney and his Clients.	G. F. Gilman.
167	La Farge, J., New York,	*Hollyhocks.	Artist.
168	Rothermel, P. F., Philadelphia,	Battle of Gettysburg.	Commonwealth of Pennsylvania.
169	Champney, J. W., Boston,	"Don't touch!"	Mr. Cheny.
170	Bridgeman, F. A., New York,	Flower of the Harem.	H. E. Nesmith.
171	Winner, W. E., Philadelphia,	Portrait.	Artist.
172	Alexander, F., Boston,	Portrait.	W. Willard.
173	Healy, G. P. A., Chicago,	Portrait.	
174	Mifflin, Lloyd, Columbia, Pa.,	Rome, from Marino.	Artist.
175	Rosenthal, T. E., Munich,	Elaine.	Mrs. R. E. Johnson.
176	Williams, I. L., Philadelphia,	*View near Meriden, Connecticut.	Artist.
177	Homer, Winslow, New York,	Snap the Whip.	J. H. Sherwood.
178	Gifford, S. R., New York,	The Golden Horn.	W. J. Peake.
179	Hetzel, Geo., Pittsburg,	*Forest Scene in Pennsylvania.	Artist.
180	Tait, A. F., Long Lake, N. Y., and Hart, J. M., New York,	The Portage—Waiting for the Boats.	J. B. Blossom.
181	Armstrong, D. M., New York,	*Twilight on the Tiber.	Artist.
182	McEntee, J., New York,	Saturday Afternoon.	M. C. D. Borden.
183	Suydam, J. A. (deceased),	Hudson River.	Smith Clift.
184	Hill, Thomas, San Francisco,	Donner Lake.	Hon. L. Stanford.
185	Johnson, Eastman, New York,	The Wandering Fiddler.	J. T. Johnston.
186	Gifford, S. R., New York,	Fishing Boats of the Adriatic.	C. S. Smith.
187	Irving, J. B., New York,	The End of the Game.	J. H. Sherwood.
188	Richards, W. T., Philadelphia,	The Wissahickon.	George Whitney.
189	Pearce, Charles S., Boston,	*L'Italienne.	Artist.
190	Kollock, Miss M., New York,	*Midsummer in the Mountains.	Artist.
191	Clowes, Miss C. M., Poughkeepsie,	*Cattle at the Brook.	Artist.
192	Kollock, Miss M., New York,	Early Morning in the Mountains.	Artist.
193	Guy, S. J., New York,	Supplication.	J. H. Sherwood
194	Huntington, D., New York,	Sowing the Word.	Anson P. Stokes.
195	Johnson, Eastman, New York,	The Old Stage-Coach.	George Whitney.

NO.	ARTIST.	TITLE.	OWNER.
196	Moran, Thomas, Newark, N.J.,	*The Mountain of the Holy Cross, Colorado.	Artist.
197	Suydam, J. A. (deceased),	Berkeley's Seat, Newport.	New York Academy of Design.
198	Colyer, V., New York,	Pueblo—Indian village.	Artist.
199	Sully, Thomas (deceased),	Portrait—Mrs. T. Sully.	Miss Sully.
200	Gray, H. Peters, New York,	The Apple of Discord.	R. Olyphant.
201	Whittredge, W., New York,	Twilight on the Shawangunk Mountains.	W. B. Smith
202	Lea, Anna M., Philadelphia,	Portrait.	Mrs. Potter.
203	Martin, H., New York,	Adirondacks.	Century Club.
204	Seligman, Mrs. E., Tarrytown, N.J.,	Love and Pride.	Artist.
205	Miller, C. H., New York,	A Long Island Homestead.	F. Sheldon.
206	Waller, Frank, New York,	Tombs of the Caliphs, Cairo.	Mrs. M. Waller.
207	Bierstadt, A., New York,	The Settlement of California, Bay of Monterey, 1770.	Artist.
208	Smillie, George H., New York,	Lake in the Woods.	T. Robertson.
209	Parton, Arthur, New York,	Stirling Castle.	Bryce Gray.
210	Cole, Thomas (deceased),	Kenilworth Castle.	J. T. Johnston.
211	Story, G. H., New York,	Echoes of the Sea.	Artist.
212	Waugh, Ida, Philadelphia,	An Egyptian.	Artist.
213	Story, G. H., New York,	The Young Mother.	Artist.
214	Staigg, R. M., Boston,	*The Chestnut-Gatherer.	Artist.
215	Weir, J. F., New Haven,	The Gun-Foundry.	R. P. Parrott.
216	Rothermel, P. F., Philadelphia,	Amy Robsart interceding for Leicester.	C. Blanchard.
217	James, Frederick, Philadelphia,	*Interior of a Smoking-Car.	Artist.
218	Neagle, John (deceased),	Portrait of John Taggart, First President of Farmers' and Mechanics' Bank, Philadelphia.	Farmers' and Mechanics' Bank.
219	Smith, T. Henry, Philadelphia,	Portrait.	M. Drinker.
220	Healy, G. P. A., Chicago,	Portrait.	
221	Johnson, David, New York,	Old Man of the Mountain, Franconia Notch, N.H.	Mr. Taft.
222	McEntee, J., New York,	Autumn.	George Whitney.
223	Shattuck, A. D., New York,	Lake Champlain.	J. M. Telford.
224	Gardner, Miss E. J., Paris,	Corinne.	Artist.
225	Loop, Mrs. H. A., New York,	Portrait.	Mrs. Alexander.
226	Le Clear, Thomas, New York,	Portrait—Parke Godwin.	Artist.
227	Dix, C. Templeton, New York,	Capri.	Century Club.
228	Herzog, H., Philadelphia,	*Sentinel Rock, Yosemite.	Artist.
229	Leutze, E. (deceased),	The Iconoclast.	R. M. Olyphant.
230	Wood, T. W., New York,	Village Post-Office.	C. S. Smith.

NO.	ARTIST.	TITLE.	OWNER.
231	Kensett, J. F. (deceased),	*Conway Valley, N.H.	R. E. Moore.
232	Hicks, Thos., New York,	General Meade.	Artist.
233	Colyer, V., New York,	Cascade Mountains.	J. M. Stearns.
234	Minor, R. C., New York,	*Evening.	Artist.
235	Hunt, William, Boston,	Portrait.	Mr. Schlesinger.
236	Hart, Jas. M., New York,	A Summer Memory of Berkshire.	E. D. Morgan.
237	Waugh, S. B., Philadelphia,	Lost Jewels found.	Mrs. Joseph Harrison.
238	Bridgeman, F. A., New York,	Nubian Story-Teller.	S. H. Keep.
239	Inman, Henry (deceased),	Hackett as Rip Van Winkle.	Miss C. C. Hackett.
240	Brown, C. V., Philadelphia,	Portrait.	W. J. Clark, Jr.
241	Satterlee, W., New York,	*Marguerite.	Artist.
242	De Luce, P., New York,	A Dish for my Lord.	Artist.
243	Wharton, P. F., Philadelphia,	Perdita—Winter's Tale.	Artist.
244	Van Elten, K., New York,	*Russell Falls, Adirondacks.	Artist.
245	Johnson, David, New York,	*Brook study, Orange Co., N.Y.	Artist.
246	Lippincott, W. H., Philadelphia,	The Ducks' Breakfast.	Artist.
247	Millet, F. D., Boston,	*Turkish Water-Seller.	Artist.
248	Heade, M. J., New York,	*Off the California Coast.	Artist.
249	Moran, Peter, Philadelphia,	Return of the Herd.	Artist.
250	Sonntag, W. L., New York,	*Sunset in the Wilderness.	Artist.
251	Bridgeman, F. A., New York,	Bringing in the Corn.	A. A. Low.
252	Schussele, C., Philadelphia,	The Iron-Worker.	Mrs. Joseph Harrison.
253	Moran, Edward, New York,	Moonlight in New York Bay.	Artist.
254	Hicks, Thos., New York,	Portrait—Dr. Gray.	Mrs. B. Knower.
255	Elliott, C. L. (deceased),	Portrait—Dr. Cheesman.	New York Hospital.
256	Miller, C. H., New York,	High Bridge, New York.	Artist.
257	Weber, Philip, Philadelphia,	*Twilight.	Artist.
258	Henry, E. L., New York,	Old Clock on the Stairs.	R. Gordon.
259	Johnson, Eastman, New York,	*Milton and his Daughters.	Artist.
260	Sartain, Emily, Philadelphia,	*The Reproof.	Artist.
261	Irving, J. B., New York,	Cardinal Wolsey and his Friends.	P. Van Volkenburg.
262	Beard, W. H., New York,	March of Silenus.	Buffalo Fine Art Gallery.
263	Baker, G. A., New York,	Portrait.	Walter Hatch.
264	Eakins, Thomas, Philadelphia,	Portrait—Dr. Rand.	Dr. Rand.
265	Haseltine, W. S., Philadelphia,	*Ruins of Roman Theatre, Sicily.	Artist.

NO.	ARTIST.	TITLE.	OWNER.
266	Lambdin, G. C., Philadelphia,	Roses.	Artist.
267	Homer, Winslow, New York,	The American Type.	Artist.
268	Thompson, A. Wordsworth, New York,	Virginia in the Olden Time.	D. H. McAlphine.
269	Markham, C. C., New York,	My Grandmother (93 years old).	Artist.
270	La Farge, J., New York,	Wreath of Flowers.	G. V. Hecker.

(*Annex, Gallery No. 16.*)

AMERICAN SOCIETY OF PAINTERS IN WATER COLORS, OF NEW YORK.

NO.	ARTIST.	TITLE.	OWNER.
271	Hennessey, W. J., New York,	The By-Path.	Mrs. Charles Post.
272	Hennessey, W. J., New York,	An Old Song.	Mrs. C. P. Hemenway.
273	Scott, Wm. Wallace, New York,	*Margaretta B. Moore	Artist.
274	Fenn, Harry, New York,	Old Convent Gate, St. Augustine, Florida.	Joseph Wilde.
275	Burling, Gilbert, New York,	*Study of Owl and Ducks.	Artist.
276	Tiffany, Louis C., New York,	The Old and New Mosques, Ali Hassimin and Sultan El Carmel, Cairo.	J. Holme Maghee.
277	Tiffany, Louis C., New York,	Lazy Life in the East—Gate of the Sub-Treasury, Tangiers.	John Taylor Johnston.
278	Falconer, J. M., Brooklyn,	*No. 78, Cross Street, Boston.	Artist.
279	Smillie, James D., New York,	Study from Nature, Ausable River.	Artist.
280	Tiffany, Louis C., New York,	Dignity in Servitude.	J. T. Smith.
281	Magrath, William, New York,	An Irish Thatched Cottage.	Charles S. Smith.
282	Perry, E. Wood, New York,	*Anne Hathaway's Kitchen.	Artist.
283	Colman, Samuel, New York,	Mosque of Sidi Hallui, Tlemcen, Algiers.	J. Jacob Astor.
284	De Golier, Miss, New York,	Purple Iris.	Artist.
285	De Golier, Miss, New York,	Wild Flowers and Grasses.	Artist.
286	Tiffany, Louis C., New York,	*Street Scene, Dinan.	Artist.
287	Boughton, George H., London,	Normandy Girl caught in a Shower.	Robert L. Stuart.
288	Eaton, J. O., New York,	Out of Mischief.	E. M. Clark.
289	Tiffany, Louis C., New York,	As Good as New. (Swiss scene.)	J. Milbank.
290	Nicoll, J. C., New York,	Moonrise.	Bryan H. Smith.
291	Falconer, J. M., Brooklyn,	*Robert Fulton's House in Philadelphia, 121 South Second Street.	Artist.
292	Baldwin, A. H., New York,	*An Unskilful Gardener.	Artist.
293	Colman, Samuel, New York,	Corpus Christi Day, Seville, Spain.	John Sherwood.
294	Hart, William, New York,	Mount Madison, N.H.	Nicholas Saltus.
295	Satterlee, Walter, New York,	*One Hundred Years Ago.	Artist.
296	Farrer, Henry,	*Windy Day on Long Island.	Artist.
297	Jones, Alfred,	Feeding Dolly.	Jas. D. Smillie.
298	Richards, William T., Philadelphia,	Old Trees at Atlantic City.	Geo. Whitney.

NO.	ARTIST.	TITLE.	OWNER.
299	Boughton, George H., London,	By the Sea.	Wm. T. Richards.
300	McDonald, Margaret, New York,	*Head of a Shepherd Dog.	Artist.
301	Fisher, Ellen Thayer, New York,	American Velvet Leaf.	Artist.
302	Farrer, Henry, New York,	*Sunrise, East River.	Artist.
303	Colman, Samuel, New York,	Street Scene, Morlaix.	Artist.
304	Perry, E. Wood, Jr., New York,	*A Month's Darning.	Artist.
305	Bricher, A. T., New York,	*Foggy Morning, Grand Menan.	Artist.
306	Homer, Winslow, New York,	*The Trysting-Place.	Artist.
307	Gifford, R. Swain, New York,	*Early Morning.	Artist.
308	Homer, Winslow, New York,	*In the Garden.	Artist.
309	Smillie, James D., New York,	*A Scrub Race on the Western Plains.	Artist.
310	Thomas, Mrs., New York,	Phlox and Larkspur.	Artist.
311	Falconer, J. M., Brooklyn,	*House where Thomas Jefferson lived.	Artist.
312	Thomas, Mrs., New York,	Flowering Almond.	Artist.
313	Scott, Wm. Wallace, New York,	An Old Salt.	J. McDougal.
314	Colman, Samuel, New York,	Street Scene, Dinan.	Artist.
315	Fredericks, Alfred, New York,	The Scare-Crow.	Jas. R. Osgood.
316	Brown, J. G., New York,	Watering-Place Pleasures.	I. T. Williams.
317	Magrath, William, New York,	On the Hill-Side.	A. Foster Higgins.
318	Fredericks, Alfred, New York,	*Romeo and Juliet.	Artist.
319	Nefflin, Paul H., New York,	Boy's Dream of Christmas.	Artist.
320	Colman, Samuel, New York,	Street Scene, Caen.	Mrs. Horace Waters.
321	Eaton, J. O., New York,	The Little Prisoner.	Mrs. J. O. Eaton.
322	Colman, Samuel, New York,	Distant View of Rome.	Robert Gordon.
323	Symington, James, New York,	*Dolly's Breakfast.	Artist.
324	Homer, Winslow, New York.	*Flower for the Teacher.	Artist.
325	McDonald, Margaret, New York,	Primroses.	Townsend Cox.
326	Hill, J. W., New York,	Hollyhocks.	Miss H. Ripley.
327	Smith, F. Hopkinson, New York,	*"In the Darkling Wood."	Artist.
328	Nicoll, J. C., New York,	*A Calm Morning.	Artist.
329	Fenn, Harry, New York,	Old Fireplace of the Author of "Home, Sweet Home."	Samuel Wilde.
330	Burt, Martha, New York,	Homely Flowers.	Artist.
331	Farrer, Henry, New York,	*Highlands of the Hudson.	Artist.
332	Bellows, A. F., New York,	Autumn Woods.	S. W. Bocock.
333	Silva, F. A., New York,	Brace's Rock.	I. T. Williams.

NO.	ARTIST.	TITLE.	OWNER.
334	Falconer, I. M., Brooklyn,	*William Penn's Mansion.	Artist.
335	Bricher, A. T., New York,	*Summer Morning, Grand Menan.	Artist.
336	Bridges, Fidelia, New York,	Kingfisher and Catkins.	Wm. B. Kendall.
337	Magrath, William, New York,	Grandad's Visit.	I. T. Williams.
338	Nicoll, J. C., New York,	The Deserted Farm.	Artist.
339	Brown, J. G., New York,	Fresh-Water Sailor.	Rush D. Hawkins.
340	Durand, F. F., New York,	Falls of the Ausable.	Artist.
341	Magrath, William, New York,	"Nora."	I. T. Williams.
342	Bellows, A. F., New York,	The Ferry.	Edward P. Borden.
343	Richards, Wm. T., New York,	Paradise, Newport.	George Whitney.
344	McDonald, Margaret, New York,	Fruit.	J. O. Thurston.
345	Gilbert, S. D., New York,	Flowers of the Poets.	Artist.
346	Smith, F. Hopkinson, New York,	Brook study from Nature.	F. H. Smith.
347	Bricher, A. T., New York,	Gathering Water-Lilies.	Artist.
348	Robbins, Horace W., New York,	*An Old Connecticut Bridge.	Artist.
349	Bellows, A. F., New York,	The Willow Wagon.	John Taylor Johnston.
350	Gifford, R. Swain, New York,	The Roc's Egg.	Walter Brown.
351	Richards, Wm. T., Philadelphia,	Sand-Hills, Atlantic City.	George Whitney.
352	Gilbert, S. D., New York,	Begonia Leaves.	Artist.
353	Hill, J. W., New York,	Blackberries.	I. T. Williams.
354	Colman, Samuel, New York,	Arch of Constantine, Rome.	Artist.
355	Brown, J. G., New York,	Got a Nibble.	Artist.
356	Gifford, R. Swain, New York,	*Venetian Companions.	Artist.
357	Bellows, A. F., New York,	Study of a Head.	Artist.
358	Van Elten, Kruseman, New York,	*Autumn in the White Mountains.	Artist.
359	Smith, F. Hopkinson, New York,	Old Cedars, Franconia Mountains.	John C. Townsend.
360	Smillie, George H., New York,	Study, Sentinel Rock, Yosemite Valley.	James Smillie.
361	Falconer, John M., Brooklyn,	*No. 15 Chatham Street, New York.	Artist.
362	Robbins, Horace W., New York,	*New England Autumn.	Artist.
363	Bricher, A. T., New York,	Cliffs at Cape Ann.	Artist.
364	Fenn, Harry, New York,	Toilers of the Sea.	Horace Waters.
365	Perry, E. Wood, Jr., New York,	*Quilting.	Artist.
366	Farrer, Henry, New York,	*Old House on the Hill.	Artist.
367	Bridges, Fidelia, Brooklyn,	*Corner of a Rye-Field.	Artist.
368	Smith, Henry P., New York,	Sultry Morning on Long Island Sound.	Artist.

NO.	ARTIST.	TITLE.	OWNER.
369	Hill, John W., New York,	Study of Quail.	Miss E. Ripley.
370	Bridges, Fidelia, Brooklyn,	*Flock of Snow-Birds.	Artist.
371	Satterlee, Walter, New York,	*Far-away Thoughts.	Artist.
372	Colman, Samuel, New York,	Twilight, Gilead, Maine.	Miss Schuyler.
373	Burling, Gilbert, New York,	Study of a Dead Bird.	F. H. Smith.
374	Fenn, Henry, New York,	Study of Boats.	Samuel Wilde.
375	Van Elten, Kruseman, New York,	*Evening, Long Island Sound.	Artist.
376	Moran, Thomas, Newark, N.J.,	*Hot Springs of the Yellowstone, Wyoming Territory.	Artist.
377	Tiffany, Louis C., New York,	Street Scene in Cairo, Egypt.	George D. Morgan.
378	Gifford, R. Swain, New York,	Egyptian Twilight.	Philip J. Sands.
379	Boughton, George H., London,	Looking out to Sea.	H. B. Smith.
380	Wyant, A. H., New York,	Sunset on the Prairie.	M. R. Schuyler.
381	Bridges, Fidelia, Brooklyn,	Daisies and Clover.	George Whitney.
382	Darley, F. O. C., New York,	Street Scene, Rome.	Artist.
383	Bellows, A. F., New York,	Sunday Afternoon in New England.	H. J. Welling.
384	Nicoll, J. C., New York,	*Foggy Morning on the Coast of Newfoundland.	Artist.
385	Newberry, Rose, New York,	Tuberose.	Artist.
386	Scott, Wm. Wallace, New York,	*Getting Dry.	Artist.
387	Nicoll, J. C., New York,	*On the Gulf of St. Lawrence.	Artist.
388	Homer, Winslow, New York,	*The Busy Bee.	Artist.
389	Scott, Wm. Wallace, New York,	*Fair Daughter of Columbia.	Artist.
390	Gifford, R. Swain, New York,	Guérande.	Mrs. A. B. Stone.
391	Smillie, George H., New York,	Study on the Ausable River, New York.	Artist.
392	Baldwin, A. H., New York,	*Desdemona's House, Venice.	Artist.
393	Magrath, William, New York,	Mussel-Gatherers.	Robert Gordon.
394	Hill, John W., New York,	Landscape.	George W. Lane.
395	Smith, F. Hopkinson, New York,	Study from Nature.	Artist.
396	Harmon, Amelia, New York,	Violets.	Artist.
397	Colman, Samuel, New York,	Rome, looking down the Tiber.	I. T. Williams.
398	Wood, Thomas W., New York,	*The Leader's Call.	Artist.
399	Bellows, A. F., New York,	Safely Landed.	Charles V. Whitten.

(*Annex, Gallery No. 6.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.	OWNER.
400	Robbins, H. W., New York,	*Study from Nature—Farmington River, Connecticut.	Artist.
401	Rafter, Susie J., New York,	String of Onions.	Artist.

NO.	ARTIST.	TITLE.	OWNER.
402	Marshall, W. E., New York,	Portrait—Abraham Lincoln.	Artist.
403	Sellstedt, L. G., Buffalo,	Portrait of the artist.	Buffalo Fine Art Gallery.
404	Gifford, S. R., New York,	Twilight in the Adirondacks.	C. H. Luddington.
405	Cropsey, J. F., New York,	*Old Mill.	Artist.
406	Bispham, H. C., New York,	*The Stampede.	Albert Hayden.
407	Flagg, J. B., New York,	Portrait—Commodore Vanderbilt.	W. H. Vanderbilt.
408	Gifford, S. R., New York,	Santa Maria della Salute, Venice.	Mrs. H. Salisbury.
409	Thompson, Jerome, New York,	*The Old Oaken Bucket.	Jane M. Hodges.
410	Parker, J. A., Brooklyn,	*Sunset in the Adirondacks.	Charles Baxter.
411	Ritchie, A. H., New York,	President Lincoln's Death-bed.	Artist.
412	Vaini, Pietro (deceased),	The Jealous Duchess.	Sarony.
413	Shattuck, A. D., New York,	The White Hills in October.	Artist.
414	Hamilton, H., Buffalo,	The Valley of Fountains.	Artist.
415	La Farge, J., New York,	St. Paul at Athens.	St. Paul's Church, New York.
416	Dolph, J. H., New York,	*The Return from Pasture.	Artist.
417	La Farge, J., New York,	Portrait—Boy and Dog.	Artist.
418	Stone, W. O. (deceased),	Portrait.	Union Club, New York.
419	Beard, W. H., New York,	Lo! the Poor Indian.	Artist.
420	McEntee, J., New York,	Scribner's Mill.	Robert Gordon.
421	Baldwin, A. H., New York,	*Baptistery of St. Mark's, Venice.	Artist.
422	Johnson, Frost, New York,	Good Weight.	G. W. Hollis.
423	Johnson, Eastman, New York,	Sabbath Morning.	R. L. Stuart.
424	Granbery, Miss H. A., New York,	*Autumn Flowers.	Artist.
425	MacKnight, Mrs. S. R., New York,	*"When the Cat's away," etc.	Artist.
426	Ogilvie, Clinton, New York,	In the Woods.	Artist.
427	Beard, J. H., New York,	Out All Night.	M. B. Dash.
428	Mathews, W. T., New York,	Dahlias.	Artist.
429	Henry, E. L., New York,	Taking a Night-Cap.	W. O'Brien.
430	La Farge, J., New York,	Water-Lilies.	G. V. Hecker.
431	Cole, Thomas (deceased),	*The Cross and the World, Youth.	Vincent Colyer.
432	Cole, Thomas (deceased),	*The Cross and the World, Manhood.	Vincent Colyer.
433	Cole, Thomas (deceased),	*The Cross and the World, Old Age.	Vincent Colyer.
434	Smith, T. L., New York,	Eve of St. Agnes.	Artist.
435	McEntee, J., New York,	Winter.	J. W. Pinchot.
436	McEntee, J., New York,	November.	Henry James.

NO.	ARTIST.	TITLE.	OWNER.
437	Suydam, J. A. (deceased),	Twilight on the Coast.	R. M. Olyphant.
438	Huntington, D., New York,	Portrait.	Chas. Tracey.
439	Thomson, A. W., New York,	Desolation—St. Cloud.	Artist.
440	Church, F. E., New York,	Chimborazo.	
441	Hays, W. J. (deceased),	*Bison at Bay.	Mrs. W. J. Hays.
442	Elliott, Charles L., (deceased),	The Cavalier.	F. Carpenter.
443	Trumbull, G., Hartford,	The Critical Moment.	W. C. Prime, LL.D.
444	De Haas, M. F. H., New York,	Drifted Ashore in a Fog.	Artist.
445	Warner, Miss W., New York,	Lilies.	Alex. Warner.
446	Coleman, C. C., Rome,	The Troubadour.	Mrs. W. Wilkeson.
447	McEntee, J., New York,	The Woods of Ashokan.	R. Hoe.

(*Annex, Gallery No. 6.*)

SCULPTURE.

NO.	ARTIST.	TITLE.	OWNER.
448	Lewis, A. J., Philadelphia,	Colossal statue of Washington.	Geo. F. Gordon.
449	Kemys, E., New York,	Coyote and Raven.	Artist.
450	Kemys, E., New York,	Playing Possum.	Artist.
451	Griffin, Julia, New York,	Bust of Rev. Dr. Chapin.	
452	Gifford, Miss I. G., Syracuse, New York,	*Bust of Rev. S. J. May.	Artist.
453	Pardessus, E. V., Brooklyn,	Bust of Hon. E. B. Washburne.	

(*Annex, Gallery No. 14.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.	OWNER.
454	Huntington, D., New York,	Titian and Charles V.	S. Hawk.
455	Gay, Edward, New York,	*Late Afternoon near Albany.	Dr. S. L. Close.
456	Hicks, Thomas, New York,	E. Delafield, M.D.	New York Society for the Relief of Widows and Orphans.
457	Boughton, G. H., London,	Going to Seek his Fortune.	Geo. Whitney.
458	Kensett, J. F. (deceased),	Lake George.	M. K. Jessup.
459	Whittredge, W., New York,	The Pilgrims of St. Roche.	Winthrop B. Smith.
460	Whittredge, W., New York,	Woods of Ashokan.	S. A. Foot.
461	Gifford, S. R., New York,	San Giorgio, Venice.	R. Butler.
462	Johnson, Eastman, New York,	Bo-peep.	H. Richmond.
463	Colman, Samuel, New York,	Twilight on the Western Plains.	Wm. A. Hamilton.
464	Silva, F. A., New York,	New York Harbor.	J. S. Shultz.
465	Weir, J. F., New Haven,	Lago Maggiore.	J. B. Cauldwell.

NO.	ARTIST.	TITLE.	OWNER.
466	Smith, T. L., New York,	The Deserted House.	W. H. Hamilton.
467	Armstrong, D. M., New York,	*Column of St. Mark's, Venice.	Artist.
468	Lawrie, A., New York,	Monk playing the Violoncello.	H. Marks.
469	Shattuck, A. D., New York,	Sheep and Cattle.	J. H. Sherwood.
470	McEntee, J., New York,	Frosty Morning.	S. D. Coykendall.
471	Bridgeman, F. A., New York,	Women on the Nile.	W. W. Kenyon.
472	Moran, Edward, New York,	*Coming Storm over New York Bay.	R. E. Moore.
473	Bierstadt, A., New York,	The Great Trees, Mariposa Grove, California.	Artist.
474	Durand, A. B., New York,	Brook study.	Artist.
475	Gifford, R. Swain, New York,	*Mosque of Mohammed Ali, Cairo.	Artist.
476	Durand, A. B., New York,	Kaaterskill Clove, Catskill.	Artist.
477	Huntington, D., New York,	Lake George.	D. W. Bishop.
478	Pease, Alonzo, Utica,	Portrait—Hon. S. Campbell.	
479	Ward, E. M., New York,	Brittany Peasants Washing Clothes.	Robert Gordon.
480	Kensett, J. F. (deceased),	New Hampshire Scenery.	Century Club.
481	Montalant, J. O. de, Rome,	*Constantinople.	Artist.
482	Oertel, Rev. J. A., Lenoir, N. C.,	The Shadow of a Great Rock in a Weary Land.	Artist.
483	De Haas, M. F. H., New York,	Brig hove to for a Pilot.	Artist.
484	Thom, J. C., New York,	Going to Church, Christmas Eve.	J. M. Burt.
485	Hart, J. M., New York,	Landscape and Cattle.	J. H. Sherwood.
486	Bricher, A. T., New York,	Morning at Narragansett.	J. Suydam.
487	Kappes, Alfred, New York,	*Waiting.	Artist.
488	Bierstadt, A., New York,	Western Kansas.	Walter Richmond.
489	Gifford, S. R., New York,	Tivoli.	C. H. Luddington.
490	Huntington, D., New York,	Philosophy and Christian Art.	Robert Hoe.
491	Whittredge, W., New York,	Rocky Mountains, from the Platte River.	Century Club.
492	Gray, H. Peters, New York,	The Wages of War.	Metropolitan Museum
493	Mignot, L. R. (deceased),	Snow Scene.	Century Club.
494	Brooks, S., San Francisco,	California Fish.	A. Bierstadt.
495	Huntington, D., New York,	Lake George.	G. N. Stayner.
496	Ritchie, A. H., New York,	Preparing Moses for the Fair.	Artist.
497	Weir, R. W., West Point,	Taking the Veil.	A. C. Alden.
498	Gifford, S. R., New York,	Sunrise on the Sea-Shore.	Robert Hoe.
499	Cropsey, J. F., New York,	Italy.	James M. Mills.

(*Annex, Gallery No. 14.*)

SCULPTURE.

NO.	ARTIST.	TITLE.	OWNER.
500	Cusachs, P., New York,	Christ in the Sepulchre.	Artist.
501	Hess, George, New York,	*The Water-Lily.	Artist.
502	Turini, G., New York,	*Angelica and Medora.	Artist.
503	Turini, G., New York,	*The Rainbow.	Artist.
504	Ives, C. B., Rome,	Nursing the Infant Bacchus.	

(*Annex, Gallery No. 8.*)

ARCHITECTURAL DESIGNS.

NO.	ARCHITECT.	TITLE.
505	Cummings & Sears, Boston,	Old South Church.
506	Thayer, S., Boston,	Design for Turner Library, Randolph, Mass.
507	Howe, F.,	Perspective View of the Latin and English High Schools, proposed for the City of Boston—south-west angle.
508	Bryant & Rogers, Boston,	City Hall, Providence, R.I.
509	Mitchell, John A., Boston,	Designs for Library of Congress. (Two drawings.)
510	Bryant & Rogers, Boston,	View of the Connecticut Mutual Life Insurance Company's Building in Hartford, Conn.
511	McArthur, John, Jr., Philadelphia,	View of the New Public Buildings, Philadelphia.
512	Hobbs, J. H., & Son, Philadelphia,	Design of State Capitol.
513	Hobbs, J. H., & Son, Philadelphia,	Memorial to General George G. Meade.
514	Thayer, S. J. F., Boston,	The Mutual Life Insurance Company's Building, New York.
515	Thayer, S. J. F., Boston,	City Hall, Providence, R.I.
516	Cabot & Chandler, Boston,	House at Beverly Farms, Mass.
517	Cabot & Chandler, Boston,	House at Beverly Farms, Mass.
518	Thayer, S., Boston,	Plan of Unitarian Church, South Boston.
519	Moeller, F. G., Nanuet, N.Y.,	Country-seat at Bernardsville, N.J.
520	Thayer, S. J. F., Boston,	Perspective View.
521	Tilden, George T., Boston,	House for Milton Hill.
522	Tilden, George T., Boston,	Block of five houses, Longwood, Mass.
523	Levy, Thomas S., Philadelphia,	Residence on Fortieth Street—elevation.
524	Newcomb, L., & Son, Boston,	Elevation of a country residence.
525	Putnam, J. P., Boston,	Memorial tablet to the organist of a church.
526	Tilden, George T., Boston,	Designs for cottages.
527	Levy, Thomsa S., Philadelphia,	Eighth National Bank, Philadelphia.
528	Sturgis & Brigham, Boston,	Interior of a church.
529	Newcomb, L., & Son, Boston,	Design for a corner-lot building.
530	Bryant & Rogers, Hartford,	State Capitol, Hartford, Connecticut.
531	Sturgis & Brigham, Boston,	Chicago Court-house.
532	Sturgis & Brigham, Boston,	Design for a church.
533	Sturgis & Brigham, Boston,	Design for a church.
534	Clark, H. P.,	Restoration of the Tomb of Mausolus.
535	Sturgis & Brigham, Boston,	Five designs for cottages.
536	Putnam, J. P., Boston,	House on Irving Street, Boston.
537	Putnam, J. P., Boston,	House on Marlboro Street, Boston.
538	Ware & Van Brunt, Boston,	Design for a house.
539	Ware & Van Brunt, Boston,	Design for a house.
540	Ware & Van Brunt, Boston,	Memorial Hall of Harvard College.
541	Ware & Van Brunt, Boston,	Southeast view of Memorial Hall of Harvard College.
542	Ware & Van Brunt, Boston,	Vestibule of Memorial Hall of Harvard College.
543	Dudley, Henry, New York,	St. John's Church, Waterbury, Connecticut.

NO.	ARCHITECT.	TITLE.
544	Dudley, Henry, New York,	St. Peter's Church, Auburn, N.Y.
545	Earle & Fuller, Boston,	Interior of All Saints' Church, Worcester, Mass.
546	Cummings & Sears, Boston,	Shillaber Building, Boston.
547	Cummings & Sears, Boston,	Porch of Old South Church.
548	Cabot, Edw. C., Boston,	Design of a house.
549	Cabot, Edw. C., Boston,	House in Brookline, Mass.
550	Putnam, J. P., Boston,	Summer residence.
551	Cady, J. C., New York,	Country house.
552	Cady, J. C., New York,	New York Tribune Building.
553	Upjohn, Richard M., New York,	Trinity Church, Princeton.
554	Upjohn, Richard M., New York,	Stable.
555	Upjohn, Richard M., New York,	St. Paul's Church, Brooklyn.
556	Upjohn, Richard M., New York,	St. Chrysostom Chapel, New York.
557	Upjohn, Richard M., New York,	Central Congregational Church, Boston.
558	Upjohn, Richard M., New York,	Presbyterian Church, Rye, N.Y.
559	Upjohn, Richard M., New York,	Monument.
560	Upjohn, Richard M., New York,	Trinity Parish School.
561	Upjohn, Richard M., New York,	St. Thomas's Church, New York
562	Upjohn, Richard M., New York,	The West Middle School, Hartford.
563	Upjohn, Richard M., New York,	Part of Central Church.
564	Upjohn, Richard M., New York,	Entrance to Greenwood Cemetery.
565	Upjohn, Richard M., New York,	The State Capitol, Hartford.
566	Upjohn, Richard M., New York,	State-House, Hartford, Conn.
567	Clinton, Charles, New York,	Architectural design.
568	Clinton, Charles, New York,	Architectural design.
569	Upjohn, R. M., New York,	Design of a house.
570	Upjohn, R. M., New York,	Design of a house.
571	Clinton, C. W., New York,	House on Fifth Avenue, New York.
572	Clinton, C. W., New York,	House on Fifth Avenue, corner of Fifty-Eighth Street, New York
573	Longfellow, W. P. P.,	Soldiers' Memorial at Brookline, Mass
574	Clinton, C. W., New York,	House on Fifth Avenue, New York.
575	Clinton, C. W., New York,	House on Fifth Avenue, New York.
576	Clinton, C. W., New York,	House on Fifth Avenue, New York.
577	Clinton, C. W., New York,	House on Fifth Avenue, New York.
578	Hunt, R. M., New York,	Architectural design.
579	Clinton, C. W., New York,	Portico of house on Fifth Avenue, New York.
580	Clinton, C. W., New York,	Design for a house.
581	Hunt, R. M., New York,	Design for Central Park.
582	Hunt, R. M., New York,	Design for Central Park.
583	Hunt, R. M., New York,	Entrance to Central Park.
584	Clinton, C. W., New York,	House at Yonkers, on the Hudson.
585	Clinton, C. W., New York,	Architectural design.
586	Clinton, C. W., New York,	Design for a house.
587	Hunt, R. M., New York,	Design for entrance to Central Park.
588	Hunt, R. M., New York,	Design for Central Park.
589	Hunt, R. M., New York,	Design for Central Park.
590	Hunt, R. M., New York,	Design for Central Park.
591	Jennings, A. B., New York,	Country residence.
592	Hunt, R. M., New York,	Design for Union Telegraph Office.
593	Hunt, R. M., New York,	Designs for entrance to Central Park (two drawings).
594	Hunt, R. M., New York,	Designs for the Lenox Library (four drawings).
595	Hunt, R. M., New York,	Designs for a public building.
596	Hunt, R. M., New York,	View of Lenox Library.
597	Hunt, R. M., New York,	Design for Holy Trinity Church.
598	Hunt, R. M., New York,	Design for an iron building.
599	Hunt, R. M., New York,	The Tribune Building, New York.
600	Fernbach, Henry, New York,	Temple on Lexington Avenue.
601	Fernbach, Henry, New York,	Mutual Life Insurance Company's Building, Philadelphia.

NO.	ARCHITECT.	TITLE.
602	Fernbach, Henry, New York,	Centre pavilion of the Mutual Life Insurance Company's Building, Philadelphia.
603	Fernbach, Henry, New York,	Main stairway of Mutual Life Insurance Company's Building, Philadelphia.
604	Fernbach & Kendall, New York,	German Savings Bank, Fourth Avenue, New York.
605	Fernbach, Henry, New York,	New York Staats Zeitung Building, New York.
606	Fernbach & Kendall, New York,	Vault, Salem Fields Cemetery.
607	Post, George B., New York,	Library and Lyceum Building, Morristown, New Jersey.
608	Post, George B., New York,	Front elevation of the Troy Savings Bank, Troy, New York.
609	Post, George B., New York,	View of State Capitol, Hartford, Connecticut.
610	Post, George B., New York,	Western Union Telegraph Company.
611	Congdon, H. M., New York,	Church, Worcester, Massachusetts.
612	Post, George B., New York,	State-House for the State of Connecticut—front elevation.
613	Post, George B., New York,	Side elevation of the Savings Bank, Syracuse, N.Y.
614	Post, George B., New York,	Free Art Gallery—design made for the late Henry Keep, New York.
615	Post, George B., New York,	The Evening Post Building, New York.
616	Post, George B., New York,	New York Hospital, New York.
617	Post, George B., New York,	Presbyterian Hospital, New York.
618	Jennings, A. B., New York,	Design for five houses.
619	Jennings, A. B., New York,	Residence, Englewood, N.J.
620	Jennings, A. B., New York,	Swiss cottage.
621	Cady, J. C.,	Alexander Mission, New York.
622	Gambrill & Richardson, New York,	Buffalo State Asylum for the Insane, Administration Building.
623	Croff & Camp, Saratoga, New York,	Villa at Montreal, N.Y.
624	Croff & Camp, Saratoga, New York,	Villa.
625	Croff & Camp, Saratoga, New York,	Villa at Hudson, N.Y.
626	Croff & Camp, Saratoga, New York,	Villa at Saratoga Springs.
627	Croff & Camp, Saratoga, New York,	Villa at Rhinebeck, N.Y.
628	Croff & Camp, Saratoga, New York,	Design for a grand hotel at Santa Barbara, Cal.
629	Croff & Camp, Saratoga, New York,	Competitive design for Promenade, etc., Congress Spring Park, Saratoga.
630	Smith, M. L.,	Michigan House of Correction, Ionia.
631	Croff & Camp, Saratoga, New York,	Villa at Saratoga Lake.
632	Croff & Camp, Saratoga, New York,	Villa at Burlington, Vt.
633	Croff & Camp, Saratoga, New York,	Villa at Hudson, N.Y.
634	Haight, Ch. C.,	St. Luke's Cathedral, Portland, Me.
635	Post, George B.,	Savings Bank, Williamsburgh, N.Y.
636	Renwick & Sands,	Church of St. Bartholomew, New York.
637	Potter, W. A.,	Design for a church.
638	Potter, W. A.,	Proposed design for Trinity Church, Boston.
639	Dudley, Henry, New York,	St. Peter's Church, Niagara Falls, N.Y.
640	Potter, W. A.,	Design for a church.
641	Congdon, H. M.,	St. Andrew's Church, Harlem, N.Y.
642	Potter, E.,	Harvard Church, Brookline, near Boston
643	Potter, W. A.,	Villa.
644	Potter & Robertson,	Design for a library.
645	Potter & Robertson,	Hotel at Princeton, N.J.
646	Potter & Robertson,	Dormitory of Princeton College.
647	Potter, W. A.,	Princeton College Library.
648	Potter & Robertson,	Berkshire Athenæum, Pittsfield, Mass.
649	Cady, J. C., New York,	Peabody Museum, Yale College.

NO.	ARCHITECT.	TITLE.
650	Potter, Edward,	Tower of Harvard Church, Brookline, near Boston.
651	Bloor, A. J., New York,	Villa.
652	Bloor, A. J., New York,	Villa.
653	Pfeiffer, Carl, New York,	New Presbyterian Church, Fifth Avenue.
654	Pfeiffer, Carl, New York,	New Presbyterian Church, Fifth Avenue.
655	Pfeiffer, Carl, New York,	New Presbyterian Church, Fifth Avenue.
656	Pfeiffer, Carl, New York,	Osseo Lodge, West Virginia.
657	Congdon, H. M.,	Design for a church.
658	Eppinghousen, C., Terre Haute, Indiana,	Perspective for Indiana State Capitol.
659	Eppinghousen, C., Terre Haute, Indiana,	Flank elevation for Indiana State Capitol.
660	Eppinghousen, C., Terre Haute, Indiana,	Market House and City Hall, Terre Haute, Indiana.
661	Eppinghousen, C., Terre Haute, Indiana,	McKean & Minshall's Bank, Terre Haute, Indiana.
662	Kendall, Edward H.,	Competitive drawing for the German Savings Bank.
663	Eppinghousen, C., Terre Haute, Indiana,	Normal School, Sullivan, Indiana.
664	Eppinghousen, C., Terre Haute, Indiana,	Interior of Indiana State Capitol.
665	Myers, E. E., Detroit, Michigan,	Court-house in Marshall, Michigan.
666	Hallet, William T., New York,	Church in Forty-Fifth Street, New York.
667	Hallet, William T., New York,	First National Bank, Norwich, Conn.
668	Hallet, William T., New York,	Villa near Stamford, Conn.
669	Hallet, William T., New York,	Villa near Stamford, Conn.
670	Hallet, William T., New York,	Macy House, Harrison, N.Y.
671	Hallet, William T., New York,	Residence, Hartford, Conn.
672	Hess, Julius, Detroit,	Michigan Centennial Building, Philadelphia.
673	Myers, E. E., Detroit,	Insane Asylum, Pontiac, Michigan.
674	Myers, E. E., Detroit,	Michigan State Capitol.
675	Myers, E. E., Detroit,	Model farm-house.
676	Myers, E. E., Detroit,	Lansing High School.
677	Hobbs, I. H., & Son, Philadelphia,	Ravensburg Seminary.
678	Le Brun, N., New York,	Masonic Hall, New York City.
679	Le Brun, N., New York,	Sanctuary and Grand Altar of the Cathedral of St. Peter and St. Paul, Philadelphia.
680	Howe, Frank M.,	Country house.
681	Gambrill & Richardson, New York,	Trinity Church, Boston.
682	Gambrill & Richardson, New York,	Competitive design for Town Hall, Brookline, Mass.
683	Moffitt, John M.,	The Delavan Monument at Sleepy Hollow Cemetery.
684	Gambrill & Richardson, New York,	Court-house, Springfield, Mass.
685	Gambrill & Richardson, New York,	Trinity Church, Boston—interior view.
686	Holly, H. Hudson, New York,	Design of villa.
687	Gambrill & Richardson, New York,	Dwelling at Owego, New York.
688	Gambrill & Richardson, New York,	Cottage at Newport, R.I.
689	Gambrill & Richardson, New York,	Competitive design for State-House, Hartford, Conn.
690	Holly, H. Hudson, New York,	Three designs for villas.
691	Sims, H. A. & J. P.,	Design for a villa.
692	Sims, James P.,	Cottage at Atlantic City.
693	Gambrill & Richardson, New York,	Design for the Tower of Trinity Church, Boston.
694	Sims, H. A. & J. P.,	Study for a country church.
695	Sims, H. A.,	Residence at Mount Holly.
696	Sims, James P.,	Design for a church.
697	Hatfield, R. G., New York,	Design for a market.

NO.	ARCHITECT.	TITLE.
698	Hatfield, R. G., New York,	Office building, Broad Street, New York.
699	Hatfield, R. G., New York,	Seaman's Savings Bank, New York.
700	Hatfield, R. G., New York,	Warehouse, Broadway, New York.
701	Hatfield, R. G., New York,	Country house, Scarsdale, New York.
702	Earl & Fuller, Boston,	Hall in a cottage in Worcester.
703	Thayer, S. J. F.,	Architectural design.
704	Pohl, G. R., Philadelphia,	Design for the proposed Centennial Exhibition Building—front on Elm Avenue.
705	Pohl, G. R., Philadelphia,	Design for the proposed Centennial Exhibition Building—diagonal perspective.
706	Pohl, G. R., Philadelphia,	Design for the proposed Centennial Exhibition Building—exterior perspective.
707	Pohl, G. R., Philadelphia,	Design for the proposed Centennial Exhibition Building—interior view.
708	Pohl, G. R., Philadelphia,	Design for the proposed Centennial Exhibition Building—end elevation.
709	Luce, C. S., Boston,	Tomb of Governor Hayden, Haydenville, Mass.
710	Fairfax, J. S.,	State Capitol of West Virginia.
711	Fairfax, J. S.,	Premiated design for the International Exhibition, Philadelphia—ground plan.
712	Fairfax, J. S.,	Premiated design for the International Exhibition, Philadelphia—block plan.
713	Fairfax, J. S.,	Premiated design for the International Exhibition, Philadelphia—side elevation.
714	Fairfax, J. S.,	Premiated design for the International Exhibition, Philadelphia—front elevation.
715	Fairfax, J. S.,	Premiated design for the International Exhibition, Philadelphia—Art Gallery.
716	Fairfax, J. S.,	Premiated design for the International Exhibition, Philadelphia—Memorial Building.
717	Mitchell, J. A.,	Architectural design for a memorial window.
718	Beeler, J., New York,	Ceilings.
719	Thayer, S. J. F.,	Somerville High School Building.
720	Fairfax, J. S.,	Proposed Miller Manual School, Virginia.
721	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Design of a villa.
722	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Dining-room decorations.
723	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Dining-room decorations.
724	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Design for building.
725	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Original building with alteration.
726	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Women's Pavilion.
727	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Centennial Building.
728	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Interior of Judges' Hall.
729	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Architectural design.
730	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Judges' Hall.
731	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Horticultural Hall.
732	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Interior of Horticultural Hall.
733	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Interior.
734	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Memorial Hall.
735	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Competitive design, Vienna Exhibition.
736	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Architectural design.
737	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Architectural design (house).

NO.	ARCHITECT.	TITLE.
738	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Memorial Hall.
739	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Memorial Hall.
740	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Interior of Memorial Hall.
741	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Original building with alteration.
742	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Original design for the International Exhibition, 1876.
743	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Judges' Hall.
744	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Board of Finance Building.
745	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Centennial Bank.
746	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Architectural design.
747	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Residence in Munich.
748	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Designs for villas.
749	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Dining-room decorations.
750	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Dining-room decorations.
751	Schwarzmann, H. J., & Kafka, H., Philadelphia,	Designs for building.
752	Howe, Frank M.,	House in Cambridge.
753	Fehmer, Carl, Boston,	Howe Building, Boston.
754	Richards, Henry,	House at Beverly Farms, Mass.
755	Richards, Henry,	Homœopathic Hospital.
756	Hartwell, Swasey & Co., Boston,	Design for proposed Central Church, Fall River
757	Cummings & Sears,	Montgomery Building.
758	Cabot & Chandler, Boston,	Soldiers' monument at Brookline, Mass.
759	Howe, F. M.,	Proposed City Hall, Providence, R.I.
760	Whitney, L. W., Boston,	Residence on Fairfield Street, Boston.
761	Whitney, L. W., Boston,	Residence on Boylston Street, Boston.
762	Fehmer, Carl, Boston,	Building for the Simmons Estate, Boston.
763	Hartwell, Swasey & Co., Boston,	Dexter Building, Pawtucket, R.I.
764	Luce, Clarence S., Boston,	Monument at Brookline, Mass.
765	Richards, Henry, Boston,	Proposed High School, Providence, R.I.
766	Longfellow, W. P. P., Boston,	Design for a house.
767	Whitney, Lewis W., Boston,	Child's book-case and cabinet.
768	Newcomb, L., & Son,	Library.
769	Earle & Fuller, Boston,	Buildings at Worcester, Mass.
770	Earle & Fuller, Boston,	Dining-room.
771	Earle & Fuller, Boston,	All Saints' Church, Worcester.
772	Longfellow, W. P. P.,	Hall in Fiskdale.
773	Longfellow, W. P. P.,	Town library.

(Annex, Gallery No. 12.)

LOAN COLLECTION OF OIL PAINTINGS.

NO.	ARTIST.	TITLE.	OWNER.
774	Vandyke, Anthony,	*The Crucifixion.	Mrs. M. Garner.
775	Erpikum, Paris,	Portrait—Madame Houssaye.	C. B. Moore.
776	Domenichino,	*Judith.	G. H. Schneider.
777	Cabanel, Alex., Paris,	Francesca di Rimini.	Mrs. A. E. Kidd.
778	Madrazo, Madrid,	Portrait—Mrs. D. M. Barringer.	L. M. Barringer.
779	Gudin, T.,	*Marine.	A. Bierstadt.
780	Madrazo, Madrid,	Portrait—D. M. Barringer.	L. M. Barringer.

NO.	ARTIST.	TITLE.	OWNER.
781	Makart, Hans, Vienna,	*Abundance of the Sea.	A. & C. Kaufmann.
782	Schidone,	*Charity.	Estate of Dr. Chapman.
783	Navelot, Victor,	*Cavalry Charge.	Dr. George Reuling.
784	Robert, Leopold (deceased),	Pilgrims on their Way to Rome.	Miss S. L. Guerber.
785	Vernet, Jos. (attributed to),	Landscape.	E. S. Conner.
786	(Unknown),	Old Woman's Head.	F. L. Robbins.
787	Murillo (attributed to),	St. Francis in his Cell.	E. S. Conner.
788	Muraton, A., Paris,	*The Devotee.	L. Rabillon.
789	Wolf, G.,	*Portia.	Dr. George Reuling.
790	Dubufe, E., and Bonheur, Rosa, Paris,	*Autumn. (Figure by Dubufe, sheep by Rosa Bonheur.)	Dr. George Reuling.
791	Brion, G., Paris,	*Bridal Procession in Alsace.	M. Knoedler & Co.
792	Max, Gabriel, Munich,	*The Anatomist.	Demas Barnes.
793	Sain, E. A., France,	Italian Girl.	Theo. Lyman.
794	Van Schendel, P., Brussels,	*The Annunciation.	Demas Barnes.
795	Nicoll, E., London,	Paying the Rent.	F. O. Day.
796	Saltau, L., Paris,	Consolation.	Mrs. E. V. Machette.
797	Volk, Douglas, Chicago,	In Brittany.	Artist.
798	Verboeckhoven, E., Brussels,	Driving Home the Sheep.	W. J. Bates.
799	Kunath, Oscar, Munich,	*Still Life.	Artist.
800	Pauwels, F., Weimar,	The New Republic.	W. S. Stewart.
801	Duval, V., Paris,	Gallery of Apollo, Louvre.	
802	Nys, P. (deceased),	*Dutch Interior.	T. C. A. Dexter.
803	Dürer, Albert,	St. Jerome.	E. V. Machette.
803*a*	Del Sarto, Andrea,	*St Andrew bearing his Cross. *Christ stilling the Tempest.	Mrs. L. G. Franklin.
804	De Haas, J. H. L., Brussels,	*Cattle in the Meadows of Holland.	Myers & Hedian.
805	Seitz, Prof. Otto, Munich,	*Faun and Nymph.	Myers & Hedian.
806	Makart, Hans, Vienna,	*Abundance of the Earth.	A. & C. Kaufmann.
806*a*	Porporati (deceased),	*Adoration of the Magi.	P. F. Cooper.
807	Courbet, Gustave, Paris,	*The Huntsman.	A. H. Reitlinger.
808	Courbet, Gustave, Paris,	*Castle of Chillon, Lake Leman (1).	A. H. Reitlinger.
809	Courbet, Gustave, Paris,	*Castle of Chillon, Lake Leman (2).	A. H. Reitlinger.
810	Courbet, Gustave, Paris,	*The Bather.	A. H. Reitlinger.
811	Wouvermans (attributed to),	War Scene.	E. S. Conner.
812	Maccari, C., Rome,	Fond Memories.	J. Raymond Claghorn.
813	Maccari, C., Rome,	Music hath Charms.	J. Raymond Claghorn.
814	Ortmans, Miss F. A., Paris,	An Opening in the Forest of Fontainebleau.	John Welsh.
815	West, Benjamin (deceased),	Moses Striking the Rock.	Dr. H. Billings.

(Annex, Gallery No. 12.)

SCULPTURE.

NO.	ARTIST.	TITLE.	OWNER.
816	Gould, T. R., Florence,	The West Wind.	Demas Barnes.

NO.	ARTIST.	TITLE.	OWNER.
817	Gould, M. S., Florence,	Water Babies.	
818	Gould, T. R., Florence,	The Rose.	
819	Gould, T. R., Florence,	The Lily.	

(*Annex, Gallery No. 10.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.	OWNER.
820	Mayer, F. B., Baltimore,	The Continentals.	Artist.
821	Darrah, Mrs. S. T., Boston,	*Sunset.	Artist.
822	Healy, G. P. A., Chicago,	Portrait—Hon. E. B. Washburne.	
823	Birch, Thos. (deceased),	Marine.	
824	Tompkins, Clementina, Paris,	*The Little Musician.	Artist.
825	Seitz, Otto, Munich,	*Neptune's Bridal (Loan Collection).	Myers & Hedian.
826	Tilton, J. R., Rome,	*The Lagoons of Venice.	Artist.
827	Tompkins, Clementina, Paris,	*An Artistic Début.	Artist.
828	Coleman, C. C., Rome,	Nuremberg Towers—fifteenth century.	H. Sampson.
829	Graham, W., Venice,	*Angle Column of Ducal Palace, Venice.	Artist.
830	Gregory, J. Elliot, Paris,	Portrait.	Dr. J. S. Delavan.
831	Bloomer, H. B., Paris,	El Dorado.	Artist.
832	Chase, W. M., Munich,	"Keying up"—The Court Jester.	S. M. Dodd.
833	Inman, H. (deceased),	Portrait—Bishop R. C. Moore.	Trinity Chapel, N.Y.
834	Healy, G. P. A., Chicago,	Portrait—Lord Lyons.	
835	Du Bois, C. E., Paris,	*Palisades, Hudson River.	Artist.
836	Bierstadt, A., New York,	Yosemite Valley.	Artist.
837	Coleman, C. C., Rome,	The Young Monk.	J. H. Coleman.
838	Sully, Thos. (deceased),	Portrait—Mrs. T. Sully.	Miss Sully.
839	Benson, Eugene, Rome,	*Interior of St. Mark's, Venice.	Artist.
840	Healy, G. P. A., Chicago,	Portrait—Ex-President Thiers.	
841	Brown, H. B.,	The East Highlands.	
842	Vedder, Elihu, Rome,	The Greek Actor's Daughter.	H. Sampson.
843	Robinson, Thos., Boston,	Bull's head.	H. C. Angell.
844	Parker, S. H., New York,	Portrait—Mrs. H. W. Hills.	Artist.
845	Lang, Louis, New York,	Landing of the Market-Boat at Capri.	Artist.
846	Spencer, Mrs. Lily M., Newark, N.J.,	*Earth, Air, and Water.	Artist.
847	West, P. B., Cleveland,	Still Life—game.	Mrs. M. L. Dickinson.
848	Andrews, E. F., Paris,	Portrait.	Dr. S. H. Linn.
849	Thouron, H., Philadelphia,	Charlotte Corday—The Eve of her Execution.	Artist.

NO.	ARTIST.	TITLE.	OWNER.
850	Tait, J. R., Cincinnati,	Summer.	Artist.
851	Coleman, C. C., Rome,	Still Life.	J. H. Warren.
852	McEntee, J., New York,	Virginia during the War.	Mrs. H. W. Cary.
853	Andrews, E. F., Paris,	Little Leonie.	Artist.
854	Elliott, C. L. (deceased),	Portrait—Ex-Governor Bouck.	City Hall, New York.
855	Meeks, Eugene, Florence,	Little Nell and her Grandfather.	Artist.
856	Andrews, E. F., Paris,	Portrait—General Torbert.	
857	Andrews, E. F., Paris,	Portrait.	Dr. B. J. Bing.
858	Tait, J. R., Cincinnati,	Autumn.	Artist.
859	Montalant, J. O. de, Rome,	*The Parthenon, Athens.	Artist.
860	Marchant, E. D., Philadelphia,	Portrait—H. C. Carey.	J. G. Fell.
861	Andrews, E. F., Paris,	Portrait.	W. E. Macalister.
862	Shirlaw, Walter, Munich,	Toning the Bell.	J. F. Gookins.
863	Shirlaw, Walter, Munich,	Feeding the Poultry.	J. F. Gookins.
864	Middleton, S. G., Paris,	Sketch at Cernay, near Paris.	Artist.
865	Tilton, J. R., Rome,	Kem Ombres, Upper Egypt.	Hon. H. P. Baldwin.
866	Willard, A. M., Cleveland,	Yankee Doodle.	Artist.
867	Rothermel, P. F., Philadelphia,	Trial of Sir Harry Vane.	J. L. Claghorn.
868	Senat, P. L., Paris,	*Moonrise near Rotterdam.	Artist.
869	Coman, Mrs. C. B., New York,	*A French Village.	Artist.
870	Weir, J. F., New Haven,	*The Confessional.	E. E. Salisbury.

(*Annex, Gallery No. 10.*)

SCULPTURE.

NO.	ARTIST.	TITLE.	OWNER.
871	Bartholdi, Paris,	Proposed Monument to Washington.	
872	Ezekiel, M., Rome,	Grace Darling.	L. J. Workum.
873	Ezekiel, M., Rome,	Sailor Boy.	L. J. Workum.
874	Ezekiel, M., Rome,	Infant Mercury.	L. J. Workum.

(*Annex, Gallery No. 28.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.	OWNER.
875	Smith, F. Hill, Boston,	*Sunset on the Giudecca, Venice	Artist.
876	Daniels, G. F., Boston,	*Crown Point and the Narrows, Lake Champlain.	Artist.
877	Benson, Eugene, Rome,	*The Reverential Anatomist.	Artist.
878	Staigg, R. M., Boston,	*Cornice Road, Italy.	Artist.
879	Brown, W. W., Boston,	*Spurwink River.	Artist.
880	Higgins, George F., Boston,	*Forest Interior, Adirondacks.	M. M. Farrer.

NO.	ARTIST.	TITLE.	OWNER.
881	Staigg, R. M., Boston,	*Empty Nest.	Artist.
882	Shapleigh, F. H., Boston,	Kenilworth.	J. C. Howe.
883	Millet, F. D., Boston,	*In the Bay of Naples.	Artist.
884	Millet, F. D., Boston,	Lady in Costume of 1740.	Mrs. E. S. Keith.
885	Shapleigh, F. H., Boston,	On the Seine.	J. C. Howe.
886	Cole, J. Foxcroft, Boston,	Twilight, Melrose Highlands.	J. Sayles.
887	De Blois, F. B., Boston,	October in Canada.	T. F. Brooke.
888	Cole, J. Foxcroft, Boston,	*Cows Ruminating.	Doll & Richards.
889	Enneking, J. E., Boston,	*Moonlight on the Giudecca, Venice.	Artist.
890	Tuckerman, S. S., Boston,	*Beach at Hastings.	Artist.
891	Monks, J. A., Boston,	*Trees in Blossom.	Artist.
892	Champney, Benjamin, Boston,	*Artists' Brook, North Conway, N.H.	Artist.
893	Elwell, D. J., Boston,	*Downs near Ostend.	Artist.
894	Cole, J. Foxcroft, Boston,	*Pastoral Scene.	Doll & Richards.
895	Allston, Washington (deceased),	Isaac of York—"Ivanhoe."	Boston Athenæum.
896	Porter, B. C., Boston,	Portrait.	Artist.
897	Brackett, W. M., Boston,	*The Rise.	Artist.
898	Brackett, W. M., Boston,	*The Leap.	Artist.
899	Brackett, W. M., Boston,	*The Last Struggle.	Artist.
900	Brackett, W. M., Boston,	*Landed.	Artist.
901	Key, J. R., Boston,	The Golden Gate, San Francisco.	Artist.
902	Hinckley, T. H., Boston,	*End of the Chase.	Artist.
903	Freeman, J. E., Boston,	Study for an Angel.	C. C. Perkins.
904	Porter, B. C., Boston,	The Hour-Glass.	Artist.
905	Cole, J. Foxcroft, Boston,	*Coast Scene in Normandy.	Artist.
906	Elwell, D. J., Boston,	Port of Antwerp.	S. E. Sawyer.
907	Robinson, T., Boston,	New England Farmer.	John Foster.
908	Weeks, E. L., Boston,	*Arab Story-Teller.	Artist.
909	Gay, Walter, Boston,	*Fall Flowers.	Artist.
910	Boott, Eliz., Boston,	Portrait.	Artist.
911	Baker, Miss M. K., Boston,	*Azaleas.	Artist.
912	Alexander, Fanny, Boston,	Madonna.	James Davis.
913	Ames, Jos., Boston,	Portrait—President Felton.	Harvard University.
914	Staigg, R. M., Boston,	Portrait.	
915	Staigg, R. M., Boston,	Portrait.	
916	Billings, E. T., Boston,	*Portrait—Wendell Phillips.	Artist.

NO.	ARTIST.	TITLE.	OWNER.
917	Jarvis, Melicent, Boston,	Portrait.	Artist.
918	Tuckerman, S. S., Boston,	*United States Frigate "Constitution" escaping from the British Fleet, 1812.	Artist.
919	Staigg, R. M., Boston,	Portrait.	
920	Parker, Edgar, Boston,	Portrait—J. G. Whittier.	Artist.
921	Hale, Ellen D., Boston,	Boy Reading.	Mrs. E. E. Hale.
922	Robinson, T., Boston,	Dog's head.	
923	Hunt, W. M., Boston,	The Boot-Black.	J. H. Wright.
924	Robinson, T., Boston,	Sheep in Pasture.	William Appleton.
925	Ames, Joseph, Boston,	Portrait—Daniel Webster.	B. S. Moulton & Co.
926	Brown, G. L., Boston,	*Sunset—Genoa.	Artist.
927	Norton, W. E., Boston,	*Fog on the Grand Banks.	Artist.
928	Champney, Benjamin, Boston,	*At Glenora, N.Y.	Artist.
929	Billings, E. T., Boston,	Wheelwright Shop.	Artist.
930	Longfellow, E. W., Boston,	*Old Mill at Manchester, Mass.	Artist.
931	Stuart, Gilbert (deceased),	Portrait—Fisher Ames.	Harvard University.
932	Stuart, Gilbert (deceased),	Portrait—Judge Story.	Harvard University.
933	Stuart, Gilbert (deceased),	Portrait—Bishop Chevenix.	Mrs. H. Greenough.
934	Harding(deceased),	Portrait—Washington Allston.	S. Batchelder.
935	Bannister, E. M., Providence,	*Under the Oaks.	Artist.
936	Champney, J. W., Boston,	"Speak, Sir!"	J. L. De Wolf.
937	Champney, Benjamin, Boston,	*Old Willows at Manchester, Mass.	Artist.
938	Darrah, Mrs. S. T., Boston,	*Lake Champlain.	Artist.
939	Allston, Washington (deceased),	Head of a Jew.	Boston Athenæum.
940	Stuart, Gilbert (deceased),	Portrait—Mrs. E. C. Cushing.	Mrs. L. L. Chickering.
941	Gerry, S. L., Boston,	*American Tourists.	Miss E. J. Gerry.
942	Petersen, J. E. C., Boston,	Collision at Sea.	Manufacturers' Insurance Company.

(*Annex, Gallery No. 28.*)

SCULPTURE.

NO.	ARTIST.	TITLE.	OWNER.
943	French, D. C., Concord, Mass.,	The Minute-Man, 1775.	Doll & Richards.
944	Whitney, Annie, Boston,	Sketch—Charles Sumner.	Artist.
945		Portrait bust.	
946	French, D.M., Newburyport, Mass.,	Bust—J. G. Whittier.	Artist.
947	Whitney, Annie, Boston,	Roma.	Artist.

(*Annex, Gallery No. 42.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.	OWNER.
948	Kendricks, D. T., Boston,	*Foggy Day at the Beach.	Artist.
949	De Blois, F. B., Boston,	Licola, Italy.	Artist.
950	Leland, Henry, Boston,	Portrait.	H. Thouron.
951	Way, C. Granville, Paris,	An Old Friend.	Artist.
952	Martin, Miss L. E., Boston,	Flowers (panel).	Mrs. Martin.
953	Champney, J. W., Boston,	Grandma's Pet.	T. Wiggleworth.
954	Martin, Miss L. E., Boston,	Flowers (panel).	Mrs. Martin.
955	Jarvis, Melicent, Boston,	Jeannette in her Studio.	Artist.
956	Snowe, Francis, Boston,	A Cloudy Day.	G. H. Chickering.
957	Robinson, T., Boston,	*An Old Team.	Artist.
958	Willard, William, Sturbridge, Mass.,	Portrait.	Artist.
959	Cobb, Darius, Boston,	Portrait.	Cyrus Cobb.
960	Holmes, P. H., Gardiner, Me.,	The Adirondacks from Vermont.	Artist.
961	Bacon, Henry, Paris,	*The Boston Boys and General Gage, 1775.	
962	Willard, W., Boston,	Portrait—Charles Sumner.	E. L. Bates.
963	Wild, H.G., Boston,	*Banks of the Nile.	Artist.
964	Cole, J. G. (deceased),	Portrait—Commodore D. Turner.	J. V. P. Turner.
965	Ulke, Henry, Washington,	Portrait—Charles Sumner.	Artist.
966	Weber, Carl, Philadelphia,	*Morning in the Alleghanies.	Artist.
967	Ulke, Henry, Washington,	*Portrait—General Grant.	Artist.
968	Pierson & Poincy,	Firemen's Parade in New Orleans, 1871.	W. McNeely.
969	Weber, Carl, Philadelphia,	*Reichenbach Falls, Switzerland.	Artist.
970	Andrews, E. F., Paris,	Portrait.	W. T. Carter.
971	Fowler, T. T., Philadelphia,	Work for the Day is Over.	Artist.
972	Raupp, Carl,	*Approaching Storm.	Dr. George Reuling.
973	Bierstadt, A., New York,	California Spring.	Artist.
974	Kaufmann, Theodore, Washington,	Influence of Electricity on Human Culture (ten subjects).	Artist.
975	Smith, Miss Mary, Jenkintown, Pa.,	Cluck and Chickens.	
975*a*	Wilson, Oregon (deceased),	*Woman's Devotion.	Dr. W. A. Wilson.
976	Moore, H. H., New York,	Almeh, a Dream of the Alhambra.	Artist.
977	Brown, G. L.,	*Niagara by Moonlight.	H. N. Barlow.
978	Guthers, Carl, St. Louis,	Awakening Spring.	Artist.
979	Birch, Thomas (deceased),	Perry's Victory on Lake Erie.	Thomas Birch.

NO.	ARTIST.	TITLE.	OWNER.
980	Johns, C. M., Pittsburg,	"To Tubal-Cain came many a one, And each one prayed For a strong steel blade."	Artist.
981	Noble, T. S., Cincinnati,	The Tramp.	Artist.
982	Boyle, F. T. L., Brooklyn,	*The Prayer of Judith.	Artist.
983	Bartlett, Jennie M., Minneapolis,	*Callas and Amaryllis (two panels).	Artist.

(*Annex, Gallery No. 42.*)

SCULPTURE.

NO.	ARTIST.	TITLE.	OWNER.
983*a*	Calverly, C., N.Y.,	Bronze bust of John Brown.	Union League Club.
984	Richards, D., Chicago,	Satisfaction.	
985	Fillans, Miss W., Wisconsin,	Portrait bust.	Chief-Justice Dixon, of Wisconsin.
986	Richards, D., Chicago,	Disgust.	
987	Whitney, Annie,	The Model.	
987*a*	Kretschman, E. A., Philadelphia,	The "Continental" Soldier and two portrait bronze medallions.	

(*Annex, Gallery No. 40.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.	OWNER.
988	Volkmar, Chas., Jr., Baltimore,	The Passing Shower (near Vichy, France).	Artist.
989	Rothermel, P. F., Philadelphia,	Macbeth meditating the Murder of Duncan.	Thomas Dolan.
990	Coleman, C. C., Rome,	Interior of St. Mark's, Venice.	Artist.
991	Healy, G. P. A., Chicago,	Portrait—Princess of Roumania.	E. B. McCagg.
992	Lea, Anna M., Philadelphia,	Portrait.	F. Macauley.
993	Furness, W. H., Jr. (deceased),	Portrait.	H. H. Furness.
994	Morrell, Mrs. I. Robinson, Paris,	*Washington Welcoming the Provision-Train.	Artist.
995	Winters, Miss Anna, Philadelphia,	*Daisies.	Artist.
996	Galvan, Mrs. S. M., Philadelphia,	*Roses.	Artist.
997	Willcox, W. H., Philadelphia,	One Hundred Years Ago.	Artist.
998	Spencer, Mrs. Lily M., Newark, N.J.,	*"Will you have some fruit?"	Artist.
999	Galvan, Mrs. S. M., Philadelphia,	*Roses.	Artist.
1000	Shaw, Annie C., Chicago,	*An Illinois Prairie.	Artist.
1001	Gunnison, Miss M. D., New York,	Portrait—Captain J. W. Gunnison.	Artist.
1002	Lambdin, J. R., Philadelphia,	Portrait—Bishop Alonzo Potter.	
1003	Hill, Thomas, San Francisco,	Home of the Eagle.	John A. Faull.
1004	Julio, E. B. D., New Orleans,	Gathering the Sugar-Cane.	Artist.
1005	Bierstadt, A., New York,	Mt. Hood, Oregon.	

NO.	ARTIST.	TITLE.	OWNER.
1006	Guthers, Carl, St. Louis,	"Ecce Homo."	
1007	Waugh, S. B., Philadelphia,	Portrait.	
1008	Wilson, Oregon, (deceased),	Portrait.	Dr. Wilson.
1009	Kaufmann, Theodore, Washington,	Admiral Farragut.	
1010	Rothermel, P. F., Philadelphia,	*Hypatia, the Neo-Platonic Philosopher, stripped and torn to pieces by the Christian mob of Alexandria.	Artist.
1011	Furness, W. H., Jr. (deceased),	Portrait.	H. H. Furness.
1012	Coleman, C. C., Rome,	Venice.	Mrs. W. Wilkeson.
1013	Furness, W. H., Jr. (deceased),	Portrait—Rev. W. H. Furness.	Rev. W. H. Furness.
1014	Peale, Rembrandt (deceased),	Portrait of the artist.	Mrs. R. Peale.
1015	Stanley, D. M., Detroit,	The Indian Signal.	Artist.
1016	Galvan, Mrs. S. M., Philadelphia,	*Flowers.	Artist.
1017	Elkins, H. R., Chicago,	Shasta, an extinct volcano of North California.	
1018	Sword, J. B., Philadelphia,	Trenton Falls, N.Y.	Artist.
1019	Hill, Thomas, San Francisco,	*Yosemite Valley.	Artist.
1020	Galvan, I. Ernest, Philadelphia,	*Roses (two panels).	Artist.
1021	Smith, T. Henry, Philadelphia,	Mind and Matter.	
1022	Audubon, J. J. (deceased),	*Covey of Blackcock.	Edward Harris.
1023	Simon, H., Philadelphia,	"Steady."	Artist.
1024	Herzog, H., Philadelphia,	*Norwegian Waterfall in Hallingdal.	Artist.
1025	Smith, Xanthus, Jenkintown, Pa.,	The Kearsarge and Alabama.	
1026	Eberhardt, W., Boston,	Portrait—Rear-Admiral Winslow, former Commander of the Kearsarge.	Citizens of Boston, who intend to present it to Memorial Hall.
1027	Wild, H., Boston,	El Majo de Granada.	H. H. Furness.

(*Annex, Gallery No. 40.*)

SCULPTURE.

NO.	ARTIST.	TITLE.	OWNER.
1028	Mundhenk, A., Cincinnati,	"Auld Lang Syne."	
1029	Kemys, E., New York,	*Panther and Deer.	Artist.
1030	Swayne, W. M., Philadelphia,	*Bust of W. H. Seward.	Artist.
1031	Swayne, W. M., Philadelphia,	*Bust of Abraham Lincoln.	Artist.
1032	Swayne, W. M., Philadelphia,	*Bust of Salmon P. Chase.	Artist.
1033	Hess, Geo., New York,	Bust of Bayard Taylor.	Artist.

(*Annex, Gallery No. 30.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.	OWNER.
1034	Ropes, Joseph, Philadelphia,	Tivoli.	Artist.
1035	Stewart, J. L., Philadelphia,	Marie.	W. S. Stewart.
1036	Healy, G. P. A., Chicago,	Portrait.	
1037	Schussele, C., Philadelphia,	Zeisberger preaching to the Indians.	J. Jordan.
1038	Trotter, N. H., Philadelphia,	*Wounded Buffaloes pursued by Prairie Wolves.	Artist.
1039	Moran, Thos., Newark, N.J.,	"Fiercely the red sun descending burned his way along the heavens."	Artist.
1040	Haseltine, W. S., Rome,	Natural Arch at Capri.	
1041	Briscoe, F. D., Philadelphia,	Wreckers.	
1042	Fassett, Mrs. C. Adèle, Washington,	Portrait—Chief-Justice Waite.	
1043	Gardner, Miss E. J., Paris,	The Fortune-Teller.	
1043*a*	King, Geo. W., Philadelphia,	View in the Tyrol.	
1044	Lambdin, G. C., Philadelphia,	On a Summer Sea.	Artist.
1045	Leland, Henry, Boston,	Portrait.	C. M. Leland.
1046	Harrison, Henry, Jersey City,	Portrait.	Miss Belle Dodd.
1047	Moran, Thos., Newark, N.J.,	*Valley of the Rio Virgen, Utah.	Artist.
1048	Rothermel, P. F., Philadelphia,	*Christian Martyrs in the Colosseum.	Artist.
1049	Moran, Thos., Newark, N.J.,	*Dream of the Orient.	Artist.
1050	Eakins, Thos., Philadelphia,	Portrait.	Artist.
1051	Leland, Henry, Boston,	Portrait.	C. M. Leland.
1052	Machen, W. H., Toledo, O.,	Still Life—Ruffed Grouse.	Artist.
1053	Craig, Thos. B., Philadelphia,	Indian Summer.	Artist.
1054	Rothermel, P. F., Philadelphia,	The Virtuoso.	Artist.
1055	Mayer, F. B., Baltimore,	The Attic Philosopher.	Artist.
1056	Coleman, C. C., Rome,	The Troubadour.	Henry Sampson.
1057	Smith, T. Henry, Philadelphia,	Portrait.	Mrs. Jos. Harrison.
1058	Healy, G. P. A., Chicago,	Portrait.	E. B. McCagg.
1059	Lea, Anna M., Philadelphia,	*A Patrician Mother.	Artist.
1060	Randle, Fred., Philadelphia,	Flowers.	
1061	Porter, S. C., Philadelphia,	Study of a Child.	
1062	Heaton, A. G., Philadelphia,	Washington as Ambassador at Fort Duquesne.	
1063	Kunath, Oscar, Munich,	*"He won't bite."	Artist.
1064	Kunath, Oscar, Munich,	Portrait.	

NO.	ARTIST.	TITLE.	OWNER.
1065	Richards, F. De B., Philadelphia,	Campagna di Roma.	Artist.
1066	Coleman, C. C., Rome,	Grand Canal, Venice.	James Bayley.
1067	Waugh, S. B., Philadelphia,	Portrait	
1068	Lea, Anna M., Philadelphia,	*Genevieve de Brabant.	Artist.
1069	Bonfield, W. V. der V., Philadelphia,	Drifting Snow.	
1070	Way, A. J. H., Baltimore,	Grapes (two panels).	
1071	John, Joseph, Philadelphia,	The Minstrel.	
1072	Moran, Peter, Philadelphia,	Settled Rain.	
1073	Weir, J. F., New Haven,	Portrait.	
1074	Peale, Rembrandt (deceased),	Washington; from life.	Chas. P. Herring.
1075	Waters, Mrs. S. C., Bordentown, N.J.,	*Still Life—Mallard Ducks.	Artist.
1076	Rosenthal, T. E., Munich,	"Remind me not that I alone Am cast out from the Spring."	W. E. Schmertz.
1077	Smith, Russell, Jenkintown, Pa.,	Mount Vernon in 1836.	
1078	Waugh, Ida, Philadelphia,	Cosette.	Artist.
1079	Wood, G. B., Jr., Germantown, Pa.,	Freddy Flechtenstein's Shop.	Artist.
1080	Smith, Russell, Jenkintown, Pa.,	Cave at Chelten Hills.	
1081	Pettit, G. W., Philadelphia,	Cremation of Julius Cæsar.	C. J. Harrah.
1082	Winner, W. E., Philadelphia,	Portrait.	Artist.
1083	Rothermel, P. F., Philadelphia,	The Landsknecht.	Matthew Baird.
1084	Williams, I. L., Philadelphia,	*October.	Artist.
1085	Weir, J. F., New Haven,	The Column of St. Mark's, Venice.	Geo. W. Jewett.
1086	Volk, Douglas, Chicago,	Vanity.	Artist.

SCULPTURE.

NO.	ARTIST.	TITLE.	OWNER.
1087	Rogers, Randolph, Rome,	Atala.	
1088	Passage, A. du, Paris,	Return from the Boar-Hunt.	Mrs. J. H. Johnson.
1089	Richards, D., Chicago,	Il Penseroso.	
1090	Reniers, P. C., Pittsburg,	Bust—Col. T. A. Scott.	
1091	Hess, Geo., New York,	*Lizzie's Pet.	Artist.
1092	Richards, D., Chicago,	Portrait bust.	Mrs. Laird Colyer.

(Annex, Gallery No. 44.)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.	OWNER.
1093	Reynolds, Sir Joshua (deceased),	Portrait—Mr. Groves.	Mrs. A. S. Hughes.
1094	Reynolds, Sir Joshua (deceased),	Portrait—Mrs. Groves.	Mrs. A. S. Hughes.

NO.	ARTIST.	TITLE.	OWNER.
1095	Peale, C. Wilson (deceased),	Portrait of Washington; from life.	Andrew L. Robinson.
1096	Wertmuller (deceased),	Portrait of Washington; from life.	S. Wagner.
1097	Smibert, John (deceased),	Portrait—P. Faneuil.	Massachusetts Historical Society.
1098	Kneller, Sir Godfrey (deceased),	*Portrait—Lord Baltimore; presented to the City of Annapolis by Queen Anne.	Titian R. Peale.
1099	Plantou, Mrs. (deceased),	Triumph of America, or the Treaty of Ghent.	Miss Plantou.
1100	Truman, E. (deceased),	Portrait—Thos. Hutchinson.	Massachusetts Historical Society.
1101	Sargent, Henry (deceased),	Portrait—General B. Lincoln.	Massachusetts Historical Society.
1102	(Unknown.)	Portrait—Alexander Hamilton.	E. Newland.
1103	Tenney, U. D., New Haven, Conn.,	Portrait—General Stark.	City of Manchester, N.H.

(*Annex, Gallery No. 44*).

WATER COLORS, DRAWINGS, ETC.

NO.	ARTIST.	TITLE.	OWNER.
1104	Herrick, H. W., Manchester, N. H.,	Grave of General Stark (water color).	City of Manchester, N.H.
1105	Herrick, H. W., Manchester, N. H.,	General Stark at Bunker Hill (water color).	City of Manchester, N.H.
1106	Herrick, H. W., Manchester, N. H.,	General Stark's Last Charge at Bennington (water color).	City of Manchester, N.H.
1107	Herrick, H. W., Manchester, N. H.,	General Stark as Trapper, captured by the Indians (water color).	City of Manchester, N.H.
1108	Herrick, H. W., Manchester, N. H.,	General Stark at Trenton (water color).	City of Manchester, N.H.
1109	McMurtrie, Miss L. G., Boston,	Geraniums (water color).	H. McMurtrie.
1110	Bliss, Lucia S., Boston,	*Lilium Auratum (water color).	Artist.
1111	Story, Annie B., Boston,	*Carnations (water color).	Artist.
1112	Bartlett, G. H., Boston,	Oak leaf (drawing).	Artist.
1113	Story, Annie B., Boston,	*Cherokee Roses (water color).	Artist.
1114	Bliss, Lucia S., Boston,	*Campanula.	Artist.
1115	Bliss, Lucia S., Boston,	Double Poppies.	Artist.
1116	Eddy, G. F., Boston,	*Gladiolus.	Artist.
1117	Bliss, Lucia S., Boston,	*Fringed Gentian and Golden Rod.	Artist.
1118	Bliss, Lucia S., Boston,	*Cardinal Flowers.	Artist.
1119	McMurtrie, Miss L. G., Boston,	Rhododendrons.	Artist.
1120	Robbins, Ella, Boston,	*Vase of Flowers.	Artist.
1124	Stengel, G. A., Boston,	Stuart's Washington (pen drawing).	G. Kaan.
1125	Alexander, Fanny, Boston,	Nella Feeding her Doves (pen drawing).	Rev. Arthur Lawrence.
1126	Steinhaus, William, New York,	Vienna Exhibition. (Two drawings.)	
1127	Brückner, Henry,	Commemorative Allegory (etching).	Henry Schile.
1128	Steinhaus, William, New York,	Wm. C. Bryant (pen drawing).	

NO.	ARTIST.	TITLE.	OWNER.
1129	Alexander, Fanny, Boston,	September (pen drawing).	Caroline Brewer.
1130	Bartlett, G. H., Boston,	Details from Andernach Church Door.	Artist.
1131	Benham, C. C., New Haven,	*Nubian Girl (burnt in wood).	J. H. Benham, Jr.
1132	Galindo, R. E.,	Arabesque design.	Ion Perdicaris.
1133	Hyatt, Mrs. Della, Boston,	Stork Tower in Reutlingen (water color).	Mrs. A. Hyatt.
1134	Wood, G. B., Philadelphia,	Rittenhousetown (water color).	Artist.
1135	Cabot, E. C., Boston,	Puddingstone Boulders, Brookline, Mass. (water color).	Mrs. S. Cabot.
1136	Eddy, G. F., Boston,	*Drummond Phlox (water color).	Artist.
1137	Sterling, Mrs. C. H.,	Oak leaves (water color).	Artist.
1138	Cabot, E. C., Boston,	Baker's Road (water color).	Mrs. S. Cabot.
1139	Catlin, George (deceased),	One hundred and twenty-six Illustrations of Indian Life.	Heirs of G. Catlin.
1140	Peacon, W. V., New York,	*Declaration of Independence (penmanship).	
1141	Venino, Franz, New York,	Fall of Carthage (crayon).	Artist.
1142	Cohen, T. T., Philadelphia,	The First Centennial (crayon).	Artist.
1143	Doolittle & Cortelyn, New York,	*Soliloquy of Friar Pacificus, Golden Legend (illumination).	Artist.
1144	Doolittle, E. S., New York,	*Prayer to the Virgin (illumination).	Artist.
1145	Greatorex, Mrs. Eliza, New York,	*Eighteen pen drawings illustrating Old New York.	Artist.
1146	Faber, Hermann, Philadelphia,	Daniel in the Lions' Den (water color).	Artist.
1147	Burns, C. M., Philadelphia,	The Power behind the Throne (water color).	Artist.
1148	Eakins, Thomas, Philadelphia,	*Base-Ball (water color).	Artist.
1149	Eakins, Thomas, Philadelphia,	*Whistling for Plover (water color).	Artist.
1150	Field, R. (deceased),	Thomas Jefferson—water color sketch from life, in the first year of his Presidency.	T. J. Miles.
1151	Hartwick, Hermann, New York,	American Cedar Forest (water color).	Artist.
1152	De Rose, A. L.,	Portrait—D. Crockett; with Autograph (water color).	John Durand.
1153	Robbins, Ella, Boston,	*Primroses (water color).	Artist.
1154	Miller, E. F., Columbus, O.,	Landscape (water color).	
1155	Robbins, Ella, Boston,	*Pansies (water color).	Artist.
1156	Darrah, Mrs. S. T., Boston,	*After the Storm (water color).	Artist.
1157	Miller, E. F., Columbus, O.,	Winter (water color).	
1158	Brown, G. L., Boston,	*Ariccia, near Rome (water color).	Artist.
1159	Wood, G. B., Jr., Germantown,	The Old Tinker (water color).	Artist.
1160	Brown, G. L., Boston,	*Study from Nature (water color).	Artist.
1161	Hurtel, P.,	Sketch (water color).	Artist.
1162	Adams, Miss E., Boston,	Study of a Head (water color).	Artist.

(*Annex, Gallery No. 44.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.	OWNER.
1163	Peale, C. Wilson (deceased),	Portrait—Mrs. General Cropper.	J. Cropper.
1164	West, Benjamin (deceased),	Portrait—Stephen Carmick, Signer of the Non-Importation Act.	Louis Carmick.
1165	Vanderlyn, J. (deceased),	Portrait—General Armstrong.	William Astor.
1166	Dunlap, William (deceased),	Portrait—Thomas Eddy.	New York Hospital.
1167	Morse, S. B. F. (deceased),	Portrait—General Lafayette.	City Hall, New York.
1168	Sully, Thomas (deceased),	Portrait—Commodore Decatur.	City Hall, New York.
1169	Jarvis, J. W. (deceased),	Portrait—Commodore Macdonough.	City Hall, New York.
1170	Trumbull, John (deceased),	Portrait—General Washington.	City Hall, New York.
1171	Waldo (deceased),	Portrait—General Jackson.	City Hall, New York.
1171*a*	Jarvis, J. W. (deceased),	Portrait—Commodore Perry.	City Hall, New York.

SCULPTURE.

NO.	ARTIST.	TITLE.	OWNER.
1172	Broome, Isaac, Pittsburg,	Base-Ball Players (Parian).	Ott & Brewer.
1173	Park, R. H., Florence,	*Birdie (bust).	Artist.
1174	Park, R. H., Florence,	*Summer.	Artist.
1175	Park, R. H., Florence,	*Purity.	Artist.
1176	Park, R. H., Florence,	*First Boots.	Artist.
1177	Park, R. H., Florence,	*Gardener's Daughter.	Artist.
1178	Park, R. H., Florence,	*First Sorrow.	Artist.
1179	Park, R. H., Florence,	*Sunshine.	Artist.
1180	Park, R. H., Florence,	*Sappho (statuette).	Artist.
1181	Park, R. H., Florence,	*Good-Morning.	Artist.
1182	Park, R. H., Florence,	*Sappho (bust).	Artist.
1183	Park, R. H., Florence,	*Rosebud.	Artist.
1183*a*	Rush (deceased),	Bust of Washington (clay model from life).	Alfred Young.
1183*b*	McDonald, W.,	Bust of Washington.	
1183*c*	Este, Mary Goddard, Cincinnati,	Iolanthe, King René's blind daughter.	Artist.
1183*d*	Henning, H.D.A., Baltimore,	Happy Days in the Valley of Nysa.	Artist.
1183*e*	Jacquier, Eli, Cincinnati,	*Bust of Shakspeare.	

(*Memorial Hall, Grand Central Hall, Gallery B.*)

SCULPTURE.

NO.	ARTIST.	TITLE.	OWNER.
1184	Story, W. W., Rome,	*Medea.	
1185	Foley, Miss M., Rome,	*Jeremiah.	Artist.

NO.	ARTIST.	TITLE.	OWNER.
1186	Turner, W. G., Florence,	*Fisherman's Daughter.	Artist.
1187	Connelly, P. F., Florence,	*Horse's head.	Artist.
1188	Haseltine, J. H., Rome,	*Fortune.	Artist.
1189	Connelly, P. F., Florence,	*Queen Philippa.	Artist.
1190	Connelly, P. F., Florence,	Thetis thinking how she may regain the birthright of her son Achilles.	New York Museum.
1191	Connelly, P. F., Florence,	*Lady Clare.	Artist.
1192	Powers, Preston, Florence,	*Bust of Charles Sumner.	Artist.
1193	Connelly, P. F., Florence,	*Helen of Troy.	Artist.
1194	Connelly, P. F., Florence,	*Diana Transforming Actæon.	Artist.
1195	Connelly, P. F., Florence,	*The Thread of Life.	Artist.
1196	Connelly, P. F., Florence,	*Viola.	Artist.
1197	Lawlor, John, London,	*The Emigrant.	Artist.
1198	Haseltine, J. H., Rome,	*Spring Flowers.	Artist
1199	Haseltine, J. H., Rome,	*Lucretia.	Artist
1200	Haseltine, J. H., Rome,	*Captivity.	Artist.
1201	Foley, Miss M., Rome,	*Cleopatra.	Artist
1202	Turner, W. G., Florence,	*Transition.	Artist.
1203	Haseltine, J. H., Rome,	*Cleopatra.	Artist.
1204	Handley, M., Rome,	America Honoring her Fallen Brave.	
1205	Stone, Horatio, Dr. (deceased),	Bronze vase.	J. C. Hoadley.
1206	Story, W. W., Rome,	*Beethoven.	Artist.
1207	Handley, M., Rome,	*Spring Crowning herself with Flowers.	
1208	Handley, M., Rome,	*Giotto.	
1209	Handley, M., Rome,	*Autumn Flowers.	Artist.
1210	Haseltine, J. H., Rome,	Duke of Leuchtenberg (equestrian statuette).	G. H. Schneider
1211	Haseltine, J. H., Rome,	*Lucia di Lammermoor.	Artist.
1212	Park, R. H., Florence,	The Mechanic—bronze portrait statue.	
1213	Palmer, E. D., Albany,	Bronze statue of Robert Livingston.	
1214	Stone, Horatio, Dr. (deceased),	Two bronze vases.	J. C. Hoadley.
1215	Bailly, J. A., Philadelphia,	Equestrian statue of Antonio Guzman Blanco, President of Venezuela.	
1216	St. Gaudens, Aug., New York,	Bust of Hon. William Evarts.	
1217	Rogers, Randolph, Rome,	Ruth.	James Douglas.
1218	Ream, Vinnie, Washington,	*Spirit of the Carnival	Artist.
1219	Mills, Theodore A.,	Eve.	
1220	Ream, Vinnie, Washington,	*The West	Artist.

NO.	ARTIST.	TITLE.	OWNER.
1221	Smith, R. C.,	Bust of President J. M. Sturtevant, of Illinois College.	
1222	Ream, Vinnie, Washington,	Miriam.	
1223	Rogers, Randolph, Rome,	Nydia, the Blind Girl of Pompeii.	James Douglas.
1224	Ream, Vinnie, Washington,	Bust of Senator Morrell.	
1225	Warren, O. L., New York,	Medallion of Edwin Forrest.	
1226	Harnisch, A. E., Philadelphia,	Bust of William J. Mullen.	W. W. Mullen.
1227	Connelly, P. F., Florence,	St. Martin Dividing his Cloak.	Mrs. B. Lawrence.
1227*a*	Fettweis, C. L., Jr., Cincinnati,	*Cast Away.	Artist.

(*Memorial Hall, Grand Central Hall, Gallery B.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.	OWNER.
1228	Van Reuth, E., Baltimore,	*Homage of America to the Spirit of her Institutions.	Artist.
1228*a*	Stuart, Gilbert,	The original portrait, from life, of Washington, painted in 1796. The only picture from life by Stuart, except the unfinished portrait in the Boston Athenæum.	J. Delaware Lewis.
1228*b*	Travers, W. T. K.,	Abraham Lincoln,	W. P. Webster.

(*Memorial Hall, Grand Central Hall, Gallery B.*)

ARCHITECTURAL MOSAICS.

NO.	ARTIST.	TITLE.	OWNER.
1229	Leonardi, Valewski, Rubicondi, Italy,	Memorial Altar.	Ordered for St. Clement's Church, Philadelphia.

(*Memorial Hall, Gallery K.*)

SCULPTURE.

NO.	ARTIST.	TITLE.	OWNER.
1230	Calverley,	Bas-relief likeness of Peter Cooper.	
1231	Lewis, Miss Edmonia,	*Death of Cleopatra.	Artist.
1232	Harnisch, A. E., Philadelphia,	Statue of Wm. J. Mullen.	W. W. Mullen.
1233	Fillans, Miss W.,	Medallion portrait.	
1234	Foley, Miss M., Rome,	Two medallions of Mary and William Howitt.	Artist.
1235	Turner, W. G., Florence,	*Night.	Artist.
1236	Turner, W. G., Florence,	*Morning.	Artist.
1237	Meynen, F., Philadelphia,	Statuette of the Madonna.	Artist.
1238	Tassara,	*Singing Angels (alto-rilievo).	Stephen H. Perkins
1239	Graef, Jos., New York,	Model of a monument to Dr. Wales.	
1240	Graef, Jos., New York,	*Saint Mary.	Artist.
1241	Graef, Jos., New York,	*The First Step.	Artist.
1242	Harnisch, A. E., Philadelphia,	Sketch for a monument to the Prisoner's Friend.	Artist.
1243	Graef, Jos., New York,	*Infant Bacchus.	Artist.
1244	Foley, Miss M., Rome,	Medallion—Mrs. T. B. Read.	
1244*a*	Ream, Vinnie, Washington,	Bust of a child.	

NO.	ARTIST.	TITLE.	OWNER.
1245	Ghetti, Antonio, New York,	*Monument to a child.	
1246	Gerardin, G., Philadelphia,	*Bouquet.	
1247	Meyer, H., New York,	Portrait of a boy.	
1248	Meyer, H., New York,	Portrait of a girl.	
1248*a*	Waugh, Ida, Philadelphia,	Saint Agnes.	L. de V. Judd.
1248*b*	Gordon, Joseph C., Philadelphia,	Inspiration (bas-relief).	Artist.
1248*c*	Gordon, Joseph C., Philadelphia,	Rosebud (alt-relief).	Artist.
1248*d*	Kappler, Tobias, New Haven, Conn.,	Medallion—Professor Agassiz.	
1249	Hartley, J. S., New York,	The Young Samaritan.	Artist.
1250	Benton, J. Dean, Philadelphia,	Metal model of Independence Hall.	E. C. Knight.

STAINED GLASS.

NO.	EXHIBITOR.	TITLE.
1250*a*	Falck, Otto F., & Co., Boston,	The Prodigal Son.
1250*b*	Slack, S., & Co., Glass Stainers, Orange, N.J.,	Specimens of figure subjects and arabesque designs. This firm has on exhibition in Memorial Hall some fine specimens of their work in antique and rolled cathedral glass, an article used extensively by them in the production of their principal work, such as figure, symbolic, heraldic, and decorated windows, for both ecclesiastical and domestic purposes.
1250*c*	West, Samuel, Boston,	Specimens of figure subjects and arabesque designs.
1250*d*	Gibson, Geo., Philadelphia,	Saint Michael.

(*West Arcade, on Façade of Memorial Hall.*)

SCULPTURE.

NO.	EXHIBITOR.	TITLE.
1251	Eyre, M. Dickerson, Florence,	*Leda.
1252	Eyre, M. Dickerson, Florence,	*Rebecca.
1253	Eyre, M. Dickerson, Florence,	*Hercules and Antæus.
1254	Eyre, M. Dickerson, Florence,	*Ruth.
1255	Eyre, M. Dickerson, Florence,	*Juno.
1256	Eyre, M. Dickerson, Florence,	*Genius of the Vatican.
1256*a*	Seelig, M. J., & Co., Williamsburg, N.Y.,	Æsculapius (spelter).
1256*b*	Seelig, M. J., & Co., Williamsburg, N.Y.,	Cupid (spelter).
1256*c*	Seelig, M. J., & Co., Williamsburg, N.Y.,	A vase (spelter).

(*East Arcade, on Façade of Memorial Hall.*)

SCULPTURE.

NO.	EXHIBITOR.	TITLE.
1257	Eyre, M. Dickerson, Florence,	*Psyche.
1258	Eyre, M. Dickerson, Florence,	*Bust of Michael Angelo.
1259	Eyre, M. Dickerson, Florence,	*Vulcan.
1260	Eyre, M. Dickerson, Florence,	*Bust of Dante.
1261	Eyre, M. Dickerson, Florence,	*Autumn.
1262	Eyre, M. Dickerson, Florence,	*Spring.
1263	Eyre, M. Dickerson, Florence,	*Hebe.

(*Memorial Hall, Gallery Z.*)

DRAWINGS, ETCHINGS, ETC.

NO.	ARTIST.	TITLE.	OWNER.
1264	Darley, F. O. C., Claymont, Del.,	Puritans Barricading their Houses against the Indians (crayon).	Artist.
1265	Martin, Mrs. L.E., Boston,	*Sweet Home (porcelain painting).	Artist.
1266	Martin, Mrs. L.E., Boston,	*Flowers (porcelain painting).	Artist.
1266*a*	Cabot, E. C., Boston,	Woods at Beverly Farms (water color).	Mrs. C. Storrow.
1267	Reich, Jos.,	Portrait (charcoal).	Artist.
1268	Ferris, S. J., Philadelphia,	Portrait (crayon).	Artist.
1269	Fabronius, D. C., Boston,	Portrait (crayon).	Artist.
1270	Alexander, Miss F., Boston,	A Prayer.	G. W. Wales.
1271	Moran, Thomas, Newark, N.J.,	*Hiawatha and the Serpent.	Artist.
1272	Moran, Thomas, Newark, N.J.,	*Hiawatha and Nokomis.	Artist.
1273	Moran, Thomas, Newark, N.J.,	*Death of Kwasind.	Artist.
1274	Moran, Thomas, Newark, N.J.,	*Hiawatha's Fasting.	Artist.
1275	Moran, Thomas, Newark, N.J.,	*Hiawatha's Childhood.	Artist.
1276	Moran, Thomas, Newark, N.J.,	*Death of Tawpak.	Artist.
1277	Darley, F. O. C., Claymont, Del.,	A Merciful Man is Merciful to his Beast.	Artist.
1278	Schell, F. B., Philadelphia,	On the Susquehanna (drawing on wood).	Artist.
1279	Stokes, John,	Dead Blue Jay.	Artist.
1280	Forbes, Edwin, New York,	*Life Studies of the Great Army. (Forty etchings)	Artist.
1281	Fabronius, D. C., Boston,	Portrait of a baby (crayon).	Artist.
1282	Munzig, G. C.,	Portrait in crayon.	Artist.
1283	Reed, J. C.,	Portrait of a lady (crayon).	Artist.
1284	Ellis, J. C.,	Portrait of a little girl (crayon).	Artist.
1285	Burdick, H. R.,	*Portrait in crayon.	Artist.
1286	Fabronius, D. C., Boston,	*Portrait of H.R.H. the Duchess of Edinburgh.	
1287	Swain,	Portrait of child (crayon).	Artist.

(*Memorial Hall, Gallery Y.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.	OWNER.
1288	Schwörer, A., Munich,	*A Surprise.	Stroefer & Kirchner.
1289	Wagner, A., Munich,	*Chariot-Race.	Stroefer & Kirchner.
1290	Mayer, A. L., Munich,	*Marguerite.	Stroefer & Kirchner.
1291	Kayser, E., Munich,	*The Convalescent.	Stroefer & Kirchner.
1292	Epp, R., Munich,	*The Young Mother.	Stroefer & Kirchner.
1293	Köckert, F., Munich,	*Autumn.	Stroefer & Kirchner.
1294	Moreau, A., Paris,	*Field Flowers.	M. Knoedler & Co.
1295	Fichel, E., Paris,	*The Naturalist.	M. Knoedler & Co.
1296	Merle, H., Paris,	*Charity.	M. Knoedler & Co.

NO.	ARTIST.	TITLE.	OWNER.
1297	Meyer von Bremen,	The Rabbit-Seller.	M. Knoedler & Co.
1298	Cortazzo, O., Rome,	*Difficult to Rhyme.	M. Knoedler & Co.
1299	Beard, J. H., New York,	*"There's many a slip," etc.	M. Knoedler & Co.

CRAYONS.

NO.	ARTIST.	TITLE.	OWNER.
1300	Kurtz, W., New York,	Six crayon portraits.	Artist.

ART APPLIED.

(*Memorial Hall, Gallery Y.*)

NO.	EXHIBITOR.	SUBJECT.
1301	Stroefer & Kirchner, New York,	Eleven engravings illustrating Faust and Marguerite, after A. L. Mayer. Fine Art Books.
1302	Knoedler, M., & Co., New York,	Chromos and engravings.
1303	Speroni, J. L., New York,	Engravings on silver.
1304	Zoellner, L., New York,	Cameos.
1305	Paquet, A. C., Philadelphia,	Medals.
1306	Bachman, H. G., Philadelphia,	Ivory carvings.
1307	Overbaugh, A. W., New York,	Engraving on metal.
1308	Lebrethon, Jules, New York,	Cameos and medallions.

(*Memorial Hall, Gallery X.*)

NO.	EXHIBITOR.	SUBJECT.
1309	Prang, L., & Co., Boston,	Views of the Yellowstone National Park, and other specimens of chromo-lithography.
1310	Kaufmann, A. & C., New York,	Moonlight on the Nile, and other specimens of chromo-lithography; wall and ceiling decoration of Pavy's Japanese felted fabric.
1311	Bonet, Louis, New York,	Cameos.
1312	Hirrlinger, C. W., New York,	Enamels and enamel paintings.
1313	Barber, W. & C., Philadelphia,	Medals.
1314	Mitchell, Henry, Boston,	Two frames of specimens of stone gems and impressions of seals.
1315	Rowe, George A., 1037 Walnut Street, Philadelphia,	Three frames of specimens of engraving on precious stones and impressions of seals.

(*Memorial Hall, Second Story, Corridor.*)

NO.	EXHIBITOR.	SUBJECT.
1316	Bencke & Scott, New York,	"One Hundred Years Ago"—chromo-lithograph.
1317	Witteman Bros., New York,	Centennial Memorial.
1318	Cliver & Elway, Altoona, Pa.,	Frame composed of fifteen thousand pieces of wood, constructed without nail, screw, or glue.

(*Memorial Hall, Second Story, Room No. 1.*)

NO.	EXHIBITOR.	SUBJECT.
1319	Cohn, Louis H., & Co., New York,	Imitations of natural woods (wall paper). Natural wood prints. Impressions taken from all kinds of wood on paper, equal to veneer.
1320	Goth, Anthony, Bethlehem, Pa.,	Oil-painted washable wall paper. Specimens of wall and ceiling decoration.
1321	Rumbold, George W., New York,	Imitations of marbles (wall paper).
1322	Hazzard, R. T., Philadelphia,	Specimens of wall and ceiling decorations in paper and frescoed panels.
1323	Stoll, J. A., New York,	Decorative bas-reliefs.
1324	Hore, William, Philadelphia,	Inlaid book-case and work-boxes.
1325	Lange & Bros., St. Louis,	Inlaid show-case composed of one hundred and twenty thousand pieces of wood.

(*Memorial Hall, Second Story, Room No. 2.*)

NO.	EXHIBITOR.	SUBJECT.
1326	Hopson, Wm., Everett, Mass.,	Painted imitations of woods, and two table-tops, imitations of inlaid marbles.
1327	McGregor, G. S., Cleveland, O.,	Specimens of oak, walnut, and rosewood graining.
1328	National Chromo Co., Philadelphia,	Specimens of chromo-lithography.
1329	Gruger, Pearson E., Lancaster, Pa.,	Monumental engraving on marble.
1330	Foerster, Edmund, & Co., New York,	Breakwater at Calais, and other specimens of chromo-lithography.
1331	Colton, Zahm, & Roberts, New York,	Beatrice Cenci, and other specimens of chromo-lithography.
1331*a*	Hollerbach & Dieffenbach, New York,	Frames and specimens of mouldings.
1332	Frickenhaus, Otto, New York,	Designs for crochet and embroidery.
1333	Beeler, J. C., New York,	Ornamental painting on glass.
1334	Beeler, J. C., New York,	Pastel drawing of an Indian's head.
1335	Hoefel, Ferd., St. Louis,	Flowers—painting on glass.

(*Memorial Hall, Secona Story, Room No. 3.*)

NO.	EXHIBITOR.	SUBJECT.
1336	Latham, J., & Co., Boston,	Holy Family, and other specimens of chromo-lithography.
1337	Demorest, W. J., New York,	Old Oaken Bucket, and other specimens of chromo-lithography, and one frame of wood engravings engraved by Redman & Kenney.
1338	Graf Bros., Philadelphia,	Specimens of chromo-lithography, illustrating method of production.
1339	Kelley, Wm. J., New York,	Specimens of ornamental typography.
1340	Hunter, Thos., Philadelphia,	Tegner's Drapa, and other specimens of chromo-lithography.
1341	Hoover, Jos., Philadelphia, Pa.,	The Changed Cross, and other specimens of chromo-lithography, with two of the original oil paintings. Chromos and oil paintings framed. Publisher of fine chromos, wholesale lowest rates. Office and salesroom, 1129 Chestnut Street; factory, south-west corner of Thirteenth and Buttonwood Streets.
1342	Hoen, A., & Co., Baltimore,	The Continentals, and other specimens of lithography and chromo-lithography.

(*Memorial Hall, Second Story, Room No. 4.*)

NO.	EXHIBITOR.	SUBJECT.
1343	Perrine, W. H., D.D., Albion, Mich.,	Chromo-lithograph of Palestine.
1344	Vandusen, R., Weedsport, New York,	Four frames of lithographs (animals).
1345	Dwyer, Edward, Philadelphia,	Painting and inlaid mother-of-pearl on glass—Moonlight.
1346	Smith, Levi F., Philadelphia,	Chromo-lithograph—Proclamation of Emancipation.
1347	Palm, Chas., & Co., New York,	Specimens of C. Schuessler's patent transfer ornaments on glass.
1348	Mayer, Ferd., New York,	Mammoth crayon lithograph. Three specimens.
1349	Swank, J. W., Washington,	Free-hand penmanship.
1350	Meyer, James, Jr., New York,	Penmanship and pen drawings.
1351	Barlow, Joel H., Hudson City, N.J.,	Penmanship and pen drawing.
1352	Brückner, H., New York,	Roger Williams's Reception by the Indians (drawing).
1353	Brückner, H., New York,	Discovery of the Hudson River (drawing).
1354	Lockwood, Randolph & Co., New York,	Specimens of artificial boxwood for wood-engraving.
1355	Schmidt, Geo. S., Saratoga, N.Y.,	Silhouettes.
1356	North, Miss R. M., Philadelphia,	Bouquet drawn on silk.

NO.	EXHIBITOR.	SUBJECT.
1357	Frost, Philadelphia,	Sketches.
1358	Stehlin, Joseph, New York,	*Ancient altar carvings.
1359	Smith, G. B., Jersey City,	Shield composed of army badges worn in the late war.
1360	Pierce's Business College, 39 South Tenth Street, Philadelphia, Pa., Thomas May Pierce, M.A., Principal and Proprietor, Rev. John Thompson, Business Manager, residence 2002 Brandywine Street,	Specimens of penmanship and pen drawing. Brief description of the objects on exhibition in Pennsylvania Educational Hall. I. Penmanship.—(*a.*) Seven (7) sets of resolutions engrossed by order of the Philadelphia Board of Public Education at different times during the past five years, and borrowed from the owners for the purpose of showing the high order of talent employed by the College. (*b.*) The improvement in writing of fourteen hundred (1400) pupils of the College, showing the success of the penman as a teacher. (*c.*) A "reward of merit" engrossed by the penman, the like of which is given once a month to the pupil who makes the most improvement in writing during the month. (*d.*) A large piece of "Specimens of Spencerian Penmanship," and a set of resolutions, complimentary of the Principal, written by the penman, and a "deceiving picture" made with pen, brush, and pencil by the professor of drawing, each illustrating the power and ability of the executor. (*e.*) A piece of ornamental penmanship with a bouquet in the centre drawn with the pen, which with the drawings in the work done for the Board of Education, show the penman's skill in pen-drawing. II. Book-keeping.—(*a.*) A case of samples of Merchandise used by the pupils of the College in the transaction of business among themselves in the Actual Business Department, thus furnishing each pupil with an original and independent set of transactions for his books. (*b.*) Samples of College Currency used in the payment of bills, together with copies of the various business papers used by the students. III. Course of instruction.—(*a.*) A small piece of lettering naming the subjects taught. (*b.*) A Diploma setting forth the subjects of examination for graduation. IV. Objects of the Institution and Classes who patronize it.—A large piece of penmanship setting forth the same in detail. Particular merit which the Exhibitor claims for his Exhibit.—I. The highest order of talent in the penman in all the departments of work done with the pen. II. Superior plans for the improvement of the writing of pupils, in addition to the excellence of the teacher. III. Ingenious and successful plans for teaching Book-keeping and imparting a sound, practical, and economical preparation of young men for business life.

(*Memorial Hall, Second Story, Room No. 5.*)

1361	Centennial Commission,	Competitive designs of the Centennial Buildings.

(*Annex, Gallery No. 1.*)

STAINED GLASS.

NO.	EXHIBITOR.	SUBJECT.
1362	Fitzpatrick, A., & Co., Staten Island,	*Christ in the Temple, Saint George and Saint Augustine.
1363	Fitzpatrick, A., & Co., Staten Island,	*The Holy Family.
1364	Fitzpatrick, A., & Co., Staten Island,	*The Adoration of the Magi.
1365	Mittermaier, Max, Brooklyn,	Christ amid the Doctors.
1366	West, Samuel, Boston,	Saint Paul.
1367	McPherson, W. J., & Co.,	Knight in armor—after Giorgione.

ENGRAVINGS AND LITHOGRAPHS.

(*Annex, Gallery No. 18.*)

NO.	EXHIBITOR.	SUBJECT.
1368	Nichols, H. H., Washington,	Frame of surgical engravings on wood; frame of zoological engravings on wood.
1369	Mayer, Charles, Jersey City,	Frame of engravings on wood.
1370	Harley, J. S., New York,	Nine frames of engravings on wood (pictorial).
1371	Smart, T. L. & R. M., New York,	Frame of engravings on wood (mechanical).
1372	Muller, R. A., Brooklyn,	Frame of engravings on wood (pictorial).
1373	Redman & Kenney, New York,	Specimens of engravings on wood.
1374	Faas, Frederick, Philadelphia,	Specimens of engravings on wood.
1375	Scattergood & Hammar, Philadelphia,	Engravings on wood (machinery).
1376	Breuker & Kessler, Philadelphia,	Commercial lithographic engraving.
1377	Leonhardt, Theodore, & Son, Philadelphia,	Commercial lithographic engraving.
1378	Gay, George, Philadelphia,	Decorated china and glass.
1379	Steele Bros., Philadelphia,	American decorated china and engraved glass.

(*Annex, Gallery No. 20.*)

NO.	EXHIBITOR.	SUBJECT.
1380	Bevington & Co., Philadelphia,	Decorated china.
1381	Bien, Julius, 16 and 18 Park Place, New York,	Lithographic and photo-lithographic Illustrations, maps, charts, and scientific engravings and drawings. Publisher of Walker's Statistical Atlas of the United States, and Album of the International Exhibition.
1382	Lauderbach, James W., Philadelphia,	Four frames of engravings on wood, and illustrated books.
1383	Thompson, J. C., Providence,	Two frames of engravings on wood.
1384	Lehman & Bolton, Philadelphia,	Commercial lithographic engraving.
1385	Potsdamer & Co., Philadelphia,	Commercial lithographic engraving.
1386	Haas, Augustus, New York,	Electrotype reproductions of medals and bas reliefs.

(*Annex, Gallery No. 22.*)

NO.	EXHIBITOR.	SUBJECT.
1387	Sartain, John, Philadelphia,	Engravings on steel: The Iron-Worker; Christ Rejected; American Inventors; County Election; Zeisberger preaching to the Indians; two portraits.
1388	Sartain, Samuel, Philadelphia,	Engravings on steel: One of the Chosen; Evangeline; Clear the Track; two frames of portraits.
1389	Hollyer, Samuel, Guttenberg, N.Y.,	Engravings on steel: Flaw in the Title; Charles Dickens; frame of portraits.
1390	Perine, George E., New York,	Engravings on steel: Mother of the Lord; Better Land; Star-Spangled Banner; seventeen frames of portraits and book illustrations. Picture engraving on steel executed in all its branches. Portraits a specialty. Fine work in all styles at reasonable prices.
1391	McRae, J. C., New York,	Engravings on steel; The Day we Celebrate; First in Peace; Raising of the Liberty-Pole.
1392	Burt & Hinshelwood, New York,	*Engraving on steel: The Pet Lamb. Owned by R. E. Moore.
1393	Pease, J. Ives, Canaan, Conn.,	Engraving on steel: Old 76 and Young 48; frame of bank-note vignettes.
1394	Whitechurch, R. (deceased),	*Engraving on steel: Franklin before the Lords in Council. Owned by Thos. Kelly.
1395	Ritchie, A. H., New York,	Engraving on steel: Lady Washington's Reception.

NO.	EXHIBITOR.	SUBJECT.
1396	Kelly, Thomas, New York,	Two English engravings, after American artists: Rock of Ages; Mercy's Dream.
1397	Durand, A. B., New York,	Engravings on steel: Musidora; Ariadne; Declaration of Independence; frame of portraits.
1398	Volkmar, Charles, Baltimore,	Etchings on copper; two frames of landscapes.
1399	Brown, G. L., Boston,	Etchings on copper; frame of landscapes.
1400	Moran, Peter, Philadelphia,	Etchings on copper; five frames of animal subjects.
1401	Ferris, S. J., Philadelphia.	Etchings on glass and copper; two portraits of Fortuny.
1402	Hollyer, Samuel, Guttenberg, N.Y.,	Engraving on steel: Autumn.
1403	Andrews, Joseph (deceased),	Engraving on steel: Landing of the Pilgrims.
1404	Gugler, H., Washington,	*Engraving on steel: portrait of Washington, Owned by G. D. Patten, Jr.
1405	Whitechurch, R. (deceased),	Engraving on steel: Capture of the Serapis.
1406	Lang, George S., Philadelphia,	Engravings on copper: Landing of Columbus; Washington crossing the Delaware.
1407	Marshall, W. E., New York,	Three engravings on steel: one of Washington, two of Lincoln.
1408	Knoedler, M., & Co., New York,	English engravings after American artists: Return of the Mayflower; The Two Farewells; Out All Night; Niagara Falls; Woodland Vows; Too Near the War-Path.
1409	Lewis, Miss Edmonia, Rome,	*Asleep (group in marble); Hiawatha's Marriage; Old Arrow Maker and his Daughter (group in marble); terra-cotta busts of Longfellow, Sumner, and John Brown.
1410	Rogers, John, New York,	Twenty-nine groups of plaster statuary for house and lawn.

(*Annex, Gallery No. 24.*)

NO.	EXHIBITOR.	SUBJECT.
1411	National Bank Note Company, New York,	Specimens of bank-note engraving.
1412	American Bank Note Company, New York,	Specimens of bank-note engraving.
1413	Continental Bank Note Company, New York,	Specimens of bank-note engraving.
1414	Heath & McKendrick, Philadelphia,	Plaster figures and ornaments, and Scagliola pedestals.
1415	Rulon, S. A., Philadelphia,	*Ancient Hindoo idol.
1416	Faser, C., Philadelphia,	Architectural gilt frame.
1417	Spalding, H. M., Philadelphia,	Household art.
1418	Pope, A., Jr., Boston,	*Painted wood carving—Game.
1419	Fick, Frederick, Philadelphia,	Marble monumental bas-relief.
1420	French, Wm. H., Philadelphia,	Plaster ornaments for interior decoration.
1421	Fisher, Mrs. J Francis, Florence,	Mosaic table.
1422	Snowdon, T. W.,	Wood carvings of chamois.
1423	Wiesehahn, F.W. H., St. Louis,	Penmanship and pen drawings.
1424	Giddings, Thomas, Williamsport, Pa.,	Centennial frame carved by hand.

SCULPTURE.

(*Memorial Hall, Gallery N.*)

NO.	EXHIBITOR.	SUBJECT.
1425	Worthington Sons, North Amherst, Ohio,	Sandstone pedestal, from their quarries; presented to Memorial Hall.
1426	Sheldon & Slason, West Rutland, Vt.,	Marble pedestal, from their quarries; presented to Memorial Hall.

GREAT BRITAIN.

(*Memorial Hall, Galleries B, D, P, Q, R, S, T, Z.*)

[The initials appended to the names of artists in the following pages signify as follows: P.R.A., President, R.A., Academician, A.R.A., Associate, and A.E., Associate Engraver of the Royal Academy of Arts, England; P.R.S.A., President, R.S.A., Member of the Royal Scottish Academy.

When not otherwise stated, the artist is also the contributor.]

SCULPTURE.

NO.	ARTIST.	TITLE.
1	Adams-Acton, John, London,	Il Giuocatore de Castelletto. Life-size group of boy and dog, in Carrara marble. Lent by Sam'l Budgett, Esq.
2	Adams-Acton, John, London,	The Star of the Period. Ideal bust in marble.
3	Bailey, Edward Hodges. R.A. (deceased),	Bust of Flaxman. Lent by the Royal Academy, London.
3*a*	Bell, John, London,	Colossal group of "America," from the original marble at the Albert Memorial, reproduced in terra-cotta by Messrs. H. Doulton & Co.
4	Chantrey, Sir Francis Legatt, R.A. (deceased),	Bust of the late Benjamin West, P.R.A. Lent by the Royal Academy, London.
5	D'Epinay, Prospère, Rome,	The Spartan Boy. Bronze statue.
5*a*	Doulton, Henry, & Co.,	Terra-cotta reproduction of colossal group "America."
6	Gibson, John, R.A. (deceased),	Venus. Lent by Richard C. Naylor, Esq.
6*a*	Gower, Lord Ronald Leveson, London,	No. 1. Marie Antoinette, when Dauphiness, hunting at Fontainebleau, 1773. No. 2. Marie Antoinette on her Way to Execution, 16th October, 1793. No. 3. "It is Finished."
7	Joy, A. Bruce, London,	The Fairy Tale. Statuette of child.
8	Joy, A. Bruce, London,	Bust of a girl.
9	Joy, A. Bruce, London,	Bust of Napoleon III.
10	Joy, A. Bruce, London,	Medallions.
11	Wood, Marshall, London,	Marble statues.
12	Doolin, Walter, Dublin,	Two Celtic crosses, carved after the ancient Irish crosses in limestone. Exhibited in the grounds.
13	Morgan, George, London,	Frame of medals. Exhibited in South Kensington collection.
14	Wyon, J. S. & A. B., London,	One frame containing medals and seals.

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
1	Ansdell, Richard, R.A., London,	On the Hills—ptarmigan-shooting.
2	Ansdell, Richard, R.A., London,	The Anxious Mother.
3	Anthony, Mark, Hampstead,	Sunset after a Storm. Lent by Thomas Winter, Esq.
4	Archer, J., R.S.A., London,	Portrait of Mrs. Henry Joachim. Lent by Henry Joachim, Esq.
5	Archer, J., R.S.A., London,	The Three Sisters.
6	Armitage, Edward, R.A., London,	Julian the Apostate presiding at a Conference of Sectarians. Lent by the Corporation of Liverpool.
7	Barry, James, R.A. (deceased),	The Temptation in Paradise. Lent by the Society of Arts, London.

NO.	ARTIST.	TITLE.
8	Boughton, G. H., London,	God-Speed. Lent by A. M. Marsden, Esq.
9	Brett, John, London,	Morning among the Granite Boulders. Lent by Mrs. McEwen.
10	Buckner, R., London,	Portrait of Lady Marianne Alford. Lent by the Earl Brownlow.
11	Calderon, Philip H., R.A., London,	After the Battle. Lent by H. W. F. Bolckow, Esq., M.P.
12	Calderon, Philip H., R.A., London,	Desdemona. "She sang a song of willow." Lent by G. C. Schwabe, Esq.
13	Calderon, Philip H., R.A., London,	The Siesta. Lent by Messrs. Agnew & Sons.
14	Callcott, Sir Augustus Wall, R.A. (deceased),	Morning. A landscape. Lent by the Royal Academy, London.
15	Cameron, Hugh, R.S.A., London,	Age and Infancy. Lent by Jas. Stevenson, Esq.
16	Cauty, H. H., London,	Little Sunshine.
17	Clark, J., London,	The Sick Child. Lent by H. J. Turner, Esq.
18	Clark, J., London,	The Bird's Nest. Lent by Geo. Dibley, Esq.
19	Clint, Alfred, London,	Lake scene—Sunset.
20	Clint, Alfred, London,	Sunset—Hastings.
21	Cole, Vicat, A.R.A., London,	Misty Morning. Lent by J. C. Benten, Esq.
22	Cole, Vicat, A.R.A., London,	Noon. Lent by E. J. Reed, Esq., C.B., M.P.
23	Constable, John, R.A. (deceased),	The Lock. Lent by the Royal Academy, London.
24	Cooke, Edward William, R.A., Tunbridge Wells,	The Goodwin Lightship. Lent by Thos. Brassey, Esq., M.P.
25	Cooke, Edward William, R.A.,	The Rescue of a Barque on the Goodwins by the Van Kook North Deal Life-boat. Lent by Henry Dewhurst, Esq.
26	Cope, Charles West, R.A., London,	Launcelot Gobbo. Lent by R. Peacock, Esq.
27	Cope, Charles West, R.A., London,	Taming of the Shrew. Lent by J. Fielden, Esq., M.P.
28	Cope, Charles West, R.A., London,	The Marriage of Griselda. Lent by Geo. Moore, Esq.
29	Creswick, Thomas, R.A. (deceased),	Landscape. Lent by the Royal Academy, London.
30	Crofts, E., Düsseldorf,	Ligny. Lent by W. Howe, Esq.
31	Crowe, Eyre, London,	After a Run. Lent by Messrs. Agnew & Sons.
32	Crowe, Eyre, London,	Goldsmith's Mourners. (See J. Forster's "Life of Oliver Goldsmith.")
33	Daniell, William, R.A. (deceased),	View of the Coast of Scotland. Lent by the Royal Academy, London.
34	Dobson, William C. T., R.A., London,	Children's Children are the Crown of Old Men. Lent by J. Carolus Stirling, Esq.
35	Dobson, William C. T., R.A., London,	Nazareth. Lent by Wm. Bowman, Esq., F.R.S.
36	Dobson, William C. T., R.A., London,	The Widow's Son raised to Life.
37	Donaldson, Andrew B., London,	The Eve of the Battle—Jeanne d'Arc encouraging the Troops.
38	Elmore, Alfred, R.A., London,	Two Women shall be Grinding at the Mill. Lent by John Bowring, Esq.
39	Elmore, Alfred, R.A., London,	On the Housetops.
40	Elmore, Alfred, R.A., London,	Lenore.
41	Etty, William, R.A. (deceased),	Sleeping Nymph and Satyrs. Lent by the Royal Academy, London.
42	Faed, Thomas, R.A., Chigwell,	God's Acre. Lent by George Fox, Esq.
43	Faed, Thomas, R.A., Chigwell,	Baith Faither and Mither. Lent by H. W. F. Bolckow, Esq., M.P.
44	Field, W., London,	The Milkmaid's Song to Izaak Walton. Lent by W. S. Cookson, Esq.
45	Fildes, S. Luke, London,	Applicants for Admission to a Casual Ward. Lent by Thomas Taylor, Esq.
46	Fildes, S. Luke, London,	Betty. Lent by Isaac M. Marsden, Esq.
47	Frith, Wm. Powell, R.A., London,	The Marriage of H.R.H. the Prince of Wales in St. George's Chapel, Windsor, March 10, 1863. Lent by Her Majesty the Queen.
48	Frith, Wm. Powell, R.A., London,	The Railway Station. Lent by Messrs. Graves & Co.
49	Frith, Wm. Powell, R.A., London,	Pamela. Lent by H. W. F. Bolckow, Esq., M.P.
50	Fuseli, Henry, R.A. (deceased),	Thor Battering the Serpent of Misgard. Lent by the Royal Academy, London.

NO.	ARTIST.	TITLE.
51	Gainsborough, Thomas, R.A. (deceased),	Portrait of the Duchess of Richmond. Lent by Baron Lionel de Rothschild.
52	Gilbert, Sir John, A.R.A., Blackheath,	The First Prince of Wales. Lent by Edwin Lawrence, Esq.
53	Gilbert, Sir John, A.R.A., Blackheath,	The Battle of Naseby. Lent by Messrs. Agnew & Sons.
54	Gill, E., Sutton Hill,	Rhaiad Dú, Dol-y-Melynen, North Wales. Lent by Lewis Loyd, Esq.
55	Girardot, E. G., London,	Herr Carl Deichmann, violinist and composer.
56	Goodall, Frederick, R.A., Harrow Weald,	Cairo Fruit-Girl. Lent by Messrs. Pilgeram & Lefèvre.
57	Graham, Peter, London,	On the Way to the Cattle Tryst. Lent by Thomas Jessop, Esq., J.P.
58	Graham, Peter, London,	Wind. Lent by A. Brogden, Esq., M.P.
59	Grant, Sir Francis, P.R.A., London,	The late Viscount Hardinge, Governor-General of India, returning from the Battle of Ferozeshah. The background represents the captured camp and village of Ferozeshah. Lent by Viscount Hardinge.
60	Grant, Sir Francis, P.R.A., London,	Portrait of Mrs. Markham.
61	Grant, Sir Francis, P.R.A., London,	Portrait of Earl Russell, K.G. Lent by Earl Russell, K.G.
62	Hardy, Heywood, London,	The Disputed Toll. Lent by Messrs. Agnew & Sons.
63	Hayter, Sir George,	Portrait of Her Majesty in Coronation Robes. Lent by Her Majesty the Queen.
64	Herdman, R., R.S.A., Edinburgh,	Portrait of Thomas Carlyle (replica).
65	Hering, G. E., London,	A Rift in the Gloom, Glen Sannox. Lent by John Pender, Esq., M.P.
66	Hicks, G. E., London,	Will he do it?
67	Hilton, William, R.A. (deceased),	The Rape of Ganymede. Lent by the Royal Academy, London.
68	Hodgson, J. E., A.R.A., London,	A Needy Knife-Grinder. Lent by H. J. Turner, Esq.
69	Hodgson, J. E., A.R.A., London,	Returning the Salute. Lent by Thomas Taylor, Esq.
70	Holl, F., London,	"The Lord gave, the Lord hath taken away; blessed be the name of the Lord." Lent by F. C. Pawle, Esq.
71	Holl, F., London,	Village Funeral. "I am the Resurrection and the Life." Lent by John Akroyd, Esq.
72	Hook, James Clarke, R.A., Farnham,	From under the Sea. Lent by C. P. Matthews, Esq.
73	Horsley, John Callcott, R.A., London,	Lost and Found. Lent by J. Penn, Esq.
74	Horsley, John Callcott, R.A., London,	Stolen Glances. Lent by Messrs. Agnew & Sons.
75	Horsley, John Callcott, R.A., London,	Checkmate next Move. Lent by Thomas Jessop, Esq., J.P.
76	Hughes, Arthur, London,	The Convent Boat. Lent by George Trist, Esq.
77	Hunt, Holman, London,	Portrait of the artist.
78	Hunter, Colin, London,	Trawlers waiting for the Darkness. Lent by Alex. S. Stevenson, Esq.
79	Johnson, C. E., London,	The Last of the Spanish Armada.
80	Johnston, A., London,	The Marriage of the Covenanters. Lent by Jas. Virtue, Esq.
81	Jones, T. A., P.R.H.A., Dublin,	Limerick Lasses. Lent by John Lewis, Esq.
82	Jopling, Mrs. Louise, London,	The Five Sisters of York.
83	King, Haynes, London,	First Steps. Lent by Edward G. Barr, Esq.
84	Knight, C. P., Clifton, Bristol,	Newport Bay, Pembrokeshire.
85	Lance, George (deceased),	The Unwelcome Guest. Lent by G. E. Lance, Esq.
86	Landseer, Sir Edwin, R.A. (deceased),	The Traveled Monkey. Lent by Lord Northbrook.
87	Landseer, Sir Edwin, R.A. (deceased),	The Sick Monkey. Lent by Lord Northbrook.
88	Landseer, Sir Edwin, R.A. (deceased),	Portrait of Lord Ashburton. Lent by Lady Louisa Ashburton.
89	Landseer, Sir Edwin, R.A. (deceased),	Study of a Lion. Lent by Thos. H. Hills, Esq.

NO.	ARTIST.	TITLE.
90	Landseer, Sir Edwin, R.A. (deceased),	Study of a Lion. Lent by Thos. H. Hills, Esq.
91	Laurence, S., London,	Portrait of Robert Browning, the poet.
92	Lawrence, Sir Thomas, P.R.A. (deceased),	Portrait of the first Lord Ashburton. Lent by Lady Louisa Ashburton.
93	Lawrence, Sir Thomas, P.R.A. (deceased),	The Three First Partners of the Baring House, viz., Sir Francis Baring, first Baronet, his brother, John Baring, and his son-in-law, Charles Wall. Lent by Lord Northbrook.
94	Lehmann, Rudolph, London,	"La Rota" at the Foundling Hospital, Rome. Lent by Lewin Mozley, Esq.
95	Lehmann, Rudolph, London,	Portrait of Mrs. Henry Schlesinger. Lent by Henry Schlesinger, Esq.
96	Leighton, Frederick, R.A., London,	Summer Moon. Lent by Alfred Morrison, Esq.
97	Leighton, Frederick, R.A., London,	Interior of a Jew's House, Damascus. Lent by Bingham Mildmay, Esq.
98	Leighton, Frederick, R.A., London,	Eastern Slinger Scaring Birds in the Harvest Time—Moonrise.
99	Leslie, C. R., R.A. (deceased),	May Day in the Time of Queen Elizabeth. Lent by J. Naylor, Esq.
100	Leslie, George D., A.R.A, London,	Celia's Arbor. Lent by G. C. Schwabe, Esq.
101	Lewis, C. J., London,	Sunday Morning.
102	Lewis, C. J., London,	A Berkshire Barley-Field.
103	Lewis, John Frederick, R.A., Walton-on-Thames,	The Prayer of Faith healeth the Sick. Lent by J. Wardell, Esq.
104	Lutyens, C., London,	Portrait of F. Barne, Esq. Lent by F. Barne, Esq.
105	MacCallum, A., London,	Sultry Eve.
106	Maclaren, W., Capri, near Naples,	A Game of Knucklebones.
107	Maclise, Daniel, R.A. (deceased),	The Banquet Scene from Macbeth. Lent by F. W. Cosens, Esq.
108	Maclise, Daniel, R.A. (deceased),	The Wood Ranger. Lent by the Royal Academy, London.
109	MacWhirter, J., London,	Out in the Cold. Lent by Captain Hill.
110	MacWhirter, J., London,	Land of the Mountain and of the Flood. Lent by Kaye Knowles, Esq.
111	MacWhirter, J., London,	Valley of Slaughter. Lent by George Fox, Esq.
112	Marks, Henry Stacy, A.R.A., London,	The Ornithologist. Lent by George Fox, Esq.
113	Marks, Henry Stacy, A.R.A., London,	The Three Jolly Post-Boys. Lent by Messrs. Agnew & Sons.
114	Mason, George, A.R.A. (deceased),	Wind on the Wolds. Lent by Fred'k Leighton, Esq., R.A.
115	Millais, John Everett, R.A., London,	Early Days. Lent by C. P. Matthews, Esq.
116	Moore, Henry, London,	A Winter Gale in the Channel. Lent by H. Smith Wright, Esq.
117	Moore, Henry, London,	Storm coming on at Sunset—Coast of North Wales. Lent by E. Bollans, Esq.
118	Mulready, William, R.A. (deceased),	The Village Buffoon. Lent by the Royal Academy, London.
119	Mutrie, Miss A. F., London,	White Cactus.
120	Mutrie, Miss M. D., London,	Cottage Window.
121	Newton, Gilbert Stewart, R.A. (deceased),	Abelard. Lent by the Royal Academy, London.
122	Northcote, J., R.A. (deceased),	The Marriage of the Young Prince Richard, Duke of York, second son of King Edward the Fourth, with Anne, daughter of the Duke of Norfolk, May 15th, 1478. Lent by Her Majesty the Queen.
123	O'Neil, Henry, A.R.A., London,	A Volunteer.
124	Opie, John, R.A. (deceased),	Portrait of Hannah More. Lent by the Duke of Manchester.
125	Orchardson, W. Q., A.R.A., London,	Prince Henry, Poins, and Falstaff. Lent by C. Moxon, Esq.
126	Orchardson, W. Q., A.R.A., London,	Moonlight on the Lagoons, Venice. Lent by H. J. Turner, Esq

NO.	ARTIST.	TITLE.
127	Ouless, W. W., London,	Portrait of John Rous, Esq. Lent by Bart. Rous, Esq.
128	Ouless, W. W., London,	Portrait of Philip M. Westlake, Esq.
129	Owen, William, R.A. (deceased),	Boy and Kitten. Lent by the Royal Academy, London.
130	Paton, W. H., R.S.A., Edinburgh,	A Dell without a Name. Lent by Alex. S. Stevenson, Esq.
131	Peele, J. T., London,	Children and Goldfish.
132	Perugini, Charles Edward, London,	Portrait of Mrs. C. E. Perugini, younger daughter of the late Charles Dickens, Esq.
133	Pettie, John, R.A., London,	Touchstone and Audrey. Lent by C. Moxon, Esq.
134	Pettie, John, R.A., London,	Smuggler and Exciseman—Tussle for the Keg. Lent by W. P. Frith, Esq., R.A.
135	Pettie, John, R.A., London,	Portrait of G. H. Boughton, Esq. Lent by G. H. Boughton, Esq.
136	Pettie, John, R.A., London,	Sanctuary. Lent by George Fox, Esq.
137	Poole, P. F., R.A., London,	The Lion in the Path. Lent by Messrs. Agnew & Sons.
138	Pott, L. G., London,	Charles I. leaving Westminster Hall after his Trial. Lent by H. T. Elwes, Esq.
139	Poynter, Edward J., A.R.A., London,	The Ibis Girl. Lent by J. Wardell, Esq.
140	Poynter, Edward J., A.R.A., London,	The Golden Age. Lent by the Earl of Wharncliffe.
141	Poynter, Edward J., A.R.A., London,	The Festival. Lent by the Earl of Wharncliffe.
142	Prinsep, Val. C., London,	A Minuet. Lent by George Paine, Esq.
143	Prinsep, Val. C., London,	The Death of Cleopatra.
144	Raeburn, Sir Henry, R.A. (deceased),	Portrait of Alexander, Fourth Duke of Gordon. Lent by the Duke of Manchester.
145	Raven, John S., London,	The Quarries of Holmground, Lancashire.
146	Redgrave, Richard, R.A., London,	The Woodreeve's Orders.
147	Redgrave, Richard, R.A., London,	The Alarm of an Invasion.
148	Reynolds, Sir Joshua, P.R.A. (deceased),	Portrait of the artist. Lent by the Royal Academy, London.
149	Richmond, W. B., London,	Prometheus Bound.
150	Rigaud, John Francis, R.A. (deceased),	Samson and Delilah. Lent by the Royal Academy, London.
151	Rivière, B., London,	Circe and the Companions of Ulysses. Lent by J. K. Cross, Esq., M.P.
152	Rivière, B., London,	War Time. Lent by E. W. Buxton, Esq.
153	Roberts, T., London,	The Night before Bosworth. Lent by W. J. Alt, Esq.
154	Sant, James, R.A., London,	"Sometimes with most intensity gazing, I seem to see thought folded over thought." Lent by Mrs. Lancaster.
155	Sant, James, R.A., London,	Young Whittington. Lent by Samuel Lord, Esq.
156	Smart, J., A.R.S.A., Edinburgh,	The Gloom of Glen Ogle.
157	Stanfield, Clarkson, R.A. (deceased),	On the Scheldt near Lierkenshock. Lent by the Royal Academy, London.
158	Staples, Mrs. M. E., Sible Hedingham,	In Memoriam. Lent by W. F. Shawcross, Esq.
159	Starr, Miss Louisa,	Imogen. Lent by H. C. Howells, Esq., of New York.
160	Stone, Marcus, London,	My Lady is a Widow and Childless. Lent by Jas. Virtue, Esq.
161	Storey, George A., London,	Mistress Dorothy. Lent by G. C. Schwabe, Esq.
162	Storey, George A., London,	Only a Rabbit. Lent by Messrs. Agnew & Sons.
163	Stuart, Gilbert (deceased),	Portrait of Washington. Lent by J. Delaware Lewis, Esq.
164	Tadema, L. Alma, A.R.A., London,	Convalescence. Lent by W. H. Smith, Esq., M.P.
165	Tadema, L. Alma, A.R.A., London,	The Vintage Festival. Lent by Ernest Gambart, Esq.
166	Tadema, L. Alma, A.R.A., London,	The Mummy—Roman period. Lent by Messrs. Pilgeram & Lefèvre.

MINTON'S CHINA.

The same prices are charged as



at Messrs. Minton's Works.

THOMAS GOODE & CO.,

Artists and Designers in Porcelain,

SOUTH AUDLEY ST., GROSVENOR SQ., LONDON.

These beautiful new Pottery Galleries comprise 8 Houses, and are the largest in Europe.

BLOOD, WOLFE & CO.'S



XXX DUBLIN STOUT

AND

PALE ALES,



LIVERPOOL AND LONDON, ENGLAND.

Agents in all principal cities in the United States.

EDWARD & JOHN BURKE'S



CELEBRATED

EXTRA FOREIGN STOUT

AND

ALLSOPP'S BURTON ALES



To be obtained at the Restaurants in the Exhibition Buildings,

And sold by all first-class Liquor Dealers, Restaurateurs, Hotels &c., in the whole of the United States.

Established 1801.

JONAS BROOK & BROTHERS

Meltham Mills, near Huddersfield,

MANUFACTURERS OF

SEWING, CROCHET, AND EMBROIDERING COTTON,

DEPÔTS:

49, Cannon Street, London, E.C. | 10, Garthland Street, Glasgow.
36, Fountain Street, Manchester. | 93, Boulevard de Sebastopol, Paris.

WM. HY. SMITH & CO., 32, Greene Street, New York, Sole Agents for the U.S.

BROOK'S PATENT GLACÉ SPOOL COTTON,

BROOK'S SIX CORD SOFT FINISH SPOOL COTTON,



BROOK'S PATENT GLACÉ THREAD 50

BROOK'S SIX CORD 50

Lengths

J. BROOK & BROS MELTHAM MILLS 200 YDS

Warranted.

FOR HAND AND MACHINE USE.

Lengths

J. BROOK & BROS MELTHAM MILLS 200 YDS

Warranted.

FOR HAND AND MACHINE USE.

BROOK'S PATENT GLACÉ THREAD, IN WHITE, BLACK, AND COLORS.

The extraordinary strength, smoothness, and durability obtained by this invention have secured for it great popularity, and it is consequently much imitated in inferior qualities. This Cotton is always labelled BROOK'S PATENT GLACÉ THREAD, and without their name and crest (a GOAT'S HEAD), the words "Glacé," or "Patent Glacé," do not denote that it is of their manufacture.

BROOK'S PATENT NINE AND SIX CORDS will be found of very superior quality, and are strongly recommended wherever a SOFT COTTON is preferred.

EXHIBITION PRIZES.

Only Medal .....London, 1851. | Only First Class Medal, Paris, 1855.
Prize Medal .....London, 1862. | Gold Medal.....Paris, 1867.

ONLY DIPLOMA OF HONOUR, VIENNA, 1873.

NO.	ARTIST.	TITLE.
167	Topham, F. W. W., London,	The Fall of Rienzi, the last Roman Tribune. Lent by the Corporation of Liverpool.
168	Turner, J. M. W., R.A. (deceased),	Dolbadden Castle, North Wales. Lent by the Royal Academy, London.
169	Wallis, H., London,	Across the Common. Lent by Charles G. Clement, Esq.
170	Wallis, H., London,	The Stone-Breaker. Lent by Temple Soanes, Esq.
171	Walton, F., Dorking,	Crossways Farm, near Dorking. "One of the olden time."
172	Ward, Edward M., R.A., London,	Chesterfield's Anteroom. Lent by George Fox, Esq.
173	Ward, Edward M., R.A., London,	Lady Teazle's Spinster Days.
174	Ward, Mrs. Henrietta, London,	The Poet's First Love. Lent by A. Brogden, Esq., M P.
175	Ward, Mrs. Henrietta, London,	A Scene from the Childhood of the Old Pretender.
176	Ward, James, R.A. (deceased),	An Arab Horse. Lent by Charles J. Freake, Esq.
177	Watts, George F., R.A., London,	Portrait of John Everett Millais, R.A. Lent by J. E. Millais, Esq., R.A.
178	Watts, George F., R.A., London,	Portrait of Frederick Leighton, R.A. Lent by F. Leighton, Esq., R.A.
179	Weigall, Henry, London,	Portrait of the late Duke of Wellington, K.G. Lent by the Dowager Countess of Westmoreland.
180	Weigall, Henry, London,	Portrait of Alexandra, Princess of Wales.
181	Wells, Henry Tanworth, R.A., London,	Portrait of the Right Hon. W. E. Forster, M.P. Lent by the Right Hon. W. E. Forster, M.P.
182	Wells, Henry T. R.A., London,	Volunteers at a Firing Point, with portraits of Colonel The Hon. W. J. Colville, Lieut.-Colonel Lord Elcho, Lieut.-Colonel Sir Henry Halford, Bart., Major Drake, Royal Engineers, Captain Horatio Ross, Captain Heaton, Stewart Pixley, Esq., Martin R. Smith, Esq., and Edward C. Ross, Esq.
183	Wells, Henry T., R.A., London,	Alice.
184	West, Benjamin, P.R.A. (deceased),	The Death of General Wolfe. Lent by Her Majesty the Queen.
185	West, Benjamin, P.R.A. (deceased),	Christ Blessing Little Children. Lent by the Royal Academy, London.
186	Wilkie, Sir David, R.A. (deceased),	Reading the Gazette. Lent by Joseph Fenton, Esq.
187	Wilkie, Sir David, R.A. (deceased),	Boys Digging for a Rat. Lent by the Royal Academy, London.
188	Wilson, Richard, R.A. (deceased),	Portrait of the artist. Lent by the Royal Academy, London.
189	Wynfield, D. W., London,	Fresh Flowers. Lent by George Dibley, Esq.
190	Wynfield, D. W., London,	The Death of Buckingham.
191	Yeames, William F., A.R.A., London,	The Appeal to the Podestà. Lent by Messrs. Agnew & Sons.
192	Yeames, William F., A.R.A., London,	Flowers for Hall and Bower. Lent by Messrs. Agnew & Sons.
193	Zoffany, Johann, R.A. (deceased),	The Meeting of the Members of the Royal Academy, London. Lent by the Royal Academy, London.

WATER COLOR PAINTINGS.

NO.	ARTIST.	TITLE.
1	Absolon, J., London,	The Beacon. Lent by C. R. Cheffins, Esq.
2	Beavis, R., London,	Returning Home from the Autumn Fairs—Early Snow. Lent by David Duncan, Esq.
3	Brierly, O. W., London,	Blake going on board the "Resolution" off Dover to take command of the Fleet fitted out against the Dutch, June, 1652. Lent by Messrs. Vokins.
4	Callow, W., London,	The Grand Canal, Venice, looking toward Santa Salute.
5	Callow, W., London,	Menagio on the Lake of Como.
6	Cattermole, George (deceased),	The Death of Duncan. Lent by George Giles, Esq.
7	Cox, David, Jr., London,	Donne Castle. Lent by F. A. Argles, Esq.
8	Cox, David, Jr., London,	Mountain Solitude. Lent by Captain Baldwin.

NO.	ARTIST.	TITLE.
9	Donaldson, A. B., London,	Ludlow Churchyard.
10	Fahey, E. H., London,	A Cloudy Day on the Moulsford Downs.
11	Fripp, A. D., London,	Young England. Lent by P. G. Hewett, Esq., F.R.S.
12	Fripp, A. D., London,	Starring in the Provinces. Lent by W. S. Cookson, Esq.
13	Fripp, A. D., London,	The Coming Storm. Lent by H. Drake, Esq.
14	Gilbert, Sir John, A.R.A., Blackheath Road,	Visit of King Francis the First of France, the Queen of Navarre, Madam d'Estampes, and the Cardinal of Lorraine to the Workshop of Benvenuto Cellini.
15	Gillies, Mrs. M., London,	Prospero and Miranda. Lent by James Horsfall, Esq.
16	Goodall, E. A., London,	The Rialto. Lent by F. A. Argles, Esq.
17	Goodall, E. A., London,	The Ancient Causeway near the Pyramids of Sakhara.
18	Goodall, Walter, London,	The Lottery Ticket. Lent by Jones Gibb, Esq.
19	Haghe, Louis, London,	The Tepidarium of the Baths (Pompeii). Lent by T. Woodgate, Esq.
20	Haghe, Louis, London,	His Holiness Pope Pius IX. administering the communion to the gentlemen of his household, and to persons of distinction, in the Sistine Chapel, in the Vatican. Lent by R. M. Knowles, Esq.
21	Haghe, Louis, London,	The Night Watch.
22	Hargitt, E., London,	A Highland Glen. Lent by R. Newbold, Esq.
23	Jenkins, J. J., F.S.A., London,	En Route. Lent by H. A. Hunt, Esq., C.B.
24	Johnson, E. K., Sible Hedingham,	A Study. Lent by J. Galsworthy, Esq.
25	Johnson, H., London,	The Carrara Mountains from Lerici, Gulf of Spezzia. Lent by E. Cohen, Esq.
26	Jopling, J. M., London,	Flossy. Lent by the Right Hon. Cowper Temple, M.P.
27	Jopling, J. M., London,	Winter. Lent by H. S. Bicknell, Esq.
28	Jopling, J. M., London,	In the Conservatory.
29	Knight, J., London,	A Morass. Lent by Henry Crowley, Esq.
30	Linton, J. D.,	Washing the Beggars' Feet on Maundy-Thursday. Lent by A. Dunbar, Esq.
31	May, W., London,	Homeward Bound. Lent by E. J. Reed, Esq., C.B., M.P.
32	Mole, J. H., London,	Somebody Coming. Lent by Latimer Clark, Esq.
33	Montalba, Miss Clara, London,	Blessing a Tomb, Westminster.
34	Naftel, P. J., London,	Isle of Skye.
35	Newton, A. P., London,	Mountain Gloom, Glencoe. Lent by F. W. Strugnell, Esq.
36	Newton, A. P., London,	Left by the Tide.
37	O'Connor, J., London,	St. Paul's, Thanksgiving-day. (In distemper.) Lent by Lord R. L. Gower.
38	Severn, A., London,	Waves by Moonlight. Lent by the Duchess of Westminster.
39	Severn, A., London,	Old Chelsea before the Thames Embankment. Lent by Alfred Tylor, Esq., F.G.S.
40	Smallfield, F., London,	Italian Nurse and Child.
41	Smallfield, F., London,	Genoese Flower-Girl.
42	Stillman, Mrs. M., London,	Sir Tristram and Queen Yseult.
43	Tadema, L. Alma, A.R.A., London,	The Picture. Lent by Ernest Gambart, Esq.
44	Tadema, L. Alma, A.R.A., London,	The Three Friends. Lent by Messrs. Pilgeram & Lefèvre.
45	Tadema, L. Alma, A.R.A., London,	History of an Honest Wife. Lent by Messrs. Pilgeram & Lefèvre.
46	Tayler, F., London,	Cattle ferry-boat landing at Kylarkin from the Isle of Skye, Scotland. Lent by W. Gibley, Esq.
47	Tayler, F., London,	Keeper's Daughter. Lent by W. Gibley, Esq.
48	Tayler, F., London,	A Meet in the Forest. Lent by W. Gibley, Esq.
49	Thomas, W. L., London,	The Girls' School.
50	Thorburn, A., A.R.A., London,	Duchess of Manchester. Lent by the Duke of Manchester.
51	Thorburn, A., A.R.A., London,	Lady Constance Grosvenor. Lent by the Duke of Westminster.

NO.	ARTIST.	TITLE.
52	Topham, F. W., London,	Listening to her Lover's Letter. Lent by R. M. Knowles, Esq.
53	Willis, H. B., London,	A Group of Highland Cattle in Glen Nevis, Western Highlands, Scotland. Lent by H.R.H. the Princess Louise (Marchioness of Lorne).
54	Willis, H. B., London,	A Group of Cattle on the Banks of the Hamble, in Hampshire. Lent by Mrs. George Moore.

DRAWINGS WITH PEN, PENCIL, OR CRAYONS.

ARTIST.	TITLE.
Leech, John (deceased),	Outlines in pencil. Lent by Miss C. E. Leech, London.

ENGRAVINGS.

NO.	ARTIST.	TITLE.
1	Barlow, T. O., A.R.A., London,	Prayer (after J. Phillip, R.A.).
2	Barlow, T. O., A.R.A., London,	Faith (after J. Phillip, R.A.).
3	Barlow, T. O., A.R.A., London,	Dolores (after J. Phillip, R.A.).
4	Barlow, T. O., A.R.A., London,	Sir James Paget, Bart. (after J. E. Millais, R.A.).
5	Brandard, E. P., Barnsbury,	Venice (after J. M. W. Turner, R.A.).
6	Brandard, E. P., Barnsbury,	Men-of-War off Plymouth—Rough Weather (after H. Dawson).
7	Cope, C. W., R.A., London,	"The Life School of the Royal Academy."
8	Edwards, Edwin, London,	Proofs of a work on "Old Inns":—Title-page, "Crown and Castle, Oxford;" back, "Scole Inn."
9	Edwards, Edwin, London,	Proofs of a work on "Old Inns."
10	Edwards, Edwin, London,	Martlesham Lion Inn and Sign.
11	Edwards, Edwin, London,	Scole Inn. The Sun, Feering.
12	Edwards, Edwin, London,	Half Moon, Bury. Rose and Crown, Sudbury.
13	Etching Club,	Etchings by members. Lent by Samuel Redgrave, Esq.
14	Evershed, Arthur, London,	Dry Points.
15	Evershed, Arthur, London,	Etchings.
16	Haden, F. S., London,	Calais Pier (after J. M. W. Turner, R.A.).
17	Haden, F. S., London,	Breaking up of the Agamemnon.
18	Heseltine, J. P., London,	Branscombe, Devon. Gainsborough Lane, Ipswich.
19	Jeens, C. H., London,	Parents of Christ seeking Him (after E. Armitage, R.A.).
20	Leighton, J., F.S.A., London,	Proofs of wood engravings, various (after drawings by artist).
21	Leighton, J., F.S.A., London,	Etchings printed from relief.
22	Lewis, Charles G., London,	The Horse Fair (after Rosa Bonheur).
23	Lewis, Charles G., London,	Highland Cattle—Early Morn (after Rosa Bonheur).
24	Lewis, Charles G., London,	Bouricairos crossing the Pyrenees (after Rosa Bonheur).
25	Lewis, Charles G., London,	Daniel in the Lions' Den (after B. Rivière).
26	Parkes, R. B., Hornsey,	Mrs. Abington as Miss Prue (after Sir J. Reynolds, P.R.A.).
27	Phillips, L. B., London,	The Rathhaus, Cologne.
28	Phillips, L. B., London,	The Canongate Tolbooth, Edinburgh.
29	Phillips, L. B., London,	John Knox's House, Edinburgh.
29a	Quick, W. M. R., London,	Specimens of engravings on wood.
30	Redgrave, Richard, R.A., London,	Help at Hand.
31	Redgrave, Richard, R.A., London,	Rustic Courtship.
32	Ridgway, W., London,	The Light of the World (after Holman Hunt).
33	Ridgway, W., London,	Pirates of the Mediterranean (after F. R. Pickersgill, R.A.).
34	Ridgway, W., London,	A Triumphal Procession (after T. Géraud).

NO.	ARTIST.	TITLE.
35	Saddler, J., London,	St. Michael's Mount, Cornwall (after Birket Foster).
36	Saddler, J., London,	Homeless (after G. Doré).
37	Saddler, J., London,	Going to the Christening (after A. Bellowes).
38	Saunders, G., London,	Choosing the Wedding Gown (after W. Mulready, R.A.).
39	Saunders, G., London,	The Valley Farm (after J. Constable, R.A.).
40	Sharpe, C. W., Maidenhead,	Play scene in Hamlet (after D. Maclise, R.A.).
41	Sharpe, C. W., Maidenhead,	Here Nelson fell (after D. Maclise).
42	Slocombe, C. P., Islington,	King Arthur's Castle, Tintagel, Cornwall.
43	Slocombe, C. P., Islington,	Stonehenge.
44	Slocombe, C. P., Islington,	Beach at Rottingdean, Sussex—chalk cliffs and boulders.
45	Stacpoole, F., London,	Circe and the Friends of Ulysses (after B. Rivière).
46	Stacpoole, F., London,	Ought and Carry One (after Miss A. Havers).
47	Swain, Joseph, London,	Pictures from "Punch."
48	Swain, Joseph, London,	Specimens of book and magazine illustrations.
49	Tayler, Frederick, London,	Illustrations to the "Deserted Village" of Oliver Goldsmith.
50	Tayler, Frederick, London,	The "L'Allegro" of Milton.
51	Tayler, Frederick, London,	The "Songs of Shakespeare."
52	Thomas, Percy, London,	Good-Night.
53	Thomas, Percy, London,	Miss Isabel Bateman.
54	Thomas, Percy, London,	Henry Irving, Esq.
55	Tomkins, Charles A., London,	Jochebed, mother of Moses (after Fred'k Goodall, R.A.).
56	Tomkins, Charles A., London,	Lady Gertrude Fitzpatrick (after Sir J. Reynolds, P.R.A.).
57	Tomkins, Charles A., London,	The Right Rev. J. W. Colenso, D.D., Bishop of Natal (after S. Sidley).
58	Uhlrich, H. S., Chiselhurst,	Three sets of wood engravings, portraits.
59	Ward, George R., London,	Earl of Harewood and Hounds (after Sir F. Grant, P.R.A.).
60	Ward, George R., London,	Mehemet Ali, Pasha of Egypt (after T. Brigstocke).
61	Willmore, A., London,	Dutch Boats landing Fish off Egmont (after E. W. Cooke, R.A.).
62	Willmore, A., London,	A Calm Morning on the Thames (after D. Cox).
63	Willmore, A., London,	Windsor Castle (after Birket Foster).

CANADA.

[Works of Art marked with an asterisk (*) are for sale. Information may be obtained at the office of the Canadian Commission, Main Building.]

(*Annex, Gallery No. 26.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.	OWNER.
1	Cresswell, W. N.,	Sheep.	Dr. John Salter.
2	Kane, Paul,	Chief of Prairie Tribes.	Hon. G. W. Allen.
3	Vogt, Adolph,	Habitans.	H. McMahon, Esq.
4	Day, F.,	Landscape.	
5	Verner, F. A.,	Winneshiek.	
6	Cresswell, W. N.,	In the Eastern Townships.	Dr. John Salter.
7	Perrè, H.,	*Autumn.	
8	Verner, F. A.,	*Hudson Bay Officials leaving Brûle Portage, on Rainy Lake (early morning).	
9	Kreighoff,	Winter in Lower Canada.	Mrs. Frothingham.
10	Cresswell, W. N.,	Pastoral.	Dr. John Salter.
11	Verner, F. A.,	*Wa-pa-sto-ka.	
12	Jacobi,	Morning Mist on the Ottawa.	A. Gilmore, Esq.
13	Forbes, J. C.,	Foundering of the Hibernia in Mid-Ocean.	
14	Verner, F. A.,	*Storm on Lake Ontario.	
15	Forbes, J. C.,	Beware.	
16	Hancock, H.,	*At Dundas, Ontario.	
17	Jacobi,	Mountains on the Ottawa.	A. Gilmore, Esq.
18	Day, F.,	Landscape.	
19	Martin, T. M.,	A Whisky Ring.	
20	Day, F.,	Landscape.	
21	Perrè, H.,	*Summer.	
22	Verner, F. A.,	*Indian Summer, Parry Sound.	
23	Day, F.,	Landscape.	
24	Sandham, H.,	On the river Godbout.	A. Gilmore, Esq.
25	Day, F.,	Landscape.	
26	Day, F.,	Landscape.	
27	Edson, A.,	The Owl's Head, Eastern Township.	H. McMahon, Esq.
28	Verner, F. A.,	*Ne-bah-quah-ous.	
29	Cresswell, W. N.,	Coast Sketch.	Major Walker.
30	Baigent, R.,	*Dead Canary.	
31	Millard, C. S.,	Scene in Wales.	J. M. T. Burnside.
32	Matthews, M.,	Lane in Oxfordshire.	
33	Martin, T. M.,	Still Life.	Warren Rock, Esq.
34	Millard, C. S.,	Rest.	Dr. Hall.
35	O'Brien,	Lords of the Forest.	Government of Ontario.
36	O'Brien,	Crossing the Ice.	E. Carter, Esq.
37	Fowler, D.,	Lilacs.	C. S. Gzowski, Esq.
38	Millard, C. S.,	Indian Tents.	Major John Walker.
39	O'Brien,	Pelé Islands.	Dr. J. Hall.
40	White, G. H.,	Stapel-y-Mall.	J. K. Kerr.
41	Millard, C. S.,	Snowdon.	A. Leask.
42	Fowler, D.,	Lilacs.	Government of Ontario.
43	Cresswell, W. N.,	Lake Superior.	Major Walker.
44	Cresswell, W. N.,	Sheep.	Major Walker.
45	Jacobi,	Landscape.	L. R. O'Brien, Esq.
46	O'Brien,	Ottawa.	

NO.	ARTIST.	TITLE.	OWNER.
47	Sandham, H.,	Point des Monts.	H. Langley, Esq.
48	Hoch, I.,	Old Well in the Woods.	Government of Ontario.
49	Cresswell, W. N.,	Thunder Cape, Lake Superior.	Major Walker.
50	Jacobi,	Landscape.	J. M. T. Burnside, Esq.
51	Fowler, D.,	Partridges.	I. T. Rolph, Esq.
52	Way,	Old Saw-mill.	
53	Edson,	A Trout Brook.	A. I. Pell, Esq.
54	Way,	On the Androscoggin.	T. Kershaw, Esq.
55	Millard, C. S.,	On the Mad River.	A. Chapman, Esq.
56	Fowler, D.,	Castle of Ischia.	J. M. T. Burnside, Esq.
57	Way,	Pumpkin Harvest.	D. A. Crane, Esq.
58	Way,	Morning after the Fishing.	F. Kershaw, Esq.
59	Jacobi,	Sunset.	C. A. Drummond, Esq.
60	Matthews, M.,	A Woodland Stream.	J. C. Forbes.
61	Fowler, D.,	Kirkstall Abbey.	J. M. T. Burnside, Esq.
62	Fowler, D.,	Pigeons.	Dr. C. Leggo.
63	Edson,	Trespassers.	A. I. Pen, Esq.
64	Edson,	Reapers.	T. A. Crane, Esq.
65	Matthews, M.,	Twilight.	C. S. Gzowski, Esq.
66	O'Brien,	Indian Summer.	E. Carter, Esq.
67	Millard,	The Snowdon Ridge.	L. R. O'Brien, Esq.
68	Millard,	Dolwydellan Castle, Wales.	W. H. Howland, Esq.
69	Fowler, D.,	Flowers.	H. Hancock, Esq.
70	Millard,	North Wales.	J. A. Fraser, Esq.
71	Cresswell,	Lime-Kilns.	Major Walker.
72	Jacobi,	Sketch.	J.. M. T Burnside, Esq.
73	Martin, T. M.,	Beech.	G. Hague, Esq. [treal.
74	Fowler, D.,	Hollyhocks.	Art Association, Mon-
75	Jacobi,	Sunset.	C. A. Drummond, Esq.
76	Fowler,	Grebes.	H. McMahon, Esq.
77	Weston, I.,	Snowbird and Pigeon.	W. F. Kay, Esq.
78	Fowler, D.,	Syringa.	J. A. Fraser, Esq.
79	Matthews, M.,	At Fairfield, Oxfordshire, England.	Hon. W. Cayley.
80	Millard,	Wild Wales.	J. A. Fraser, Esq.
81	O'Brien,	*Through the Tower Archway, Parliament House, Ottawa.	
82	Martin,	Doorway at Westminster Abbey.	James Smith, Esq.
83	Millard,	Welsh Mountain Scene.	R. W. Laird, Esq.
84	Weston, I.,	Making War on the Forest.	
85	Weston, I.,	Study in the Woods.	Major Walker.
86	Jacobi,	Outlet of Gull Lake.	W. F. Kay, Esq.
87	Sandham,	The Lovers' Walk.	T. A. Crane, Esq.
88*a*	Vandyck,	Portrait of Prince Rupert, painted for George Abbot, Archbishop of Canterbury in the sixteenth century.	G. A. Gray, Esq.
88*b*	Vandyck,	Portrait of Owen Abbott, who was deputed by the English House of Commons to bring King George I. to the throne.	G. A. Gray, Esq.
89	Kane, Paul,	Indian Chief.	Hon. G. W. Allen.
90	Sandham, H.,	Mic-Mac Encampment on the Lower St. Lawrence.	D. Butler, Esq.
91	Day, F.,	Winter.	
92	Berthon, G. T.,	The Early Visitor.	Government of Ontario.
93	Jacobi,	The Montmorenci River.	G. A. Drummond, Esq.
94	Raphael, Wm.,	Habitans attacked by Wolves.	G. Scott, Esq.
95	Way, C. I.,	On the Androscoggin.	T. Kershaw, Esq.
96	Jacobi,	Sha-wan-e-gan Falls.	Art Association, Mon-
97	Day, F.,	On Gold River, Nova Scotia.	[treal.
98	Weston, I.,	*Fruit.	W. Scott, Esq.
99	Bertrand, E.,	*Street Scene in Algiers.	Dr. Robillard.
100	Edson,	Burnham Beeches.	Mrs. Frothingham.
101	Martin, T. M.,	*Nepigon.	
102	Martin, T. M.,	Ptarmigan Grouse.	H. Hague, Esq.

NO.	ARTIST.	TITLE.	OWNER.
103	Fraser, J. A.,	*A September Afternoon.	W. Angus, Esq.
104	Vogt, A.,	Horses at Water.	W. Clare, Esq.
105	Fraser, J. A.,	A Gleam of Morning Sunlight.	G. Scott, Esq.
106	Edson,	On the Line between Canada and the United States.	A. I. Pell, Esq.
107	Martin, T. M.,	Indian Summer, Georgian Bay.	Dr. Givins.
108	Edson,	Burnham Beeches.	Government of Ontario.
109	Fraser, J. A.,	Dry Bed of a Stream.	R. S. Woods, Esq.
110	Way, C. I.,	The Owl's Head, Lake Memphremagog.	R. C. Jamesson, Esq.
111	Vogt, A.,	Returning Home.	W. I. Sterling, Esq.
112	Martin, T. M.,	A Forest Home.	The National Club.
113	Day, F.,	Winter Scene in Nova Scotia.	
114	Sharpe, C.,	The Captive.	Jas. Ewan, Esq.
115	Vogt, A.,	Taking a Breath of Morning Air.	Mrs. G. Frothingham.
116	Sandham, H.,	Old Fort Chambley, Richelieu River.	Miss Gale.
117	Sandham, H.,	On the Godbout River.	W. Notman, Esq.
118	Fraser, W. L.,	*Clouding on Mount Elephantis.	W. Angus, Esq.
119	Way, C. I.,	In the White Mountains.	T. Kershaw, Esq.
120	Fraser, W. L.,	A Pool in the Woods.	G. S. Brush, Esq.
121	Jacobi,	Falls of St. Anne.	I. McLachlan, Esq.
122	Vogt, A.,	The Last Ride.	W. F. Kay, Esq.
123	Martin, T. M.,	*"This Side up with Care."	
124	Bridgman & Foster,	Portrait.	
125	Schreiber, Mrs.,	Goat and Lamb.	
126	Jacobi,	Timber Slide.	A. Gilmore, Esq.
127	Bridgman & Foster,	Portrait of J. L. Hutchinson, Esq.	P. G. C. K. T. Penn.
128	Martin, T. M.,	Fruit.	James Smith, Esq.
129	Verner, F. A.,	Indians Gambling.	
130	Hancock,	Autumn in Canada.	Government of Ontario.
131	Cresswell, W. N.,	The Wreck.	
132	Vogt,	*The Grey Battery.	H. McMahon, Esq.
133	Day, Forshaw,	Landscape.	
134	Forbes, J. C.,	Portrait of D. Forbes, Esq. [eral.	
135	Bridgman & Foster,	Ex-Governor Jewell, Postmaster-Gen-	
136	Fyte,	Fruit (old picture).	G. A. Gray, Esq.
136*a*	Lely, Sir Peter,	Portrait of General Vesey Abbott, "of the Blues," Major-General, and Receiver of all the Revenues of England in King William III.'s reign.	G. A. Gray, Esq.
137	Forbes, J. C.,	His Excellency the Earl of Dufferin, Governor-General of Canada.	
138	Martin, T. M.,	Grouse.	H. Hague, Esq.
139	Day, F.,	Sleighing in Nova Scotia.	
140	Martin, T. M.,	Summer Noon.	
141	Day, F.,	River scene.	
142	Day, F.,	River scene.	
143	Hancock, H.,	*Lake Inckbracke.	C. Parsons, Esq.
144	Lely, Sir Peter,	Portrait of Lady Molyneux.	G. A. Gray, Esq.
145	Day, F.,	Marble Head, Nova Scotia.	
146	Fraser, I. A.,	Oat Harvest in Lower Canada.	Government of Ontario.
147	Schreiber, Mrs.,	Olivia.	

"What Olivia really felt gave me some uneasiness. In this struggle between prudence and passion, her vivacity quite forsook her, and every opportunity for solitude was sought."

148	Lely, Sir Peter,	Portrait of Lady Falkland.	G. A. Gray, Esq.
149	Schreiber, Mrs.,	Joan of Arc.	
150	Bridgman, I. W.,	Portrait of W. H. Frazer, Esq.	
151	De Witte,	Kidderminster Abbey, England.	G. A. Gray, Esq.
152	Day, F.,	Landscape.	
153	Vandervelde,	Ship Firing a Salute.	G. A. Gray, Esq.
154	Lely, Sir Peter,	Portrait of the wife of Major Mordecai Abbott.	
155	Weston, J.,	Bunch of Grapes.	Wm. Notman.
156	Martin, Henry,	Flowers.	H. Langley.

FRANCE.

(*Memorial Hall, Central Gallery East, North Side.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
1	Muraton, Mrs. E., Paris,	Monkey amidst the Fruit.
2	Lesrel, A. A., Paris,	A Nobleman (reign of Louis XIII.).
3	Protais, P. A., Paris,	The Royal French Guard, 1776.
4	Guillon, Adolph, Paris,	Landscape.
5	Blanc, C. L., Paris,	Floral Offerings to the Holy Mother, Naples.
6	Veron, A. R., Paris,	Storm—Entrance to the Harbor of Boulogne.
7	Brest, Fabian, Paris,	Coffee-House in Persia.
8	Feyen-Perrin, F. N. A., Paris,	Melancholy.
9	Coninck, P. de, Paris,	Italian Shepherd-Girl.
10	Ségé, A., Paris,	Coast Scene.
11	Bartholdi, F. A., Paris,	Old California.
12	Rosier, A., Paris,	Evening in the Harbor of Venice.
13	Yon, Edmond C., Paris,	The River Seine, near Marolles.
14	Viger, H. J. L., Paris,	Empress Josephine and Family, 1814
15	Bartholdi, F. A., Paris,	New California.
16	Feyen-Perrin, F. N. A., Paris,	Antique Dance.
17	Castiglione, G., Paris,	Visiting the Uncle Cardinal.
18	Lortet, L., Oullins,	View on Mont Blanc.
19	Curzon, A. F. de, Paris,	The Serenade.
20	Bellel, J. J., Paris,	Landscape.
21	Michel, Ernest B., Montpellier,	Decameron.
22	Sain, E. A., Nanterre,	Family Scene in the Pyrenees.
23	Dupres, L. Victor, Paris,	Watering Cattle.
24	Hanoteau, H., Paris,	Feeding the Hens.
25	Legat, Léon, Paris,	Landscape with figures.
26	Antigna, I. P. A., Paris,	The Shipwrecked.
27	Antigna, I. P. A., Paris,	The First Step in Crime.
28	Curzon, P. A. C., Paris,	Ruth and Boaz.
29	Benouville, A., Paris,	Suburbs of Palestrina, Italy.
30	Bellel, J. J., Paris,	Market-Street in Constantine
31	Masson, Miss A., Paris,	Still Life.
32	Brunet-Houard, P. A., Fontainebleau,	Dog and Monkey, Circus.
33	Ulmann, B., Paris,	Dancing Gipsy Girl (Spain).
34	Feyen-Perrin, F. N. A., Paris,	A Mother and Child.
35	Lebel, Edmond, Paris,	Italian Shepherd-Girl.
36	Montfallet, D., Paris,	The Minstrel.
37	Hillemacher, E. E., Paris,	Wedding Gifts.
38	Maignan, Albert, Paris,	Hélène at the Fountain.
39	Leyendecker, F. M., Paris,	Still Life.
40	Gide, T., Paris,	Studying.

(*Memorial Hall, Gallery E.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
41	Feyen, Eugène, Paris,	Regatta in the English Channel.
42	Pallière, J. L., Paris,	Visiting the Confessor.
43	Kuwasseg, C. J., Sen., Paris,	View in the Tyrol.

NO.	ARTIST.	TITLE.
44	Schenck, A. F., Ecouen,	Sheep in a Snow-Storm.
45	Saintin, Jules Emile, Paris,	Child and an Apple.
46	Notermann, Zach., Paris,	Before the Court.
47	Castiglione, G., Paris,	The Warrants (Haddon Hall Castle).
48	Duran, Carolus, Paris,	Portrait of Mlle. Croizette.
49	Schenck, A. F., Ecouen,	Sheep on the Heath.
50	Brest, Fabius, Paris,	Yard of the Grand Mosque in Trebizond.
51	Plassan, A. E., Passy,	In Front of the Looking-Glass.
52	Viger, H. J. L., Paris,	Remember the Poor.
53	Bellée, L. G. de, Paris,	Winter Landscape.

GOBELIN TAPESTRIES.

NO.	ARTIST.	TITLE.
54	The Gobelin Manufactories in Paris, Beauvais, and Gobelin,	Collection of nine tapestries.

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
55	Chaillou, N., Lagny-le-Sec,	The Watermelon.
56	Landelle, Ch., Paris,	A Fellah Woman (Egypt).
57	Sain, E. A., Nanterre,	The Convalescent.
58	Reniè, Jean Emile, Passy,	Landscape.
59	Colzmann, M., Paris,	A Court Scene.
60	Maillart, D., Paris,	The Bird's Nest.
61	Legat, L., Paris,	Village on the River-Bank.
62	Perrault, L., Paris,	Repose.
63	Clèment, A. F., Paris,	The Death of Julius Cæsar.
64	Muraton, Mrs. E., Paris,	An Antique Room.
65	Brunet-Houard, P. A., Fontainebleau,	Interior of a Menagerie.
66	Reniè, Jean Emile, Passy,	Winter Landscape.
67	Comte, P. C., Paris,	Training Rat-Dogs.
68	Saintin, Jules Emile, Paris,	Lonely.
69	Chartran, T., Paris,	Angelica and Roger.
70	Clèment, A. F., Paris,	On the Sea-Shore.
71	Luminais, E. V., Paris,	Savages and Cattle.
72	Jacomin, A. L., Paris,	An Armorer of the Seventeenth Century.
73	Comte, P. C., Paris,	The King's Entertainment.
74	Adan, L. Emile, Paris,	Consultation.
75	Prion, Louis, Paris,	School for Young Satyrs.
76	Becker, Georges, Paris,	Rizpah protecting the Bodies of her Sons from the Birds of Prey (II. Samuel xxi. 10).
77	Maignan, Albert, Paris,	The Sentinel.
78	Groiseilliez, M. de, Paris,	The Meadows of Moussy.
79	Reynaud, F., Paris,	Market in Naples.
80	Harpignies, A. X., Paris,	Landscape near Renard.
81	Rudaux, E., Caudebec-les-Elbeuf,	Interruption.
82	Protais, P. A., Paris,	Soldiers at a Halt.
83	Leleux, Mrs. Emilie, Paris,	The Doctors' Consultation.
84	Saintin, Jules Emile, Paris,	The Laundress.
85	Salabert, F., Paris,	View on Lake d'Annecy.
86	Faivre-Duffer, L. S., Paris,	Venus led by Love.
87	Ballot, Mrs. A., Paris,	Meditation.
88	Huas, P. A., Paris,	The First Coquetry.
89	Leleux, Armand, Paris,	Indiscretion.
90	Rapin, A. J., Paris,	Lake in the Woods of Marfontaine.
91	Rivey, A., Paris,	Young Venetian Girl.
92	Trupheine, A. J., Paris,	Drawing-School.
93	Lebel, Edmond, Paris,	Butcher in Trastevere (Italy).
94	Chevrier, I., Place de Beaune, Saone.	Captured Mice.

NO.	ARTIST.	TITLE.
95	Dubos, Miss A., Paris,	The Big Sister.
96	Luminais, E. V., Paris,	King Morvan.
97	Courdouan, V., Toulon,	Cannes (Alpine view).
98	Dumaresque, A., Paris,	The Congress of Geneva, 1873.
99	Benouville, A., Paris,	The Banks of the Nive.
100	Pabst, C. Alf., Paris,	Alsatian Bride.
101	Rosier, A., Paris,	Morning on the Lagoons of Venice.
102	Chevrier, I., Place de Beaune, Saone,	Mouse in the Library.
103	Saintin, Jules Emile, Paris,	Leda and the Swan.
104	Hirsch, Alphonse, Paris,	The First-Born.
105	Villebesseyx, G., Paris,	Staircase in the new Opera-House, Paris.
106	Dubouchet, H.,	St. Anthony's Day.
107	Zuber, H. J., Auteuil,	Forest in Normandy.

SCULPTURE AND PORCELAIN.

NO.	ARTIST.	TITLE.
108*a b*	Sèvres Porcelain Manufactory,	Two vases.
109	Girard, N. J., Paris,	Iphigenia Sacrificed (marble).
111	Sèvres Porcelain Manufactory,	Vase.
112	Cordier, Ch., Paris,	Arabian Woman (marble and bronze statue).
113*a b*	Sèvres Porcelain Manufactory,	Two vases.
114	Bartholdi, A., Paris,	The Young Vine-Grower (bronze).
115*a b*	Sèvres Porcelain Manufactory,	Two vases.
116	Fèlon, Joseph,	L'Oceani (granite).
117	Sèvres Porcelain Manufactory,	Vase.
118	Schroeder, Louis, Paris,	Etruscan Art.
119*a b*	Sèvres Porcelain Manufactory,	Two vases.

(*Memorial Hall, Gallery Z.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
120	Ballavoine, J. F., Paris,	The Bouquet.
121	Chevrier, J., Place de Beaune, Saone,	Rats in a Gothic Hall.
122	Coroenne, H., Paris,	Salutation.
123	Baucè, J. A., Paris,	Interior of a Sheep-Cote.
124	Montfallet, A., Paris,	The Juggler (time of Louis XIII.).
125	Lepesqueur, H., Paris,	The Beautiful Innkeeper.
126	Yon, Edmond C., Paris,	River Seine near Marolles.
127	Sebillot, Paul, Paris,	Trees on the Sea-Shore.
128	Laporte, M., Paris,	Betrothed.
129	Colzmann, M., Paris,	An Old History.
130	Salles-Wagner, Mrs. A., Nimes,	Holy Mother and Child.
131	Chagot, E., Paris,	The Beach of St.-Briac.
132	Lays, J. P., Lyons,	Basket with Flowers.
133	Delobbe, F. A., Paris,	Going Home from the Fields.
134	Fery, Miss V., Paris,	Artistic objects.
135	Daubigny, Karl, Paris,	Landscape.
136	Dameron, E., Paris,	The Pyramids.
137	Accard, E., Paris,	The Two Sisters.
138	Petit, Eugène, Paris,	Spring Flowers.
139	Blum, Maurice, Paris,	A Consultation.
140	Trouillebert, P. D., Paris,	Remembrance.
141	Blum, Maurice, Paris,	A Painful Operation.
142	Lays, J. P., Lyons,	Basket with Fruit.
143	Dumaresque, A., Paris,	Declaration of Independence, United States of America, 4th July, 1776.
144	Masure, J., Paris,	Shores of the Bay of San Juan.

NO.	ARTIST.	TITLE.
145	Sirouy, A., Paris,	A Japanese Lady.
146	Guillon, A., Paris,	After the Rain.
147	Chaillou, N., Lagny-le-Sec,	Public Assistance in Paris.
148	Chevrier, J., Place de Beaune, Saone,	Mouse in an Antique Room.
149	Morin, Léonard, Paris,	Flower-Market at the Madeleine.
150	Dupré, Victor, Paris,	Banks of the River Marne.
151	Nicholas, Miss M., Paris,	The Alphabet.
152	Houard-Brunet, P. A., Fontainebleau,	The Horse Fair.

SCULPTURE.

NO.	ARTIST.	TITLE.
153	Perrey, N. A., Paris,	A Young Shepherd (marble).
154	Vasselot, A. de, Paris,	Portrait of M. Auzoux (bronze).
155	Devaux, F. A., Rouen,	Louis Bouilhet (marble).

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
156	Bouillard, A. M. L., Paris,	Hope.
157	Muraton, A., Paris,	A Monk.
158	Revel, C., Paris,	The Miser.
159	Beliard, E., Paris,	Banks of the River Oise (Winter).
160	Oudinot, A., Paris,	Low Tide at Villeville.
161	Notermann, Z., Paris,	Auction Sale.
162	Duverger, T. E., Ecouen,	The School.
163	Salles-Wagner, Miss A., Nimes,	The Little Fisher.
164	Montfallet, A., Paris,	Summer Amusements near Versailles.
165	Hirsch, A., Paris,	The Model.
166	Collette, A., Paris,	A French Peasant Girl.
167	Munier, E., Paris,	Refreshment.
168	Leleux, Armand, Paris,	At the Fountain.
169	Selim, Mrs. H., Paris,	Divine Love.

(Memorial Hall, Gallery I.)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
170	Gide, T., Paris,	An After-Dinner Nap.
171	Yvon, A., Paris,	Napoleon the First.
172	Duverger, Th. E., Ecouen,	End of the Harvest.
173	Bruelle, Gaston, Paris,	Fishing-Boats.
174	Cabuzel, A. H., Paris,	A Visit to the Louvre.
175	Daubigny, K. P., Paris,	Valley of Pourville (Normandy).
176	Glaize, T. T. L., Paris,	The Flower-Girl.
177	Busson, Ch., Montoire,	Before the Rain.
178	Hillemacker, Ernest, Paris,	Napoleon I., with Goethe and Wieland.
179	Curzon, A. de, Paris,	View at Fort Napoleon.
180	Brissot de Warville, Saturnin, Compiègne,	Sheep-Pen.
181	Dumaresque, A., Paris,	Surrender of Yorktown.
182	Legat, L., Paris,	An Old Water-Mill.
183	Veron, A. R., Paris,	Banks of the River Seine.
184	Leleux, A., Paris,	The First Theft.
185	Bellel, J. J., Paris,	Suburbs of Constantine.
186	Richner, L. P. R., Paris,	Reminiscence of Raincy.
187	Clément, H., Paris,	A Fellah Girl (Egypt).
188	Ruagnat, F., Paris,	Landscape with Cattle.
189	Deshayes, Ch., Paris,	In the Forest.
190	Jacomin, H., Paris,	Check-mate.
191	Bellange, Eug., Paris,	Evening after the Battle.

NO.	ARTIST.	TITLE.
192	Rapin, A., Paris,	Morning—Valley of Bonnevoux.
193	Willenick, M., Paris,	L'Ospedaletto, Venice.
194	Kienlin, Jules, Paris,	The Party.
195	Bar, Alexandre de, Paris,	View at Boulak.
196	Lebel, E., Paris,	View in Italy.
197	Berthelemy, E., Paris,	Fishing-Boats going to Sea.
198	Feyen-Perrin, F. N. A., Paris,	The Lesson in Anatomy.
199	Renié, Jean Emile, Passy,	Interior of the Bas-Breaux.
200	Baron, Stephane, Paris,	Faust and Margaret.
201	Lesrel, A. A., Paris,	The Halberd-Seller.
202	Willenich, M., Paris,	The Naval Battle.
203	Cetner, A. de, Paris,	Salambo.

SCULPTURE AND PORCELAIN.

NO.	ARTIST.	TITLE.
204	Sèvres Porcelain Manufactory,	Vase.
205	Sèvres Porcelain Manufactory,	Vase.
206	Vasselot, A. de, Paris,	Chloe (bronze).
207*a*	Sèvres Porcelain Manufactory,	Two vases.
208	Sèvres Porcelain Manufactory,	Vase.
209	Cordier, Ch., Paris,	Christopher Columbus (bronze).
210	Sèvres Porcelain Manufactory,	Vase.
211	Marcellin, E., Paris,	Venus nursing Cupid (bronze).
212	Sèvres Porcelain Manufactory,	Vase.
213	Itasse, A., Paris,	Playing Cupid (marble).
214	Itasse, A., Paris,	John Crying (marble).
215	Itasse, A., Paris,	Boy and Snail (marble).
216	Itasse, A., Paris,	Sleeping Cupid (marble).
217	Itasse, A., Paris,	Christmas Gifts (marble).
218	Itasse, A., Paris,	Cupid Ready (marble).
219	Itasse, A., Paris,	The Last Hour (marble).
220	Itasse, A., Paris,	John Laughing (marble).
221	Itasse, A., Paris,	Day and Night (marble).
222	Lanson, E., Paris,	Bust (marble).
223	Roubeaud, L. A., Paris,	Child (marble).
224	Gautherin, J., Paris,	Two Good Friends.
225	Arson, A., Paris,	Partridges (bronze).
226	Loison, P., Paris,	The Young Convalescent (marble).
227	Félon, Paris,	Navigation (bronze).
228	Itasse, A., Paris,	Boy and Bird (marble).
229	Roubeaud, L. A., Paris,	A Young Girl (marble).
230	Galineau, J. A. de, Stockholm,	Queen Mab (marble).

(Memorial Hall, Grand Central Hall, Gallery B.)

SCULPTURE AND PORCELAIN.

NO.	ARTIST.	TITLE.
231	Crauk, Gustave, Paris,	MacMahon (bronze).
232*a*	Sèvres Porcelain Manufactory,	Two vases (porcelain.)
233	Sèvres Porcelain Manufactory,	Two vases (porcelain).
233*a*	Sèvres Porcelain Manufactory,	Starting for Cythera (painting on porcelain).
234	Cordier, Charles, Paris,	Priestess of Isis (bronze).

(Annex, Gallery No. 32.)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
235	Kienlin, Jules, Paris,	Louis XIII. and Anne of Austria.
236	Clairval, Mrs. M. T., Paris,	France in Mourning for Alsace and Lorraine.
237	Herpin, Léon, Paris,	The Hills of Moulineau.

NO.	ARTIST.	TITLE.
238	Zuber-Buhler, Paris,	The Dew.
239	Castelnau, P. de, Paris,	The Apollo Gallery in the Louvre.
240	Barrias, Felix J., Paris,	Electra (Victor Hugo).
241	Lambert, A. E., Paris,	The Marshes of Longpré.
242	Salles, J., Nimes,	The Little Brother.
243	Zuber-Buhler, Paris,	The Springs.
244	Renié, J. E., Passy,	Forest of Fontainebleau.
245	Bonnefoy, H., Paris,	Thistles.
246	Allemand, G., Lyons,	A Young Girl with Fruit.
247	Sebron, H., Paris,	Niagara Falls (Winter).
248	Mellée, A. L., Paris,	A Forest Road.
249	Chagot, E., Paris,	Wreck of a Sloop.
250	Sirouy, Ach., Paris,	The Prodigal Son.
251	Berchère, N., Paris,	Gale on the Nile during the Flood.
252	Cassagne, Armand, Paris,	The Cross-Road in the Forest.
253	Rochenoir, I. de la, Paris,	The Flood.
254	Salanson, Miss E., Paris,	Rest.
255	Mathieu, O. P., Paris,	The Nymph Echo bewailing the Death of Narcissus.
256	Carrier, Belleuse P., Paris,	The Sleeping Child.
257	Laurent, Henri, Paris,	Feeding the Sheep.
258	Couder, E. Gustave, Paris,	Alone in the House.
259	Dameron, E. Ch., Paris,	The Oaks of Grandmoulin.
260	Villa, E., Paris,	The Vegetable-Stand.
261	Huas, P. A., Paris,	Soap-Bubbles.
262	Sebron, H., Paris,	A Hebrew Wedding at Tangiers, Morocco.
263	Notermann, Z., Paris,	A St. Bernard Dog on the Alps.
264	Masson, Miss A., Paris,	Flowers.
265	Valadon, J. E., Paris,	The Neighbor's Cat.
266	Veron, A. R., Paris,	Park at Senlis.
267	Moullion, A., Paris,	The Birds' Paradise.
268	Garnier, Jules, Paris,	The Bather.
269	Biliard, E., Paris,	Interior of a Studio.
270	Herst, A., Paris,	The Falls at Doubs.
271	Grandschamp, Pinel de, Paris,	Oriental Fantasy.
272	Salles, Jules, Nimes,	A Young Girl of Procida.
273	Lacretelle, E., London,	The Royal Stables, London.

SCULPTURE.

NO.	ARTIST.	TITLE.
274	Dalou, J., Paris,	The Needle-Woman (bronze).
275	Felon, J., Paris,	The Hour of Rest (marble).
276	Lecointe, Paris,	Good-Bye (bronze).
277	Martin, F., Paris,	Negro Hunting (bronze).
278	Doublemard, A., Paris,	Bacchus's Education (bronze).
279	Durst, M., Paris,	The Laugher (bronze).

(Annex, Gallery No. 38.)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
280	Japy, Louis, Paris,	Valley in the Jura Mountains.
281	Martin, Ernest, Paris,	French Soldiers at the Foot of Mont Valérien.
282	Baux, Miss, Paris,	Salonican Woman.
283	Lacretelle, E., London,	Horses.
284	Jaquard, Claudius, Paris,	Prisoners redeemed at Morocco.
285	Duval, Jobbé, Paris,	Mysteries of Bacchus.
286	Landelle, Charles, Paris,	A Young Gipsy Girl.
287	Bar, Alexandre de, Paris,	Interior of a Forest.
288	Herst, A., Paris,	Spring.
289	Cherez, L.,	The Cours Venéon (Dauphiné).
290	Mathieu, O., Paris,	The Vanquished.

NO	ARTIST.	TITLE.
291	Jadin, E., Paris,	Sheikh Salah dead in his Tent—Souvenir of the Algerine Sahara.
292	Herpin, L., Paris,	The River Marne at Chermevières.
293	Tortez, V., Paris,	The Nymph Echo.
294	Monginet, C., Paris,	The Friends of the House.
295	Rivey, A., Paris,	Young Girl (time of Louis XIII.).
296	Kock, Miss Eliza, Paris,	"You can't have any."
297	Hugard, Claude, Paris,	Oaks on the Banks of l'Etang de Guirlande.
298	Yvon, Ad., Paris,	Cæsar.
299	Berchère, N., Paris,	After the Simoon.
300	Laporte, Emile, Paris,	Gathering Grapes.
301	Maillart, D., Paris,	A Young Italian Girl and Mandolin.
302	Bellel, J. J., Paris,	The Valley of Allevard.
303	Perrault, A., Paris,	The Bather.
304	Laporte, Emile, Paris,	Harvest Scene.
305	Collette, A., Paris,	The Reader.
306	Merry, B., Bougival,	"Don't touch."
307	Bideau, E., Paris,	The Little Quarrelers.

SCULPTURE.

NO.	ARTIST.	TITLE.
308	Dubucand, Alfred, Paris,	A Chase in the Sahara (bronze).
309	Cecioni, Paris,	Child and Cock (bronze).
310	Mène, P. J., Paris,	A Falconer on Horseback (bronze).
311	Dubucand, Alfred, Paris,	Ostrich-Hunting (bronze).
312	Moulin, H., Paris,	A Secret (bronze).

(*Annex, Gallery No. 37.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
313	Maignan, Albert, Paris,	The God of the Woods.
314	Callias, H., Paris,	A Concert (period of Charles the Bold).
315	Doux, Mrs. Lucile, Paris,	Revery.
316	Ferry, G., Paris,	Worship of Bacchus.
317	Breton, Emile, Pas-de-Calais,	The Canal of Courrières.
318	Trouillebert, ——, Paris,	A Young Girl at the Fountain.
319	Collette, A., Paris,	The Railroad Depot.
320	Debat, Ponsan E., Paris,	The First Mourners.
321	Carrier, Belleuse P., Paris,	The Baptismal Plate.
322	Dubos, Miss A., Paris,	The Barber's Daughter.
323	Bellée, G. C., Paris,	The Pillars of Scornée.
324	Gudin, Théodore, Chateau de la Barre,	Escape of a Christian Slave.
325	Camorré, Léon, Lille,	Cassandra.
326	Cassagne, A., Paris,	Through the Rocks.
327	Valandon, I., Paris,	Motherly Apprenticeship.
328	Fery, Miss L., Paris,	Roses and Fruit.
329	Muraton, A., Paris,	The Penitent.
330	Deshayes, Ch., Paris,	Cattle in Pasture.
331	Cabaillot, Lasalle, Paris,	Sculptors' Hall in the Exhibition of 1872.
332	Poncet, I. B., Paris,	Orpheus and Eurydice.
333	Cassagne, A., Paris,	Sully's Walk at Fontainebleau.
334	Durst, Aug., Puteaux,	Evening in the Kitchen.
335	Vely, A., Paris,	A Lady with a Guitar.
336	Landelle, Ch., Paris,	A Samaritan Woman.
337	Princeteau, R., Paris,	Portrait of Washington.

SCULPTURE.

NO.	ARTIST.	TITLE.
338	Cain, A., Paris,	Cock Fight (bronze).
339	Mène, P. J., Paris,	Scottish Hunting Scene (bronze).

NO.	ARTIST.	TITLE.
340	Lechene, A. J. B., Paris,	Parrots (bronze).
341	Mène, P. J., Paris,	Hunter and Dogs (bronze).
342	Megrez, A., Paris,	The Youth David (bronze).

(*Annex, Gallery No. 35.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
343	Cassinelli, H., Nice,	Decatur leaving the harbor of Tripoli, February, 1804, after having set fire to the Frigate Philadelphia.
344	Laguillermie, F., Paris,	Crossing the Run.
345	Cettner, A., Paris,	Faith.
346	Sebron, H., Paris,	Broadway, New York (Winter).
347	Adan, L. Emile, Paris,	Scene of the Inquisition.
348	Mallet, Joseph, Paris,	The Juggler's Family.
349	Zier, Edouard, Paris,	Julia.
350	Mallet, Joseph, Paris,	Boats on the Rhone.
351	Daubigny, Karl, Paris,	Shipping Oysters at Cancale.
352	Antigna, J. P. A., Paris,	Fascination.
353	Breton, Emile, Pas-de-Calais,	A Village in Winter.
354	Bar, Alexandre de, Paris,	The Death of Virginia.
355	Jacomin, A., Paris,	Bilboquet and his Companion.
356	Poncet, B., Paris,	Sully, of the Théâtre Français, in the part of "Orestes."
357	Renié, J. Emile, Paris,	Old Oaks.
358	Barras, Felix, Paris,	"My Husband is on the Sea."
359	Princeteau, R., Paris,	Horses frightened by the Railway Train.
360	Rouffio, P., Paris,	Herodias.
361	Jundt, G., Paris,	The Hair Fair in Auvergne.
362	Ségé, A., Paris,	Fountain at Nantois.
363	Durst, A., Puteaux,	Evening Landscape.
364	Jundt, G., Paris,	Coast Scene.
365	Rougeron, A., Paris,	Teasing.

SCULPTURE.

NO.	ARTIST.	TITLE.
366	Cordier, Charles, Paris,	Young Grecian Girl (bronze).
367	Gobineau, de, Stockholm,	Valkyria after the Victory (marble).
368	Cordier, Charles, Paris,	Fellah Girl (bronze).
369	Bertaux, Miss Léon, Paris,	Ideal bust (marble).
370	Caille, J. M., Paris,	Bacchante playing with a Panther (bronze).

(*Annex, Galleries Nos. 34, 36, 45.*)

WATER COLORS, ENGRAVINGS, ETC.

NO.	ARTIST.	TITLE.
371	Lalande, Maxime, Paris,	Crayon drawing.
372	Dumas, Em., Paris,	Flowers (water color).
373	Herst, A., Paris,	Pines in Provence (water color).
374	Mermet, C., Paris,	Butterflies (water color).
375	Courdouan, V., Toulon,	Valley in the Ardennes Mountains (crayon).
376	Cassagne, A., Paris,	View in a Forest (water color).
377	Courdouan, V., Toulon,	Moustier Ste. Marie (pastel).
378	Félon, Joseph, Paris,	Massacre of the Innocents (India ink).
379	Lestang, Parade de, Paris,	Autumn Flowers (water color).
380	Herst, A., Paris,	Aygalades, near Marseilles (water color).
381	Lalanne, M., Paris,	View of Bordeaux Harbor.
382	Félon, Joseph, Paris,	Engravings.
383	Félon, Joseph, Paris,	Notre Dame de Ste. Espérance.
384	Cassagne, A., Paris,	An Up-hill Road.

NO.	ARTIST.	TITLE.
385	Brunet, Debaines A., Paris,	Three etchings, after Turner.
386	Gaillard, F., Paris,	Van Eyck (etching).
387	Gaillard, F., Paris,	The Holy Heiress (etching).
388	Bellel, J. J., Paris,	The Ravine at Gravenoire (drawing).
389	Brunel, Debaines A., Paris,	An Italian Yard.
390	Gaillard, S., Paris,	Portrait of Pius IX.
391	Brunet, Debaines A., Paris,	Six etchings.
392	Bichot, Felix, Paris,	Japanese objects of art (etching).
393	Rajon, P. A., Paris,	Portrait of John Stuart Mill (etching).
394	Gaillard, F., Paris,	The Œdipus of Ingres (etching).
395	Thomas, Emile, Paris,	Marshal Prim (wood engraving).
396	Levasseur, J. G., Paris,	Miracle of the Loaves and Fishes, after Murillo.
397	Gaillard, F., Paris,	Portrait of Count de Chambord.
398	Levasseur, J. G., Paris,	Dante's Departure.
399	Rajon, P. A., Paris,	"Don't cry."
400	Lévy, Gustave, Paris,	La belle Jardinière.
401	Dubouchet, H., Auteuil,	Charon (engraving).
402	Potemont, M., Paris,	La Tonnellerie—a street in old Paris.
403	Brunet, Debaines A., Paris,	Remains of St. Charles Bridge.
404	Lalanne, M., Paris,	View of the Pont de la Concorde, Paris (engaving).
405	Flameng, Leopold, Paris,	Three etchings.
406	Thomas, E., Paris,	Mater Dolorosa (engraving).
407	Brunet, Debaines A., Paris,	Interior of the Church of St. Ouen.
408	Poncet, J. B., Paris,	Moses before the Burning Bush.
409	Rajon, P. A., Paris,	Portrait (etching).
410	Gaucherel, Léon, Paris,	Colleoni's Statue, Venice (etching).
411	Flameng, Leopold, Paris,	The Night Patrol (etching).
412	Lalanne, M., Paris,	Ten etchings
413	Poncet, J. B., Paris,	Jesus bearing the Cross (engraving).
414	Robert, Jules, Paris,	Three portraits (engravings).
415	Varin, Eugène, Paris,	Spring (engraving).
416	Hildebrand, H., Paris,	Fifteen engravings.
417	Leveux, Paris,	The Concini Family (engraving).
418	Robert, Jules, Paris,	Three portraits (engraving).
419	Potemont, M., Paris,	La Merveilleuse.
420	Bellel, J. J., Paris,	Don Quixote and Sancho Panza (crayon).
421	Poncet, J. B., Paris,	Jesus riding into Jerusalem.
422	Lamotte, A., Chaville,	The One-Year Volunteer (engraving).
423	Lalanne, M., Paris,	Twelve etchings, representing the interior of Victor Hugo's house.
424	Thomas, E., Paris,	Turtle Fight (engraving).
425	Deblois, Ch., Paris,	The Betrothed (engraving).
426	Rajon, P. A., Paris,	The Sketcher.
427	Lalanne, M., Paris,	Paris in 1867 (etching).
428	Rajon, P. A., Paris,	The First-Born (etching).
429	Rajon, P. A., Paris,	Bible Lessons.
430	Gaillard, F., Paris,	Five engravings.
431	Coindre, G. J., Paris,	Twenty-one etchings.
432	Dubouchet, H., Auteuil,	Three engravings.
433	Jaquemart, J., Paris,	Five objects of art (etchings) from the Louvre.
434	Flameng, Leopold, Paris,	Six etchings.
435	Coindre, G. J., Paris,	Eleven etchings.
436	Gaillard, C. F., Paris,	Two engravings.
437	Dubouchet, H., Auteuil,	Portrait—Balthasar Castiglione.
438	Gaillard, F., Paris,	Holy Mother and Child.
439	Brunet, Debaines A., Paris,	The Church Della Salute, Venice.
440	Rajon, P. A., Paris,	Six etchings.
441	Dubouchet, H., Auteuil,	Charity (engraving).
442	Flameng, Leopold, Paris,	Etching.
443	Gaillard, F., Paris,	Dante (engraving).
444	Adeline, Jules, Rouen,	The Great Town-gate at Rouen.
445	Rajon, P. A., Paris,	Smoking (engraving).

NO.	ARTIST.	TITLE.
446	Gaillard, F., Paris,	Statue on the Tomb of one of the Medici, after Michael Angelo (etching).
447	Gaucherel, Léon, Paris,	Three etchings.
448	Laguillermie, F., Paris,	The Surrender of Breda.
449	Rajon, P. A., Paris,	Three etchings.
450	Robert, J., Paris,	Three engravings.
451	Adeline, Jules, Rouen,	The Cathedral at Rouen.
452	Gaucherel, Léon, Paris,	Four Actors of the Théâtre Français (etching).
453	Lévy, Gustave, Paris,	Damocles (engraving).
454	Jaquemart, J., Paris,	Collection of Wilson (five etchings).
455	Laplante, Paris,	Nine engravings.
456	Robert, J., Paris,	Three engravings.
457	Jaquemart, J., Paris,	Collection of Wilson (five etchings).
458	Delauney, A., Paris,	Notre Dame, Paris (engraving).
459	Laplante, Paris,	Six engravings.
460	Dubouchet, H., Paris,	Divine Retribution (engraving).
461	Flameng, Leopold, Paris,	Five etchings.
462	Gaucherel, Léon, Paris,	Three etchings.
463	Saintin, J. E., Paris,	Breakfast (crayon).
464	Herst, A., Paris,	Trees and Rocks (water color).
465	Lalanne, M., Paris,	Park scene (crayon).
466	Courdouan, V., Toulon,	Ghizeh, Egypt (water color).
467	Herst, A., Paris,	Road at Calvoir (water color).
468	Chagot, E. A., Paris,	Coffee-House in Cairo (water color).
469	Eliot, G., Paris,	Cock-Fight (pastel).
470	Chagot, E. A., Paris,	Views in Guernsey (water color).
471	Bellel, J. J., Paris,	Solitude.
472	Chagot, E. A., Paris,	View in Cairo (water color).
473	Eliot, G., Paris,	White Hen and her Chickens (pastel).
474	Herst, A., Paris,	The Great Fall at Chartreuse (water color).
475	Lalanne, M., Paris,	View at Fribourg (crayon).
476	Bellel, J. J., Paris,	Road from Biskra to Tooggoort, Algeria (water color).

(*Annex, Galleries Nos, 34, 36, 45.*)

SCULPTURE.

NO.	ARTIST.	TITLE.
477	Bartholdi, A., Paris,	Génie funèbre (bronze).
478	Bartholdi, A., Paris,	Peace (bronze).
479	Bartholdi, A., Paris,	Genius in the Grasp of Misery (bronze).
480	Blanchard, I., Paris,	The Juggler (bronze).
481	Martin, Felix, Hermes,	Louis XI. at Péronne (bronze).
482	Cambos, J., Paris,	"He that is without sin among you, let him first cast a stone at her" (bronze).
483	Cambos, J., Paris,	La Cigale.
484	Itasse, A., Paris,	The Birth of Cupid (marble).
485	Ringel, D., Paris,	The Flute-Player (silvered bronze).
486	Moulin, H., Paris,	A Discovery at Pompeii (bronze).
487	Arson, A., Paris,	Island Birds (silver stand).
488	Itasse, A., Paris,	Sleeping Cupid (marble).
489	Bertaux, Mrs. Léon, Paris,	The Bather (bronze).
490	Chartrousse, E., Paris,	Héloïse and Abelard (bronze).
491	Barrias, L. E., Paris,	Spinning-Girl of Megara (silver bronze).
492	Doublemare, A., Paris,	Scapin, after Molière (bronze).
493	Ross, A., Paris,	Bohemian at the Spring (bronze).
494	Pautrot, I., Paris,	Falcons Fighting (bronze).
495	Leschesne, Paris,	Lapwings (bronze).
496	Cain, A., Paris,	Pheasants' Nest (bronze).
497	Roubaud, L., Paris,	Winter (bronze).
498	Moreau, Vouthière, Paris,	Young Italian Shepherd (bronze).

(*Annex, Gallery No. 43.*)

ARCHITECTURAL DESIGNS.

NO.	ARTIST.	TITLE.
499	Devrez, Dèsirè Henri Louis, Paris,	Nine architectural designs for the church of the Sacré Cœur at Montmartre.
500	L'Heureux, Paris,	Eight architectural designs for La Faculté des Sciences.
501	Devrez, D. H. L., Paris,	Architectural drawings and photographs.
502	Devrez, D. H. L., Paris,	Two architectural water colors.
503	Devrez, D. H. L., Paris,	Two views at Mont St. Michel (water colors).
504	Devrez, D. H. L., Paris,	Two church designs for the diocese of Orleans.
505	Crepinet, A., Paris,	Four architectural designs for the church of the Sacré Cœur at Montmartre.
506	Etex, Antoine, Paris,	Photographs of public monument.
507	Penel, Jules, Paris,	Engravings of sculpture in the church of Vezelay.
508	Penel, Jules, Paris,	Engraving of Holy Trinity Church.
509	Lalande, Ch. de, Paris,	Eight architectural designs for the Théâtre de la Renaissance, Paris.
510	Picq, H., Paris,	Wall drawing of the Grand Salon Louis XVI.
511	Picq, H., Paris,	Design of a monument to be erected at Lisbon in memory of the Emperor Dom Pedro IV.

GERMANY.

[Information regarding works for sale will be given at the desk in Gallery F, Memorial Hall.]

(*Memorial Hall, Central Gallery, East.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
1	Jaeckel, H., Berlin,	Court-yard in Venice.
2	Koken, G., Berlin,	Landscape.
3	Mali, C., Berlin,	Evening.
4	Haber, R. von, Weimar,	Thomas the Shepherd.
5	Pixis, Theodore, Munich,	The Car of Thespis (Strolling Players' cart) in a Dilemma.
6	Farbarius, F. W., Düsseldorf,	Departure of Dutch Herring-Fishermen for the Dogger-Bank.
7	Hallatz, E., Berlin,	Harvest Festivities in Westphalia.
8	Douzette, L., Berlin,	Ship on the Strand.
9	Bellermann, Frd., Berlin,	American Forest.
10	Hahn, J., Munich,	Moonlight Landscape (Sternberg Lake).
11	Jungheim, C., Düsseldorf,	The Gosau Lake, with the Dachstein, in the Austrian Salt Regions.
12	Jungheim, C., Düsseldorf,	Lake of the Four Cantons.
13	Molnar, J., Pesth,	Consolation.
14	Ruths, V., Hamburg,	The Glacier of Argentières, Swiss Alps.
15	Deutsch, R. von, Berlin,	Sir John Falstaff.
16	Preller, L., Weimar,	Port of Safety, Norwegian Coast.
17	Hagn, L. von, Munich,	Monastery Festivities.
18	Schauss, F., Weimar,	Saint John.
19	Seybold, G. von, Munich,	Wanderers.
20	Gebhardt, L., Munich,	Lake Sim.
21	Gebhardt, L., Munich,	Lake Constance.
22	Thiersch, L., Munich,	Easter Morn.
23	Fries, B., Munich,	Suburbs of Naples.
24	Becker, C., Berlin,	Venetian Nobleman tuning a Guitar.
25	Begas, O., Berlin,	Pauline Lucca.
26	Koerner, E., Berlin,	Mahmudi Canal near Alexandria.
27	Dietz, Th., Carlsruhe,	Flight of an American Family (Revolutionary scene).
28	Güterbock, L., Berlin,	The Daughter of Herodias with the Head of John the Baptist.
29	Willich, C., Munich,	Girl from the Sabine Mountains.
30	Souchon, W., Weimar,	Marguerite (Faust).
31	Deutsch, R. von, Berlin,	"Know whom you trust."
32	Heck, R., Stuttgart,	The Crater of Vesuvius and Bay of Naples.
33	Reichert, F., Dresden,	The Blinding of Arthur.
34	Fischer, Helene von, Bremen,	Flowers.
35	Conrad, A., Berlin,	Landscape Studies.
36	Fries, B., Munich,	The Tiber at Rome.

(*Memorial Hall, Gallery F.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
37	Kappis, A., Munich,	Fishermen surprised by a Storm.
38	Ockel, E., Berlin,	Oxen Ploughing (Mark of Brandenburg).
39	Swieszewski, A. von, Munich,	View of Pompeii, with Mount Vesuvius.

NO.	ARTIST.	TITLE.
40	Eschke, H., Berlin,	Coast of Capri.
41	Hertel, A., Berlin,	Summer Evening at the Brandenburger Gate, Berlin.
42	Brücke, G., New York,	Columbus discovering America.
43	Boyen, O. von, Munich,	Neptune riding the Waves.
44	Wider, W., Berlin,	Taking the Veil in Rome.
45	Harach, Count von, Berlin,	Capitulation of Sedan.
46	Bosch, E., Düsseldorf,	The Old Shepherd and his Granddaughter.
47	Laar, Ulrica, Berlin,	The Lesson Hour.
48	Erdmann, M., Berlin,	Morsum Cliff, on the Isle of Sylt.
49	Moras, W., Berlin,	Moonlight in the Harbor of Elsinore.
50	Laar, Ulrica, Berlin,	Caught in the Rain.
51	Wider, W., Berlin,	Girl Reading.
52	Steffeck, C., Berlin,	Mares in Pasture.
53	Plockhorst, B., Berlin,	Franz Liszt.
54	Schaus, F., Weimar,	A Dryad.
55	Gräf, G., Berlin,	Penserosa.
56	Deiker, J., Düsseldorf,	Dog with Fox.
57	Gräf, G., Berlin,	Lady with Rose.
58	Pohle, H., Düsseldorf,	Landscape.
59	Horst, L., Stuttgart,	Portrait of the German Emperor.
60	Meissner, E., Munich,	"Young Ones."
61	Poschinger, R. von, Munich,	Environs of Munich.
62	Bechtolsheim, G. von, Munich,	Landscape (Upper Bavaria).
63	Geibel, C., Weimar,	Concert in a Beer-Room.
64	Harling, E. von, Munich,	An Evening Melody.
65	Lier, A., Munich,	Autumn Landscape.
66	Preller, N., Weimar,	Autumn.
67	Jordan, R., Munich,	Happy Old Age.
68	Starkenborgk, J. N. T. von, Düsseldorf,	Tobacco-Gatherers.
69	Ortlieb, F., Munich,	The Last Rehearsal previous to going to the Singers' Festival.
70	Heger, H., Munich,	Audience-Hall in the Doge's Palace, Venice.
71	Ockel, E., Berlin,	The Critical Moment.
72	Hallatz, E., Berlin,	Snow-Storm in the Pustha (Russia).
73	Mücke, C., Düsseldorf,	Lullaby.
74	Ewers, H., Düsseldorf,	Duet in a Village Blacksmith's Shop.
75	Seibels, C., Düsseldorf,	Cattle.
76	Meyer, F., Munich,	Carousal after the Fair.
77	Hildebrand, E., Carlsruhe,	A Sentinel.
78	Steffeck, C., Berlin,	Steeple Chase.
79	Xylander, W., Schleissheim, near Munich,	Mouth of the Thames.
80	Seibels, C., Düsseldorf,	Cattle.
81	Hiddemann, F., Düsseldorf,	Nothing but Practice makes Perfect.
82	Mücke, C., Düsseldorf,	The Sailor's Home.
83	Hirschfelder, S., Munich,	Unexpected Issue.
84	Frey, W., Munich,	Cattle.
85	Spangenberg, G., Berlin,	The Flirtation.
86	Becker, Q., Berlin,	After the Christening.
87	Hiddemann, F., Düsseldorf,	In the Park.
88	Dielitz, K., Berlin,	A Smoker (Upper Bavaria).
89	Steffeck, C., Berlin,	The Crown Prince of Germany, on the battle-fields of Worth and Weissenburg.
90	Kretzschmer, H., Berlin,	Vanity.
91	Marc, W., Munich,	Disagreement.
92	Frey, W., Munich,	Cattle.
93	Meyerheim, P., Berlin,	The King of the Forest.
94	Schlesinger, F., Munich,	Convalescent.
95	Kretzschmer, H., Berlin,	Buying the Cradle.
96	Boser, F., Düsseldorf,	The Rural Sunday Toilet.
97	Risse, R., Düsseldorf,	The God and the Bayadere.

NO.	ARTIST.	TITLE.
98	Reichert, F., Dresden,	The First Proof-Sheet.
99	Meyer von Bremen, Berlin,	The Gossips.
100	Kornbeck, J., Stuttgart,	Sheep in the Pasture.
101	Neustätter, L., Munich,	The Strong Inclination.
102	Neustätter, L., Munich,	The Mouse.
103	Eggert, S., Munich,	Visit to the Village Artist.
104	Wider, W., Berlin,	Child and Doll.
105	Kornbeck, J., Stuttgart,	Good Friends.
106	Kornbeck, J., Stuttgart,	Sheep on the Mountain.
107	Soychon, W., Weimar,	Imogene.
108	Boser, F., Düsseldorf,	The Orphans.
109	Behmer, H., Weimar,	Interior of a House in Bethlehem.
110	Lutteroth, A., Berlin,	Lake Chiem, Italy.
111	Lutteroth, A., Berlin,	Near Naples.
112	Achenbach, A., Düsseldorf,	Storm at Vlissingen (Holland).
113	Boser, F., Düsseldorf,	Early Affliction.
114	Eckenbrecher, Th. v., Munich,	Picnic in Asia Minor.
115	Becker, Q., Berlin,	Before the Christening.
116	Hacker, H., Munich,	König Lake, from the Kessel-Alp.
117	Hacker, H., Munich,	Lake of the Four Cantons at Brunnen.
118	Grund, J., Baden-Baden,	Diana and Endymion.
119	Lasch, C., Düsseldorf,	The Orphans.
120	Richter, G., Berlin,	Hon. G. Bancroft.
121	Amberg, W., Berlin,	Ophelia.
122	Sturm, F., Berlin,	A Storm.
123	Sturm, F., Berlin,	Pilot-Boat.
124	Faber du Faur, Otto von, Munich,	Departure of Frederick V. from Prague after the Battle of the White Hills.
125	Schrader, Jul., Berlin,	Queen Elizabeth signing the Death-Warrant of Mary Queen of Scots.
126	Schwarz, A.,	Broken Flowers.
127	Molnar, J., Pesth,	Misty Veil.
128	Starkenborgk, J. N. T. von, Düsseldorf,	Harvest in Holland.
129	Dietrich, A., Dresden,	Faust and Marguerite (Prison Scene).
130	Wider, W., Berlin,	Return from Skating.
131	Rückart, F., Hamburg,	After the Chase.
132	Grund, J., Baden-Baden,	Queen Esther.
133	Heck, R., Stuttgart,	Natural Arch at Capri.
134	Braun, L., Munich,	Capitulation of Sedan.
135	Harach, Count von, Berlin,	Luther Intercepted.
136	Plockhorst, Prof., Berlin,	Christ appearing to Mary Magdalene.
137	Folingsby, G. F., Munich,	Lady Jane Grey's Triumph over Bishop Gardiner.
138	Wilberg, C., Berlin,	Grotto of Egeria, near Rome.
139	Lutteroth, A., Berlin,	Bismarck on his Estates in Lauenburg.
140	Behmer, H., Weimar,	Girl with Wild Roses.
143	Weber, P., Munich,	View near Munich.
144	Mayer, T., Munich,	Statue of Cincinnatus.
145	Hearth, S. D., Munich,	Evening in the Woods.

(*Memorial Hall, Gallery F.*)

SCULPTURE.

NO.	ARTIST.	TITLE.
146	Schulz, M., Berlin,	Love conquers Strength.
147	Reusch, F., Berlin,	Group for fountain (bronze).

(*Memorial Hall, Gallery J.*)

SCULPTURE.

NO.	ARTIST.	TITLE.
148	Herter, E., Berlin,	Orestes (bronze).
149	Herter, E., Berlin,	Antigone (bronze).

NO.	ARTIST.	TITLE.
150	Silbernagel, C.,	Statuette of Prince Bismarck (bronze).
151	Brunow, L., Berlin,	Statue of Count Moltke (bronze).
152	Andressen, E., Dresden,	Boy and Frog (group).
153	Brunow, L., Berlin,	Marble bust of Count Moltke.
154	Schweinitz, R., Berlin,	Marble bust of the Crown Prince of Germany.
155	Ezekiel, M., Rome,	Relief in plaster.
155*a*	Toberenz, R., Berlin,	Ideal bust (marble).

GALVANOPLASTY.

NO.	ARTIST.	TITLE.
156	Bavarian Museum of Art, Nuremberg,	Galvanoplastic representations of ancient art, especially of gold and silver.

WATER COLORS.

NO.	ARTIST.	TITLE.
157	Meyerheim, P., Berlin,	Rhenish Landscape.
158	Meyerheim, P., Berlin,	French Village.
159	Meyerheim, P., Berlin,	Glass-Works in Bohemia.
160	Meyerheim, P., Berlin,	Evening in the Park.
161	Meyerheim, P., Berlin,	At the Brook.
162	Meyerheim, P., Berlin,	Twilight.
163	Spangenberg, L., Berlin,	Glacier in Engadin.
164	Spangenberg, L., Berlin,	Capuchin Cloister near Salzburg.
165	Spangenberg, L., Berlin,	Mount Pilatus, on the Lake of the Four Cantons.
166	Lage, Julia von der, Berlin,	Flowers.
167	Skarbina, F.,	Alpine Hospitality.
168	Friedrich, C. F., Dresden,	Thirteen water colors.

PORCELAIN PAINTINGS.

NO.	ARTIST.	TITLE.
169	Ens & Greiner, Lauscha,	Porcelain paintings.
170	Deininger, C. H., Munich,	Portrait of a lady.

ENGRAVINGS.

NO.	ARTIST.	TITLE.
171	Dinger, F., Coblentz,	Cinderella.
172	Bartehlmess, N., Düsseldorf,	In a House of Mourning—copper engraving after Vautier.
173	Krausse, A., Leipsic,	Engravings.
174	Duncker, A., Berlin,	Engravings.
175	Gräf, C., Dresden,	Thirty-six engravings.
176	Boehm, Hannah, Berlin,	Silhouettes.

PHOTOGRAPHS.

NO.	ARTIST.	TITLE.
177	Berlin Photograph Co., Stroefer & Kirchner, New York, Agents,	Madonna San Sisto, after Raphael; Angels, after Raphael; St. Sixtus, after Raphael; St. Barbara, after Raphael; Morning Prayer, after Rosenthal; Elaine, after Rosenthal; Marie Stuart, after Neal; The Broken Pitcher, after Greuze.

CHROMO-LITHOGRAPHS.

NO.	ARTIST.	TITLE.
178	Zettler, F. X., Munich,	Four frames containing chromo-lithographs.
179	Duncker, A., Berlin,	Chromo-lithographs.

STAINED GLASS.

NO.	ARTIST.	TITLE.
180	Zettler, F. X., Munich,	Stained glass window, Christian church.
181	Zettler, F. X., Munich,	Stained glass window, Mohammedan temple.
182	Zettler, F. X., Munich,	Stained glass window, Persian temple

MEDALS.

NO.	ARTIST.	TITLE.
183	Jungfer, A., Berlin,	Collection of coins and medals.

MINERALOGY.

NO.	ARTIST.	TITLE.
184	Jungfer, A., Berlin,	Pieces of amber, inclosing antediluvian insects, —ants, flies, gnats, sugar-mites, moths, scarabæi, spiders, etc.

(*Memorial Hall, Gallery B.*)

STATUARY.

NO.	ARTIST.	TITLE.
185	Manger, H., Berlin,	Colossal statue of Prince Bismarck (bronze).

AUSTRIA.

[Works of Art marked with an asterisk (*) are for sale. Information may be obtained at the Austrian office, in Gallery G, Memorial Hall.]

(*Memorial Hall, Galleries G and Z.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
1	Makart, Hans, Vienna,	*Venice paying Homage to Caterina Cornaro.
2	Engl, Hugh, Lienz,	*Still Life—game.
3	Russ, Robert, Vienna,	*Mill near Mals, South Tyrol.
4	Parmentier, Louisa von, Vienna,	*Landscape—suburbs of Munich.
5	Brunner, Joseph, Vienna,	*Landscape.
6	Schilcher, Fred., Vienna,	*Austrian Harvesters.
7	Rumpler, F., Vienna,	*The Friends.
8	Amerling, Fred., Vienna,	*Ideal female.
9	Schödl, Max, Vienna,	*Still Life.
10	Schödl, Max, Vienna,	*Still Life.
11	Friedländer, Fred., Vienna,	*Tasting the Wine.
12	Canon, John, Vienna,	*Girl with Fruit.
13	Hlavacek, Anthony, Vienna,	*View in the Palatinate of the Rhine.
14	Ruben, Francis Leo, Vienna,	*Roman Woman selling Pomegranates.
15	Thoren, Otto von, Paris,	*Norman Pasture.
16	George-Mayer, Augustus, Vienna,	*Bathsheba.
17	Parmentier, Louisa von, Vienna,	*Interior of the Castle Ruin "Taufers," in the Tyrol.
18	Minigerode, Lewis, Vienna,	*Sleeping Nymph.
19	Hoegel, Minna, Vienna,	*Still Life—game.
20	Lichtenfels, Edward, Chevalier, Vienna,	*Castle Court.
21	Graf, Lewis, Vienna,	*Nursery Maid.
22	Graf, Lewis, Vienna,	*The Love-Letter.
23	Schaeffer, Augustus, Vienna,	*"At the Sea" (desolate beach).
24	Riedel, Charles, Vienna,	*An After-Dinner Nap.
25	Bühlmayer, Conrade, Vienna,	*Landscape, with animals.
26	George-Mayer, Augustus, Vienna,	*Cupid's Warning.
27	Kratzer, Charles von, Vienna,	*Return from Hunting—Scene in Carinthia.
28	George-Mayer, Augustus, Vienna,	*Art going a-begging.
29	Ribarz, Ralph, Vienna,	*Cow and Sheep.
30	Gross, Augustus, Vienna,	*Villa d'Este, at Tivoli, near Rome.
31	Munsch, Leopold, Vienna,	*Alp Gschlöss, looking towards the Gross-Venediger.
32	Berres, Joseph von, Vienna,	*Caravan in the Caucasus.
33	Schilcher, Fred., Vienna,	*Bas-relief.
34	Hlavacek, Anthony, Vienna,	*Moonrise.
35	Ribarz, Ralph, Vienna,	*View in Venice.
36	Graf, Lewis, Vienna,	*An Interior.
37	Berres, Joseph von, Vienna,	*Husking in Hungary.
38	Lafite, Erneste, Vienna,	*Peasant Woman of Upper Austria.
39	Halauska, Lewis, Vienna,	*Village Road.
40	Lafite, Erneste, Vienna,	*Girl of Upper Austria.
41	Berres, Joseph von, Vienna,	*Children's Tenderness.
42	Russ, Francis, Vienna,	*Girl and Cat.
43	Stocker, Francis, Vienna,	*Overwhelmed with Grief.
44	Schilcher, Fred., Vienna,	*Bas-relief.
45	Otto, Henry, Vienna,	*View near Naples.

NO.	ARTIST.	TITLE.
46	Müller, Charles Leopold, Vienna,	*Monte Pelegrino, near Palermo.
47	Gaul, Gustavus, Vienna,	*Satanella.
48	Blaas, Charles, Vienna,	*Centaur carrying off a Nymph.
49	Oeconomo, A., Vienna,	Portrait of the artist.
50	Ribarz, Ralph, Vienna,	*Fish-Market at Chioggia.
51	Penther, Daniel, Vienna,	*Portrait (Darwin).
52	Pausinger, Francis von, Munich,	*A Chamois killed by a Fall.
53	Oeconomo, A., Vienna,	*A Study (head).
54	George-Mayer, Augustus, Vienna,	*A Study (female head).
55	Hoffmann, Joseph, Vienna,	*Ideal landscape.
56	Fux, Joseph, Vienna,	*"Sans-Souci" (strolling minstrel).
57	Penther, Daniel, Vienna,	*Portrait (Schopenhauer).
58	Lichtenfels, Edward, Chevalier, Vienna,	*Village Road in Upper Austria.
59	Schaeffer, Augustus, Vienna,	*Winter Landscape in Styria.
60	Schweninger, Rosa, Vienna,	*A Neapolitan.
61	Schaeffer, Augustus, Vienna,	*November Evening in the Prater, Vienna.
62	Felix, Eugene, Vienna,	*Pan and Bacchantes.
63	Russ, Francis, Vienna,	*Life in a Castle (Middle Ages).
64	Lichtenfels, Edward, Chevalier, Vienna,	*Copper-Mines of Agordo.
65	Nemes-Ransonnet, Eliza, Countess, Vienna,	*Interior of St. Stephen's, in Vienna.
66	Geyling, Ralph, Vienna,	*Garden Scene (Jesuit College).
67	Parmentier, Mary von, Vienna,	*Village Scenery in the Tyrol.
68	Obermüllner, Adolphus, Vienna,	*"Welcome Sounds," a hunting episode of the Austro-Hungarian North Polar Sledge Expedition, 1872–1874 (after Julius Payer).
69	Probst, Charles, Vienna,	*A Study (female figure).
70	Obermüllner, Adolphus, Vienna,	*The Lake of Constance seen from the Gebharts Mountains, Tyrol, at the beginning of a storm called "Föhnwind."
71	Gaul, Gustavus, Vienna,	*A Study (female head).
72	Pausinger, Francis von, Munich,	*Distrustful.
73	Gaul, Gustavus, Vienna,	*A Shepherdess.
74	Schönreither, George, Vienna,	*View of the High Tauern, Austrian Alps.
75	Mayer, Louis, Vienna,	*The Judgment of Paris.
76	Seelos, Godfrey, Vienna,	*The Vogelweidehof, near Botzen, South Tyrol, birthplace of Walter von der Vogelweide, the greatest lyric poet of the Germans in the Middle Ages.
77	Amerling, Fred., Vienna,	*Counsellor of the Middle Ages.
78	Gevling, Ralph, Vienna,	*Roman Pomegranate-Seller.
79	Grabowski, Andrew, Lemberg,	Portrait.
80	Obermüllner, Adolphus, Vienna,	*View of the Grum Alpe, with the Paluglacier, Upper Engadin, in Switzerland (morning).
81	Ruben, Francis Leo, Vienna,	*Venetian Society.
82	Berres, Joseph von, Vienna,	*Exhibiting a Foal (England.)
83	Ribarz, Ralph, Vienna,	*Ox-Team.
84	Fritsch, Melchior, Vienna,	*The Leopoldstein Lake in Styria.
85	Schrödl, Anthony, Vienna,	*An Interior at Hallstädt, in Upper Austria.
86	Graf, Lewis, Vienna,	*A Study (boy).
87	Müller, Charles Leopold, Vienna,	*Scene in the English Garden, Palermo, Sicily.
88	Nemes-Ransonnet, Eliza, Countess, Vienna,	*A Study (female head).
89	Hansch, Anthony, Salzburg,	*The Weissbachhorn, in the Pinzgau, Austrian Alps.
90	Aigner, J. M., Vienna,	Portrait of the artist.
91	Schrödl, Anthony, Vienna,	*Animals and Girl—scene in the valley of Ferleithen, near Gastein.
92	Blaas, Charles, Vienna,	*Ulysses and the Sirens.
93	Blume, Edmund, Vienna,	*The Grandmother's Tales.
94	Swoboda, Edward, Vienna,	*The Mermaid's Home.
95	Reichert, Charles, Vienna,	*A Bull-dog.
96	Reichert, Charles, Vienna,	*A Bull-dog.

NO.	ARTIST.	TITLE.
97	Hansch, Anthony, Salzburg,	*The Great Oetz Valley, Ferner (glacier), and Gurgl Lake.
98	Schams, Francis, Vienna,	*The Newly-Elected Mayor.
99	Berres, Joseph von, Vienna,	*Trader in Cattle of the Campagna di Roma.
100	Graf, Lewis, Vienna,	*"He loveth me."
101	Haanen, Remi van, Vienna,	*View of a Dutch town by Moonlight.
102	Graf, Lewis, Vienna,	*Rural Sports.
103	Parmentier, Louisa von, Vienna,	*Landscape.
104	Kuntz, G. A., Vienna,	*The Nun's Revery.
105	Blaas, Charles, Vienna,	*A Summer's Day in the Woods.
106	Parmentier, Mary von, Vienna,	*A Mill in the Tyrol.
107	Friedländer, Camilla, Vienna,	*Still Life (ham, etc.).
108	Parmentier, Mary von, Vienna,	*Village of Gaaden, near Vienna.
109	Schönn, Aloysius, Vienna,	*Siesta of an Oriental Woman.
110	Stainer-Knittl, Anne, Innsbruck,	Alpine Flowers.
111	Friedländer, Fred., Vienna,	*A Bashful Declaration of Love.
112	Huber, Ralph, Vienna,	*In the Pasture.
113	Friedländer, Camilla, Vienna,	*Antiquities and Books.
114	Rumpler, Francis, Vienna,	*Smiling Girl.
115	Friedländer, Camilla, Vienna,	*Still Life (fancy ware).
116	Russ, Robertus, Vienna,	*View in the Prater, Vienna, previous to the Exhibition of 1873.
117	Canon, John, Vienna,	*The Page.
118	Fritsch, Melchior, Vienna,	*Mountain Landscape (autumn).
119	Nemes-Ransonnet, Eliza, Countess, Vienna,	Portrait of the artist.
120	Hlavacek, Anthony, Vienna,	*Under the Maple-Tree.
121	Wertheimer, Gustavus, Vienna,	*The Moor and his Horse.

(*Memorial Hall, Galleries G and Z.*)

STATUARY.

NO.	ARTIST.	TITLE.
122	Zumbusch, Caspar, Vienna,	His Majesty the Emperor of Austria (marble bust).
123	Gliber, James, Vienna,	*A Study (marble head).
124	Pilz, Vincenz, Vienna,	A Portrait (plaster bust).
125	Costenoble, Charles, Vienna,	*Charles V. (marble bust).
126	Costenoble, Charles, Vienna,	*Maximilian I. (marble bust).
127	Wagner, Anthony, Vienna,	*Michael Angelo (bronze statue).
128	Gliber, James, Vienna,	*Madonna (wood).

WATER COLORS.

NO.	ARTIST.	TITLE.
129	Tepa, Francis, Lemberg,	*The Polish Cavalry Captain Jastrzebiec.
130	Tepa, Francis, Lemberg,	*A Portrait.
131	Alt, Francis, Vienna,	*The Landing at Lucerne.
132	Alt, Francis, Vienna,	*The Ancient Fish-Market in Rome.
133	Alt, Francis, Vienna,	*Interior of the Cathedral, Milan.
134	Alt, Francis, Vienna,	*The Cursalon in the Stadt Park, Vienna.
135	Stöckler, Emanuel, Vienna,	*Girl at the Window.
136	Stöckler, Emanuel, Vienna,	*Campanile of San Marco, Venice.
137	Stöckler, Emanuel, Vienna,	*Fishmonger in Venice.
138	Stöckler, Emanuel, Vienna,	*The Grand Canal, Venice.
139	Hoffmann, Joseph, Vienna,	*View in the Herrengarten, Darmstadt.
140	Hoffmann, Joseph, Vienna,	*"The Beautiful Chestnut-Tree," Theaterhof, Darmstadt.
141	Hoffmann, Joseph, Vienna,	*Oberwesel on the Rhine.
142	Alt, Ralph, Vienna,	*Cathedral in Orvieto.
143	Alt, Ralph, Vienna,	*Arch of Constantine, Rome.
144	Pitner, Francis, Vienna.	*Tambourine-Girl, Molo di Gaëta, near Naples.
145	Pitner, Francis, Vienna,	*Punished Fickleness.
146	Tepa, Francis, Lemberg,	*A Peasant of Zolkiew, Galicia.
147	Tepa, Francis, Lemberg,	*Peasant Woman of Truskaviec, Galicia.
148	Tepa, Francis, Lemberg,	*The Polish General Josef Zaluski.

NO.	ARTIST.	TITLE.
149	Tepa, Francis, Lemberg,	*A Study (boy).
150	Lauer, Joseph, Vienna,	*Brier Bush (oil painting).
151	Pönninger, Miss C., Vienna,	*Still Life (a duck, in water colors).
152	Pönninger, Miss C., Vienna,	*Flowers (water colors).
153	Pönninger, Miss C., Vienna,	*Flowers (water colors).
154	Schuster, Miss Adele, Vienna,	*Alpine Flowers (oil painting).
155	Schuster, Miss Adele, Vienna,	*The Four Seasons (oil painting).

ETCHINGS.

NO.	ARTIST.	TITLE.
156	Unger, W., Vienna,	*Marine view (after Van der Capellen).
157	Unger, W., Vienna,	*Portrait (after Velazquez).
158	Unger, W., Vienna,	*Portrait (after Palma Vecchio).
159	Unger, W., Vienna,	*Landscape (after Hobbema).
160	Unger, W., Vienna,	*Jacob's Blessing (after Govaers Flink).
161	Unger, W., Vienna,	*Catharine Cornaro (after Hans Makart).
162	Unger, W., Vienna,	*Katharina Formann (after Rubens).

STATUARY.

NO.	ARTIST.	TITLE.
163	Pezzicar, F., Trieste,	*The Abolition of Slavery in the United States, 1863 (statue in bronze).

PHOTOGRAPH.

NO.	ARTIST.	TITLE.
164		*Catharine Cornaro.

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
165	Angeli, Henry von, Vienna,	Portrait.
166	Angeli, Henry von, Vienna,	Portrait.

MEDALS.

(*Memorial Hall, Gallery O.*)

NO.	ARTIST.	TITLE.
167	Scharff, Anthony, Vienna,	*Collection of medals.

BELGIUM.

[Information regarding the sale of Works of Art can be obtained at the office of the Belgian Commission, Main Building.]

(Annex, Gallery No. 33.)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
1	Portaels, Jean, Brussels,	Morning.
2	De Biseau, Aristide, Brussels,	The River Semoy (Ardennes).
3	Gerboux, Auguste Charles, Mons,	The Mill of Lens, near Mons.
4	Roffiaen, François, Brussels,	Morning, Lake Koenigsee (Bavaria).
5	Slingeneyer, Ernest, Brussels,	A Christian Martyr in the Reign of Diocletian.
6	De Schampheleer, Edmond, Brussels,	Nymwegen, on the River Wahal, Netherlands.
7	Musin, François, Brussels,	Harbor of Rotterdam in Rainy Weather.
8	Huygens, François Joseph, Brussels,	Bouquet of Thorn-Blossoms.
9	De Heuvel, Theodore, Brussels,	The Prayer.
10	Soubre, Charles, Liège,	Insurrection of St. Martin (history of Liège).
11	Coosemans, Joseph Theodore, Brussels,	Sunset.
12	Barnaba, Louis, Brussels,	Coast of France.
13	Mols, Robert, Antwerp,	The Dome of "Les Invalides," Paris.
14	Dauriac, Henry, Arlon,	Madonna.
15	De Keyser, Nicaise, Antwerp,	Rebecca.
16	Verhas, Jean, Brussels,	Sea-Shore at Blankenberghe.
17	De Bylandt, Count Alfred, Brussels,	Mountain View in Switzerland.
18	Langlet, Mrs. Caroline, Brussels,	Lighting Candles to the Holy Mother—Italian woman.
19	Cardon, Charles Léon, Brussels,	The Smoking-Room.
20	Robbe, Henry, Brussels,	The Destroyer.
21	De Meester, Raymond, Brussels,	Landscape.
22	Wagner, Jules, Antwerp,	Griseldis.
23	Walckiers, Gustave, Brussels,	The Town-House in Alost.
24	Verhoeven-Ball, Antwerp,	Preparing the Christmas Plum-Pudding.
25	Kuhnen, Victor, Brussels,	Steen Street in Antwerp.
26	Vinck, Franz, Antwerp,	The Pink Domino.
27	De Pratere, Edmond, Brussels,	Stop!
28	Slingeneyer, Ernest, Brussels,	The Night of St. Bartholomew.
29	Tschaggeny, Charles, Brussels,	Flemish Stallion.
30	Van Keirsbilck, Jules, Brussels,	Crime and Superstition.
31	Steens, Edmond, Brussels,	Poultry.
32	Unterberger, F. R., Brussels,	Posilippo, near Naples.
33	Roosenboom, Albert, Brussels,	Motherly Love.
34	Robbe, Henry, Brussels,	Flowers and Fruit.
35	Cogen, Felix, Brussels,	Fisherwoman of the Zuyder-Zee, Netherlands.
36	Keelhoff, François, Brussels,	Autumn.
37	Walraven, Jean, Brussels,	The Right of Way.
38	De St. Cyr, Georges, Brussels,	Sentinel at the Entrance of the Harem.
39	Vinck, Franz, Antwerp,	The Confederates in the Presence of Marguerite of Parma.
40	Stroobant, François, Brussels,	The House of the Society of the Archers in Bruges.
41	Dandoy, Armand, Namur,	The Banks of the River Meuse.

NO.	ARTIST.	TITLE.
42	Stroobant, François, Brussels,	Dordrecht—View from the River Meuse.
43	Tschaggeny, Charles, Brussels,	Fire in the Stable.

STATUARY.

NO.	ARTIST.	TITLE.
42*a*	Vinçotte, Thomas, Brussels,	The Female Captive (bronze statue).

(*Annex, Gallery No. 39.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
44	Van den Broeck, Miss Clemence, Brussels,	Flemish House in A.D. 1600.
45	Berlin, Jean Joseph, Brussels,	A Confidential Talk.
46	Madiol, Adrien Jean, Brussels,	"Don't let him fly."
47	De Beughem, Count Charles, Brussels,	Landscape near Wiesbaden, Germany.
48	De Schampheleer, Edmond, Brussels,	River Moerdyk, Netherlands.
49	Lagye, Victor, Antwerp,	The Sculptor—close of the fifteenth century.
50	Raoux, Albert, Brussels,	Fruit.
51	Sodar, Franz, Dinant,	Reminiscence of Rome.
52	Bellemans, Joseph, Antwerp,	Ariosto at the Fountain.
53	Van Luppen, G. Joseph, Antwerp,	After the Rain—View from Anseremme, near Dinant.
54	Col, David, Antwerp,	In the Wine-Cellar.
55	Dekeghel, Jules, Ghent,	Pouting.
56	Goemans, Gustave, Melle, near Ghent,	Landscape in Flanders.
57	Asselbergs, Alphonse, Brussels,	Landscape at Mount-Eagle.
58	Weber, Theodore Alexander, Brussels,	Using the Life-Boat, at Tynemouth, England.
59	Stallaert, Joseph, Brussels,	Palm Sunday (Albano costume, Italy).
60	Van Lil, Joseph, Antwerp,	The Last at Church.
61	Berlin, Jean Joseph, Brussels,	The Family Portrait.
62	Van Hove, Victor, Heyst-sur-Mer,	Child and Rabbit.
63	Starck, Jules, Brussels,	Louis XIV. visits young Malandry, the Dead Defender of Montmédy.
64	De Keyser, Albert, Antwerp,	Harbor of Antwerp.
65	Cleynhens, Theodore, Antwerp,	An Archer of the Sixteenth Century.
66	Pauwels, Ferdinand, Antwerp,	Fire in the Village of Ruhla, Germany.
67	Nisen, Felix, Liége,	Fancy head.
68	Carlier, Modeste, Brussels,	Peasant Girl in the Woods.
69	De Vigne, Miss Malvina, Ghent,	Azaleas.
70	De Burbure, L., Brussels,	Harbor of Boulogne, France.
71	Beernaert, Miss Euphrosyne, Brussels,	Banks of the River Scheldt, near Antwerp.
72	Robert, Alexander, Brussels,	Three Friends.
73	De Schampheleer, Edmond, Brussels,	Domburg Banks, Island of Walcheren, Netherlands.
74	De Loose, Basile, Brussels,	Fair in a Flemish Village.
75	Van Luppen, G. Joseph, Antwerp,	Before the Thunder Storm—View in Flanders.
76	Mellery, Xavier, Brussels,	Young Girl from the Environs of Rome.
77	Gérard, Theodore, Brussels,	The Peddler.
78	Beernaert, Miss Euphrosyne, Brussels,	View of Domburg, Island of Walcheren, Netherlands.
79	De Vigne, Miss Emma, Ghent,	Lilacs.
80	Génisson, Georges, Namur,	Old Hermitage of St. Hubert, Namur.
81	De Loose, Basile, Brussels,	The School.
82	Asselbergs, Alphonse, Brussels,	Harvest on the River Meuse.
83	Carabain, Jacques François, Brussels,	Church of St. Fermo, Verona, Italy.
84	De Biseau, Aristide, Brussels,	Reminiscence of the Ardennes Mountains.
85	Smits, Eugène, Brussels,	War.
86	Rosseels, Jacques, Antwerp,	Mill on the River Scheldt.

NO.	ARTIST.	TITLE.
87	Meerts, Franz, Brussels,	Saturday in the Monastery.
88	Van Seben, Henry, Brussels,	The Dead Bird—winter landscape.
89	Portaels, Jean, Brussels,	Deception.
90	Huygens, François Joseph, Brussels,	Hazels and Roses.
91	Meerts, Franz, Brussels,	Announcement of Marriage.
92	De Baerdemaeker, Felix, Ghent,	View from the Highway Anthée, Harvest Time.
93	Vinck, Franz, Antwerp,	A Flemish Burgher's Wife in the Sixteenth Century
94	Bouvier, A., Brussels,	The Coast of Bretagne, France.
95	Lampe, Louis, Brussels,	The Little Sleeper.
96	Carabain, Jacques François, Brussels,	St. Peter and St. Paul's Church, Antwerp.
97	Goemans, Gustave, Melle, near Ghent,	Banks of the River Meuse, near Yvoir.
98	Stallaert, Joseph, Brussels,	The Fan.
99	De Beughem, Count Charles, Brussels,	Kreuznach, on the Rhine, Prussia.
100	Guffens, Godefroid, Brussels,	The Crucifixion.
101	Walckiers, Gustave, Brussels,	The Fish-Market in Brussels.
102	Unterberger, F. R., Brussels,	The Rhine, between Bonn and Coblentz.
103	Smits, Eugène, Brussels,	Rosetta.
104	De Franchimont, Mrs. Emilie, Brussels,	Fruit.
105	Wagner, Jules, Antwerp,	Girl tending Geese.
106	De Keyser, Nicaise, Antwerp,	Dante and the Young Girls of Florence.
107	Van Luppen, G. Joseph, Antwerp,	Morning—View near Dinant.
108	Houzé, Florentin, Brussels,	The Last Moments of the Daughter of Grétry.
109	Keymeulen, Emile, Brussels,	Landscape in Provence, France.
110	Gérard, Theodore, Brussels,	An Inn in Würtemberg, Germany.
111	Wagner, Jules, Antwerp,	Dangerous Medium.
112	Langlet, Mrs. Caroline, Brussels,	In Prison as a Vagabond.

(*Annex, Gallery No. 39.*)

STATUARY.

NO.	ARTIST.	TITLE.
112*a*	Laumans, Jean André, Brussels,	The Exercise (bronze statue).

(*Annex, Gallery No. 41.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
113	Platteel, Jean David, Brussels,	The Broken Sledge—Zealand, Netherlands.
114	Carabain, Jacques François, Brussels,	Sotto Riva Street in Verona, Italy.
115	De Simpel, Bruno Alphonse, Brussels,	Location in France (Pas-de-Calais) where the Channel Tunnel is to be commenced.
116	Maswiens, Joseph, Louvain,	Church Interior in the Abbey of Everbode, Brabant.
117	Robert, Alexander, Brussels,	Discontent in the Harem.
118	Fourmois, Theodore, Brussels (deceased),	The Mill in the Campine.
119	Sodar, Franz, Dinant,	Destruction of the Home by Fire.
120	Barnaba, Louis, Brussels,	Boats ashore on the Coast of France.
121	Dillens, Adolphe, Brussels,	Fair in Zuid-Beveland, Zealand—"The Youths' Day."
122	Jacobs, Jacob, Antwerp,	Falls in Norway.
123	Guffens, Godefroid, Brussels,	Episode of the destruction of Pompeii.
124	Gérard, Theodore, Brussels,	The Discarded Lover.
125	Van Keirsbilck, Jules, Brussels,	Desdemona.
126	Plumot, André, Antwerp,	On the Road to Market.
127	Bouvier, A., Brussels,	Coast of Flanders (Sunrise).
128	Houzé, Florentin, Brussels,	An Italian Shepherd Family.
129	De Meester, Raymond, Brussels,	View at Oneglia, near the Cornice, Italy.

NO.	ARTIST.	TITLE.
130	Carabain, Jacques François, Brussels,	The Town-Gate at Wertheim, Germany.
131	Madiol, Adrien Jean, Brussels,	Hesitation.
132	Sebes, Pieter Willem, Brussels,	An Interior at Hindeloopen, Province of Friesland, Netherlands.
133	Barnaba, Louis, Brussels,	Sunset on the English Coast.
134	Bossuet, François Antoine, Brussels,	Rome—View from the River Tiber, the Fort and the Bridge of St. Angelo, and St. Peter's Cathedral.
135	Stallaert, Joseph, Brussels,	The Cellar of Diomede—scene at the destruction of Pompeii.
136	Mols, Robert, Antwerp,	View at Saxenhausen, near Frankfort-on-the-Main, Germany.
137	Keymeulen, Emile, Brussels,	After the Hurricane.
138	Van Keirsbilck, Jules, Brussels,	The Duet.
139	Gérard, Theodore, Brussels,	Soup.
140	Madiol, Adrien Jean, Brussels,	Pancakes.
141	Meyers, Isidore, Antwerp,	View on the River Scheldt, in Winter.
142	Smits, Eugène, Brussels,	Studio Corner.
143	Gérard, Joseph, Brussels,	A Roman Pottery-Seller.
144	Berlin, Jean Joseph, Brussels,	In the Country.
145	Verhoeven-Ball, Antwerp,	Fruit and Game.
146	Gabriel, Paul Joseph Constantin, Brussels,	Landscape—Morning View in Netherlands.
147	Dekeghel, Jules, Ghent,	The Little Rogue.
148	Smits, Eugène, Brussels,	Italian Girl.
149	Gérard, Joseph, Brussels,	A Roman Triclinium.
150	Plumot, André, Antwerp,	The Shepherd.
151	Gérard, Theodore, Brussels,	The Birthday.
152	Wittkamp, Jean Bernard, Antwerp,	Byron's Parisina.
153	Gérard, Theodore, Brussels,	An Unwelcome Guest.
154	Van den Broeck, Miss Clemence, Brussels,	The Visit.
155	Musin, François, Brussels,	Sea-Shore at Scheveningen.
156	Wulffaert, Hippolyte, Brussels,	Waterwomen of Venice.
157	De Burbure, Louis, Brussels,	London Bridge, St. Catharine Docks, London.
158	De Groux, Charles, Brussels (deceased),	The Saviour.
159	Verheyden, François, Brussels,	The Removal.
160	De Baerdemaeker, Felix, Ghent,	The Village of Maurenne, Ardennes Mountains.
161	Nisen, Felix, Liége,	In the Fields, Ardennes.
162	Mellery, Xavier, Brussels,	A Roman Peasant Woman.
163	Le Gendre, Léonce, Tournai,	Clytie (Ovid).
164	Van Seben, Henri, Brussels,	Winter Amusements.
165	Raoux, Albert, Brussels,	Flowers.
166	Bossuet, François Antoine, Brussels,	Granada, Spain.
167	Bellemans, Joseph, Antwerp,	Arias Montanus visits the Printer Plantyn in Antwerp.
168	Weber, Theodore Alexander, Brussels,	Shipwreck in Douarnenez Bay, Finistère, France.
169	Roosenboom, Albert, Brussels,	The Gems.
170	Weber, Theodore Alexander, Brussels,	Shipwreck on the Shore of Mariakerke, near Ostend.
171	Verheyden, Isidore, Brussels,	Landscape.
172	Glibert, Albert, Brussels,	Good Counsels.
173	Speeckaert, Gustave, Antwerp,	Landscape—Puers, near Antwerp.
174	Ooms, Karel, Antwerp,	The First Ice of the Season.

STATUARY.

NO.	ARTIST.	TITLE.
174*a*	Fassin, Adolphe, Brussels,	The Neapolitan Water-Seller (galvanoplastic statue).

(*Memorial Hall, Gallery O.*)

STATUARY.

NO.	ARTIST.	TITLE
175	Bouré, Antoine Félix, Brussels,	The Lizard (marble).
176	Bouré, Antoine Félix, Brussels,	A Lion (marble).
177	Bouré, Antoine Félix, Brussels,	A Lion (marble).
178	Bouré, Antoine Félix, Brussels,	A Recumbent Lion (marble).
179	Brunin, Charles, Mons,	Laughing Neapolitan (bronze).
180	Comein, Polydore, Brussels,	The Little Mother (terra-cotta).
181	Comein, Polydore, Brussels,	Awakening (terra-cotta).
182	Comein, Polydore, Brussels,	Winter (terra-cotta).
183	Comein, Polydore, Brussels,	Summer (terra-cotta).
184	De Groot, Guillaume, Brussels,	A Child (marble).
185	De Villez, Louis Henri, Mons,	Laughing Faun.
186	De Woelmont, Gustave, Baron, Brussels,	Bust of Miss De W. (marble).
187	Fassin, Adolphe, Brussels,	Roma (marble).
188	Fassin, Adolphe, Brussels,	Napoli (marble).
189	Fraikin, Charles Auguste, Brussels,	The First Child (marble).
190	Fraikin, Charles Auguste, Brussels,	The Drone Bee (marble).
191	Godebski, Cyprien, Neuilly, Paris,	The Drunken Moujik (marble).
192	Godebski, Cyprien, Neuilly, Paris,	Russian Peasant Woman (marble).
193	Lefever, Edmond Florimond, Brussels,	Piccolo (terra-cotta).
194	Lefever, Edmond Florimond, Brussels,	Piccola (terra-cotta).
195	Lefever, Edmond Florimond, Brussels,	Summer (terra-cotta).
196	Lefever, Edmond Florimond, Brussels,	Remembrance (terra-cotta).
197	Rodin, Auguste, Brussels,	The Renaissance.
198	Rodin, Auguste, Brussels,	Loving Thoughts.
199	Rodin, Auguste, Brussels,	The Rose.
200	Rodin, Auguste, Brussels,	Alsacian Woman.
201	Rodin, Auguste, Brussels,	Spring.
202	Rodin, Auguste, Brussels,	Autumn (small grapes).
203	Rodin, Auguste, Brussels,	Large Grapes.
204	Rodin, Auguste, Brussels,	Field Flowers.

MEDALS.

NO.	ARTIST.	TITLE.
205	Wiener, Charles, Brussels,	Frame with the following medals: 1. The Orange Society medals. 2. Portrait of Jonas Webb. 3. The Cathedral in Seville, interior and exterior. 4. Portrait of A. Rodenbach. 5. The Cathedral of Belem (Portugal). 6. "Notre Dame" in Paris. 7. The King of Holland. 8. Medallion of Jenner. 9. Medallion—awarded for industries in Holland. 10. A. Rodenbach. 11. Two medallions—awarded by the Society of the "Seine-Inférieure." 12. Two medallions—Prince Albert of England. 13. Two medallions—The Exhibition in Oporto, Portugal. 14. Award from the Lisbon Academy of Fine Arts. 15. The Prison in Arlon. 16. Anthony Van Dyck. 17. Benjamin Rumford. 18. Queen Victoria. 19. The Queen of England. 20. A "5000 reis" silver piece, Portuguese money. 21. Benjamin Rumford. 22. Sir Moses and Lady Montefiore.

NO.	ARTIST.	TITLE.
	Wiener, Charles, Brussels,	23. A. Horsen.
		24. Baron de St. Génois.
		25. M. C. Pycke, Baron, Governor of the Province of Antwerp.
		26. National Bank in Brussels.
		27. Cardinal Sterckx.
		28. Interior of the Cathedral in Cologne.
		29. The King of the Belgians.
		30. Cardinal Dechamps.
		31. Interior of the Cathedral in Toledo, Spain.
		32. Stock Exchange in Brussels.
		33. Von Gensau.
		34. Medallion from a Fair.
		35. An English Shilling.
		36. Belgian Postage Stamp.

ARTISTIC BRASS WORK.

NO.	ARTIST.	TITLE.
206	Labaer, Jean Jacques, Antwerp,	William the Silent.
207	Labaer, Jean Jacques, Antwerp,	Marnix de Sainte-Aldegonde, Mayor of Antwerp.
208	Labaer, Jean Jacques, Antwerp,	Van Strale, Mayor of Antwerp.
209	Labaer, Jean Jacques, Antwerp,	Brederode, Chief of the Gueux.
210	Labaer, Jean Jacques, Antwerp,	Saint John (after Quentin Matsys).
211	Labaer, Jean Jacques, Antwerp,	M. Emanuel Hiel.

DECORATED FAÏENCE.

NO.	ARTIST.	TITLE.
212	Dauge, Franz, Brussels,	Battle scene.
213	Dauge, Franz, Brussels,	Landscape, with Cattle.
214	Dauge, Franz, Brussels,	The Conqueror's Return.
215	Dauge, Franz, Brussels,	Cupids.
216	Dauge, Franz, Brussels,	Cupids.
217	Dauge, Franz, Brussels,	Cupids.
218	Dauge, Franz, Brussels,	Interior.
219	De Mol, Adolphe, Brussels,	Bacchante playing the Tambourine.
220	De Mol, Adolphe, Brussels,	Bacchante.
221	De Mol, Adolphe, Brussels,	Bacchante.
222	De Mol, Adolphe, Brussels,	The Holy Family (after Rubens).
223	Meunier, Miss Georgette, Brussels,	The Holy Family.
224	Meunier, Miss Georgette, Brussels,	Diana (after Vouet).
225	Meunier, Miss Georgette, Brussels,	Spring (after Boucher).
226	Meunier, Miss Georgette, Brussels,	Harvest (after Boucher).
227	Tourteau, Edward, Brussels,	The Contented Hermit.
228	Tourteau, Edward, Brussels,	Decorated dish.
229	Tourteau, Edward, Brussels,	Decorated dish.
230	Tourteau, Edward, Brussels,	Cupids.
231	Tourteau, Edward, Brussels,	Cupids.
232	Tourteau, Edward, Brussels,	Odalisque.
233	Tourteau, Edward, Brussels,	Cupids.
234	Tourteau, Edward, Brussels,	Venus.
235	Tourteau, Edward, Brussels,	The Infant Jesus.
236	Tourteau, Edward, Brussels,	The War-Flag.
237	Tourteau, Edward, Brussels,	Holy Woman.
238	Tourteau, Edward, Brussels,	Autumn.
239	Tourteau, Edward, Brussels,	The Dance.
240	Tourteau, Edward, Brussels,	The Dance.
241	Tourteau, Edward, Brussels,	Cupids.
242	Tourteau, Edward, Brussels,	Cupids.
243	Tourteau, Edward, Brussels,	The Hours of the Day.
244	Tourteau, Edward, Brussels,	Goat.
245	Tourteau, Edward, Brussels,	Cupid.
246	Tourteau, Edward, Brussels,	Dish, style of Louis XV.

DECORATED EARTHENWARE.

NO.	ARTIST.	TITLE.
247	Tourteau, Edward, Brussels,	Nessus eloping with Dejanira.
248	Tourteau, Edward, Brussels,	Rape of the Sabines.
249	Tourteau, Edward, Brussels,	Animals.
250	Tourteau, Edward, Brussels,	Animals.
251	Tourteau, Edward, Brussels,	The Laugher and the Shepherdess.
252	Tourteau, Edward, Brussels,	The Child with the Butterfly.
253	Tourteau, Edward, Brussels,	Amphitrite.
254	Tourteau, Edward, Brussels,	Venus and Vulcan.
255	Tourteau, Edward, Brussels,	The Elopement.
256	Tourteau, Edward, Brussels,	The Elopement.
257	Tourteau, Edward, Brussels,	The Thinker.
258	Tourteau, Edward, Brussels,	The Dreamer.
259	Tourteau, Edward, Brussels,	Boy's head.
260	Tourteau, Edward, Brussels,	Girl's head.
261	Tourteau, Edward, Brussels,	The Rat-Catcher.
262	Tourteau, Edward, Brussels,	A Man's head.
263	Tourteau, Edward, Brussels,	A Woman's head.
264	Tourteau, Edward, Brussels,	Love is Conqueror.
265	Tourteau, Edward, Brussels,	The Broken Pitcher.
266	Tourteau, Edward, Brussels,	A Gothic Triptych.
267	Tourteau, Edward, Brussels,	Child's head.
268	Tourteau, Edward, Brussels,	Boy's head.
269	Tourteau, Edward, Brussels,	Girl's head.
270	Volkaerts, François Xavier, Brussels,	Cupids.
271	Volkaerts, François Xavier, Brussels,	Ducks.
272	Volkaerts, François Xavier, Brussels,	Venus and Cupid.

PHOTOGRAPHS.

NO.	ARTIST.	TITLE.
273	Royal Belgian Society for Photography,	Album of photographs (after the Belgian painter Wiertz, deceased)

ARCHITECTURAL DRAWING.

NO.	ARTIST.	TITLE.
274	De Curte, Louis, Brussels,	Plans for a cathedral in the Gothic style of the thirteenth century.

(*Annex, Gallery No. 23.*)

DRAWINGS.

NO.	ARTIST.	TITLE.
275	Demannez, Joseph, Brussels,	The Christian Martyr.

ENGRAVINGS.

NO.	ARTIST.	TITLE.
276	Biot, Gustave, Brussels,	The Triumph of Galatea (after Raphael).
277	Biot, Gustave, Brussels,	Portrait.
278	Biot, Gustave, Brussels,	Portrait of the Emperor of Austria.
279	Danse, Auguste, Mons,	The Sorceress.
280	Danse, Auguste, Mons,	The Last Moments of Charles V.
281	Danse, Auguste, Mons,	The Wedding.
282	Danse, Auguste, Mons,	The Martyrdom of Saint Peter.
283	Danse, Auguste, Mons,	The Virgin on Calvary.
284	Demannez, Joseph, Brussels,	The Christian Martyr.

NO.	ARTIST.	TITLE.
285	D'Inghuem, Le Bailly, Brussels,	Frame containing etchings.
286	D'Inghuem, Le Bailly, Brussels,	Frame containing etchings.

OIL PAINTING.

NO.	ARTIST.	TITLE.
287	Wittkamp, John Bernard, Antwerp,	Cruelty of Adolph towards his father, Duc de Guelders (Motley's History of the Netherlands).

WATER COLORS.

NO.	ARTIST.	TITLE.
288	Beeckman, Marie Ferdinand de, Brussels,	View at Tervueren, Belgium.
289	Beeckman, Marie Ferdinand de, Brussels,	View in the Forest of Fontainebleau.
290	Robinson, John, Brussels,	"She is a winsome wee thing."—(Burns.)

NETHERLANDS.

[Works of Art marked with an asterisk (*) are for sale. Information may be obtained at the office of the Netherlands Commission, in Annex, Gallery 13.]

(*Annex, Gallery No. 15.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
1	Van Lockhorst, D., Utrecht,	*Field of Heather near Epe.
2	Heemskerk, Van Beest E. v., the Hague,	*Storm near Dover.
3	Taanman, J., Amsterdam,	*Flower-Girl.
4	Koekkoek, H.. Amsterdam,	*Beach on the French Coast.
5	Koekkoek, H., Jr., London,	*Stormy Weather at Sea.
6	Israels, J., the Hague,	The Card-Players.
7	Egenberger, J. H., Groningen,	*Rain and Sunshine.
8	Van Deventer, J. F., the Hague,	*Holland Landscape.
9	Gruijter, W., Jr., Amsterdam,	*Dutch Fishermen caught in a Rain-Storm.
10	Kate, J. Mari H. Ten, the Hague,	*Good Friends.
11	Mesdag, van Houten, Mrs., the Hague,	*In the Downs.
12	Stroebel, J. A. B., the Hague,	*The Deacons of the Silversmiths' Guild conferring a Freeman's Certificate—seventeenth century.
13	Eerelman, O., Brussels,	*A Directress of the Orphan Asylum at Groningen —about the beginning of this century.
14	Bilders, J. W., Amsterdam,	*Landscape near Vorden.
15	Cunaeus, C., Amsterdam,	*In Summer.
16	Bischop, C., the Hague,	*Dieuwke.
17	Kool, S., Amsterdam,	*Saturday Afternoon in Friesland.
18	Stortenbeker, P., the Hague,	*Landscape with Cattle.
19	Canta, J. A., Rotterdam,	*Summer in the Fields.
20	Bosboom, J., the Hague,	Church at Treves.
21	Hanrath, Th.,	*A Connoisseur.
22	Haanen, Adriane, Mrs., Oosterbeek,	*Flowers.
23	Mesdag, H. W., the Hague,	*Storm on the North Sea.
24	Martens, W. J., Rome,	*Vestibule of St. Mark in Venice.
25	Rust, J. A., Amsterdam,	*View of Amsterdam—sixteenth century.
26	Oppenoorth, W. J., Antwerp,	*A Pool at Lent—Evening.
27	Apol, L., the Hague,	*Early Morning.
28	Valkenburg, H., Amsterdam,	*Domestic Happiness.
29	Koster, E., and Savry, H., Haarlem,	*River View near Dordrecht.
30	Cunaeus, C., Amsterdam,	*Annexation.
31	Postma, G., Haarlem,	*The Barber of Seville.
32	Huybers, J. D., Zwolle,	*Four Weeks after St. John's Day.
33	Vos, M., Miss, Oosterbeek,	*Still Life.
34	Soeterick, Th., Utrecht,	*Solitude.
35	Lingeman, L., Baarn,	*Trial of a Prisoner of War.
36	Van Hove, J. H., the Hague,	*Good Tidings.
37	Scholten, J. H., Haarlem,	Sunday Morning.
38	Savrij, H., Haarlem,	*Pastoral Scene near Haarlem.
39	Rochussen, Ch., Rotterdam,	*Cheese-Market in North Holland.
40	Cunaeus, C., Amsterdam,	*In Winter.
41	Heemskerk, Van Beest E. v., the Hague,	Off the Island of Texel.
42	Roth, G. A., Amsterdam,	*Mill at Vorden.

NO.	ARTIST.	TITLE.
43	Verveer, S. L. (deceased),	Village of Scheveningen.
44	Seggern, F. van, Amsterdam,	*Evening near Calmpthout.
45	Masurel, J. E., Amsterdam,	*Recreation.
46	Kate, H. F. C. Ten, the Hague,	*A Morning Concert.
47	Hazeu, A. C., Haarlem,	*Landscape in Gelderland.
48	Springer, C., Amsterdam,	*View of Toren Street in Enkhuyzen.

(*Annex, Gallery No. 5.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
49	Hilverdink, Johan, Amsterdam,	*Landscape on the Mediterranean Coast.
50	Verveer, Elchanon, the Hague,	*The Widow.
51	Vester, W., Heemstede,	*Landscape in Holland.
52	Nakken, W. C., the Hague,	Packhorses in the Woods of St. Gatlen, Normandy.
53	Oppenoorth, W. I., Antwerp,	*A Watering-Place.
54	Bisschop, C., the Hague,	At Church.
55	Koekkoek, W., the Hague,	*Scene in Kuilenburg.
56	Ronner, Mrs. Henriette, née Knip, Brussels,	*Hare in his Covert.
57	Vogel, J. G., the Hague,	*On the Heath.
58	Henkes, Gerke, the Hague,	*A Critical Moment.
59	Greive, J. C., Jr., Amsterdam,	*The Dock at Amsterdam.
60	Israels, J., the Hague,	In the Grain-Field.
61	Roelofs, W., Brussels,	Landscape.
62	Van Everdingen, A., Utrecht,	*On the River-Side.
63	Hanedoes, L., and Verveer, S. L., the Hague,	*Woodland, with Figures.
64	Sande Backhuijzen, Mrs. G. J. v. d., the Hague,	*Bouquet of Roses.
65	Tom, J. B., the Hague,	Heath with Sheep.
66	Bilders, J. W., Amsterdam,	*Landscape.
67	Israels, J., the Hague,	After the Storm.
68	Gempt, B. te, Amsterdam,	Dog.
69	Trigt, H. A. van, Hilversum,	*Norwegian Women bringing Children to be Baptized, and being welcomed by the Clergyman.
70	Maris, Willem, the Hague,	*The First Lesson in Swimming.
71	Verschuur, W., Jr., Amsterdam,	*Horse in the Stable.
72	Philippeau, C. F., Amsterdam,	On the Lookout.
73	Everdingen, A. v., Utrecht,	*Landscape with Grain-Fields.
74	Verschuur, W., Jr., Amsterdam,	*Dog.
75	Weissenbruch, Jan, the Hague,	Leerdam.
76	Vos, Miss M., Oosterbeek,	*Still Life.
77	Schenkel, J. J., Amsterdam,	*St. Nicholas Church at Amsterdam.
78	Flier, H. R. v. d., Baarn,	*In the Stable.
79	Hollander, H., Amsterdam,	*Rembrandt disposing of his Picture at the Hague.
80	Koster, E., Haarlem,	*On the Beach.
81	Windt, P. P., the Hague,	*Tough Beans.
82	Heerebaarth, G., Amsterdam,	*Suburbs of a Dutch City.
83	Sande Backhuijzen, Mrs. G. J. v. d., the Hague,	*Fruit.
84	Koekkoek, H. P., Jr., London,	*Landscape near Guilford, England.
85	Borselen, I. W. van, the Hague,	A Holland Landscape.
86	Maaten, J. J. van der, Apeldoorn,	The Canal of Apeldoorn.
87	Testas, W. de Famars, Brussels,	*A Barber's Shop at Cairo.
88	Mesdag, H. H., the Hague,	*Evening on the Beach.
89	Sadee, Th., the Hague,	The Potato-Gatherers.
90	Ronner, Mrs. Henriette, Brussels,	*The Last Hope.
91	Scholten, J. A., Haarlem,	*Summer Flowers.
92	Borselen, J. W. v., the Hague,	*Landscape.
93	Kruseman, Elten van, New York,	*Holland Landscape.
94	Kluyver, P. L. F., Amsterdam,	*Winter Evening near Amersfoort.

NO.	ARTIST.	TITLE.
95	Schipperus, P. A., Rotterdam,	*Holland Landscape.
96	Lingeman, L., Baarn,	A Conference.
97	Gempt, B. te, Amsterdam,	Three Dogs.
98	Greive, J. C., jr., Amsterdam,	*The River Y, near Amsterdam.
99	Steffellaar, J., Amsterdam,	*In the Church Kitchen.
100	Kate, J. Mari H. Ten, the Hague,	*On the Beach.
101	Boks, M., the Hague,	*Landscape.
102	Taanman, J., Amsterdam,	*Sheriff's Hall in the old Town Hall at Kampen —with figures from the sixteenth century.
103	Craeyvanger, R., Amsterdam,	*The First Pair of Spectacles.
104	Roelofs, W., the Hague,	*A Thunder-Storm.
105	Heemskerk, Van Beest E. v., the Hague,	The River Y, near Amsterdam.
106	Gempt, B. te, Amsterdam,	*The Cat Pretending to have been Hanged (after La Fontaine).
107	Kate, H. F. C. Ten, the Hague,	*The Fortunes of War—seventeenth century.
108	Apol, L., the Hague,	In the River.
109	Mauve, A., the Hague,	*Hauling up the Fishing-Boat.
110	Paling, John I., Amsterdam,	*Sunday Morning.
111	Bosboom, J., the Hague,	*The New Church at Amsterdam.
112	Mesdag, H. W., the Hague,	*Winter near the Hague.
113	Vogel, J. G., the Hague,	*Holland Landscape.

(*Annex, Gallery No. 13.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
114	Riegen, N., Amsterdam,	A Calm.
115	Heijl, M., Amsterdam,	*Evening.
116	Lingeman, L., Baarn,	*A Dutch Scholar of the Seventeenth Century.
117	Kever, J. S. H., Amsterdam,	*The Artist.
118	Altmann, S., Amsterdam,	*Petrus Plancius correcting Marine Charts.
119	Altmann, S., Amsterdam,	*The Young Bull (after Potter).
120	Seggern, F. van,	*Landscape in Norway.
121	Hilverdink, E. A., Amsterdam,	*View of the Binnen-Amstel in Amsterdam.
122	Schenkel, J. J., Amsterdam,	*Cathedral in Breda.
123	Groot, J. de, Amsterdam,	*Meditation.
124	Taanman, J., Amsterdam,	*On Duty.
125	Eichelberg, W. H., Amsterdam,	*Winter Landscape in Holland.
126	Nakken, W. C., the Hague,	*Haymaking—Normandy.
127	Kellen, D. v. d., Jr., Amsterdam,	*Secrets.
128	Koster, E., Haarlem,	*View on the River Y, near Amsterdam.
129	Deventer, J. F. van, the Hague,	*Holland Landscape and Cattle.
130	Allebé, Aug., Amsterdam,	*The Nursery.
131	Ebersbach, J. E., Amsterdam,	*Recreation.
132	Hove, B. J. v., the Hague,	*View of a part of St. Hippolytus Church at Delft.
133	Sande Backhuijzen, J. v. d., the Hague,	*River Landscape.
134	Schenkel, J. J., Amsterdam,	*The New Church in Amsterdam.
135	Reijntjes, H. E., Amsterdam,	*Twenty by Eighteen.
136	Stroebel, J. A. B., the Hague,	*Dutch Interior.
137	Rochussen, Ch., Rotterdam,	*A Picnic.
138	Rochussen, Ch., Rotterdam,	Near Scheveningen.
139	Roloefs, W., Brussels,	Landscape.
140	Kate, H. F. C. Ten, the Hague,	*Gamblers—seventeenth century.
141	Deventer, W. A., the Hague,	Near Scheveningen.
142	Rochussen, Ch., Rotterdam,	*A Moonlight Excursion.
143	Rochussen, Ch., Rotterdam,	*Reconnoitring.
144	Bilders, J. W., Amsterdam,	*Landscape.
145	Destrée, J. J., the Hague,	*Dutch Meadow.
146	Heemskerk, Van Beest E. v., the Hague,	*Arrival in the Harbor.

NO.	ARTIST.	TITLE.
147	Reijntjes, H. E., Amsterdam,	*Sixty-five by Forty.
148	Bosboom, J., the Hague,	Dutch Church.
149	Constant Rebecque, W. C. de, Loosduinen,	*Harbor of Moerdyk.
150	Kellen, David v. d., Amsterdam,	*No Bad News.
151	Joosten, D. J. H., Haarlem,	*Fruit.
152	Essen, J. C. van, Amsterdam,	*A Moment's Rest.
153	Bocks, M., the Hague,	*Landscape.
154	Riegen, N., Amsterdam,	*Coast Scene in France.
155	Altmann, S., Amsterdam,	*Jan Steen in his Studio.
156	Altmann, S., Amsterdam,	*The Masters of the Kloveniersguild (after F. Hals, 1633).
157	Altmann, S., Amsterdam,	*Masters of the Drapers (after Rembrandt).
158	Altmann, S., Amsterdam,	*Banquet of the Civil Guard (after Van der Helst).
159	Canta, J. A., Rotterdam,	*The Close of a Weary Day.
160	Eversen, A., Amsterdam,	*Street Scene in Winter.

(*Annex, Gallery No. 23.*)

ENGRAVINGS, PHOTOGRAPHS, CARVINGS.

NO.	ARTIST.	TITLE.
161	Sluijter, H. Dzn, Amsterdam,	*Fourteen engravings, representing Dutch paintings.
162	Cuypers & Stolzenberg, Sculptors, Roermond,	*a* The Crucifixion. *b* The Holy Virgin. *c* St. Joris.

(*Annex, Gallery No. 21.*)

NO.	ARTIST.	TITLE.
163	Wollrabe, H. W., the Hague,	Collection of photographs, eight in number.
164	De Jong, G., Groningen,	Three photographs.
165	Tresling & Co., Amsterdam,	Sixteen chromo-lithographs.
166	Molkenboer, W. B. G., Leeuwarden,	Two architectural compositions.
167	Kolkow, F. J. von, Groningen,	Microscopic photographs on glass.
168	Bauer, C. W., Middelburg,	Five photographs.

STATUARY.

NO.	ARTIST.	TITLE.
169	Goossens & Son, Bosch,	Saul on the Road to Damascus (terra-cotta).

DENMARK.

[Works of Art marked with an asterisk (*) are for sale. Information may be obtained at the office of the Danish Commissioner, Main Building.]

(*Annex, Gallery No. 7.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
1	Andersen, A., Copenhagen,	*Winter Landscape.
2	Andersen, A., Copenhagen,	*Afternoon in a Danish Beech Forest.
3	Eckardt, C., Copenhagen,	*The Harbor of Genoa.
4	Eckardt, C., Copenhagen,	*The Coast of Spalato, Dalmatia.
5	Hammer, H. J., Copenhagen,	*By the Fountain in Ariccia, Italy.
6	Hammer, W., Copenhagen,	Fruit under an Apple-Tree.
7	Hammer, W., Copenhagen,	*Garden Fruit in a Basket.
8	Melby, W., Copenhagen,	*Midsummer Night, Iceland, Stormy Weather.
9	Mackeprang, A., Copenhagen,	*Fox in the Chicken-Yard.
10	Mackeprang, A., Copenhagen,	*Fox and its Young.
11	Rasmussen, J. E. C., Copenhagen,	*Discovery of America in the Year 1000.
12	Rasmussen, J. E. C., Copenhagen,	*Greenlanders on a Journey.
13	Rasmussen, J. E. C., Copenhagen,	*Danish Fjord.
14	Schovelin, A., Copenhagen,	*Ruins of Heidelberg.
15	Sörensen, C. F., Copenhagen,	*Sunset on the Atlantic—An Old Frigate in a Gale.

SWEDEN.

[Works of Art marked with an asterisk (*) are for sale. Information may be obtained at the office of the Swedish Commission, Memorial Hall.]

(*Memorial Hall, Galleries H and K: Annex, Galleries Nos. 11 and 25.*)

STATUARY.

NO.	ARTIST.	TITLE.
1*a*	Börjeson, J., Rome,	*The Ladies of the Lake.
1*b*	Börjeson, J., Rome,	*Psyche.

WOOD CARVINGS.

NO.	ARTIST.	TITLE.
2	Lundmark, A., Stockholm,	*Carvings in wood.
3	Ostergren, I. P., Westeras,	*Carvings in wood.
4	Wästfelt, Carl C., Kölingsholm,	*Carvings in wood.

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
5*a*	Adelsköld, C., Stockholm,	*Preparing for Dinner.
5*b*	Adelsköld, C., Stockholm,	*A Gale on the Coast of Sweden.
6*a*	Ankarkrona, H., Stockholm,	*Evening Prayer in the Desert.
6*b*	Ankarkrona, H., Stockholm,	*View from the Boundaries of Algiers and Morocco.
7*a*	Arborelius, O. P., Stockholm,	*View from Dalarne.
7*b*	Arborelius, O. P., Stockholm,	*Winter Landscape.
8	Arsenius, John, Stockholm,	*On the Ice.
9	Bennett, C., Baron, Stockholm,	*Royal Palace, Stockholm.
10*a*	Berg, Albert, Stockholm,	*Coast of Sweden.
10*b*	Berg, Albert, Stockholm,	*Marine View.
10*c*	Berg, Albert, Stockholm,	*Winter in the Skjärgard.
10*d*	Berg, Albert, Stockholm,	*Moonlight.
11*a*	Bergh, Edward, Stockholm,	*Fishing-Harbor on the Coast of Sweden.
11*b*	Bergh, Edward, Stockholm,	*Birch Forest.
11*c*	Bergh, Edward, Stockholm,	Swedish Waterfall.
11*d*	Bergh, Edward, Stockholm,	Interior View of Pine Forest.
12	Bergman, Miss Elizabeth, Stockholm,	*Landscape in Wermland.
13	Bergstedt, Miss Amanda,	*The Difficult Lesson.
14	Billing, Th., Stockholm,	*Landscape in North Sweden.
15*a*	Boklund, J. Ch., Stockholm,	*A Marauder.
15*b*	Boklund, J. Ch., Stockholm,	*Consultation—Gustavus Adolphus and Three Warriors.
16	Brandelius, P., Stockholm,	*Dangerous Excursion.
17*a*	Börjesson, Miss Agnes, Rome,	*Farewell.
17*b*	Börjesson, Miss Agnes, Rome,	*A Happy Finding.
18*a*	Cantzler, H., Stockholm,	*Northern Landscape.
18*b*	Cantzler, H., Stockholm,	*Reaping in Italy.
19	Cedergren, P. A., Stockholm,	*View of Stockholm.
20	Cederström, G., Baron, Stockholm,	*Dark Moments.
21	Dietrichson, Mrs. M., Christiania,	*The Recovered Document.
22	Ekström, P., Stockholm,	*Summer Evening.
23*a*	Engström, W. O., Düsseldorf,	*Good-Morning!
23*b*	Engström, W. O., Düsseldorf,	*Bird of Prey carrying off a Rabbit.
24*a*	Fagerlin, F. I., Stockholm,	Boys smoking.

NO.	ARTIST.	TITLE.
24*b*	Fagerlin, F. I., Stockholm,	Jealousy.
25	Fahlgren, C. A., Stockholm,	*Landscape.
26	Hafström, A. G., Düsseldorf,	*A Captured Frenchman.
27*a*	Hermelin, O., Baron, Stockholm,	*Winter Day in Sweden.
27*b*	Hermelin, O., Baron, Stockholm,	*Poor People's Graveyard.
27*c*	Hermelin, O., Baron, Stockholm,	*The First Snow.
27*d*	Hermelin, O., Baron, Stockholm,	*Fishing-Harbor near Stockholm.
27*e*	Hermelin, O., Baron, Stockholm,	*Spring, Montmartre, Paris.
27*f*	Hermelin, O., Baron, Stockholm,	*In a Stockholm Suburb.
27*g*	Hermelin, O., Baron, Stockholm,	*The Church of St. Pierre, Paris.
27*h*	Hermelin, O., Baron, Stockholm,	*Returning at Noon.
27*i*	Hermelin, O., Baron, Stockholm,	*Landscape in Södermanland.
27*k*	Hermelin, O., Baron, Stockholm,	*Birch Forest.
27*l*	Hermelin, O., Baron, Stockholm,	*Autumn Day at Djurgarden, near Stockholm.
27*m*	Hermelin, O., Baron, Stockholm,	*Fishing-Place near Stockholm.
27*n*	Hermelin, O., Baron, Stockholm,	*Sunny Day on Montmartre, Paris.
28	Herzberg, A. G., Stockholm,	Going to Confirmation.
29*a*	Holm, P. D., Stockholm,	In the Mining Districts of Wermland.
29*b*	Holm, P. D., Stockholm,	*In the Forest.
30	Holmlund, Miss Josefina, Stockholm,	*Frederika Bremer's First and Last Home.
31*a*	Holst, J. G. von, Stockholm,	*Sheep on the Pasture.
31*b*	Holst, J. G. von, Stockholm,	*A Fruitless Effort.
32	Höckert, J., Stockholm,	*Burning of the Royal Palace in Stockholm during the Youth of Charles XII.
33*a*	Jernberg, Aug., Düsseldorf,	*Market-Day in Düsseldorf.
33*b*	Jernberg, Aug., Düsseldorf,	The Broken Pipe.
33*c*	Jernberg, Aug., Düsseldorf,	*Preparations for Meal.
33*d*	Jernberg, Aug., Düsseldorf,	*Visitors in the Amsterdam Museum, looking at Rembrandt's Night Watch.
34	Jernberg, O., Düsseldorf,	*Swedish Landscape.
35*a*	Kallenberg, A., Berlin,	*Cattle in Skane.
35*b*	Kallenberg, A., Berlin,	*Beech Forest.
35*c*	Kallenberg, A., Berlin,	Farm-House in Sweden.
36	Kjörbel, C. F., Dijon,	Dogs attacking a Fox.
37	Koskull, A. G., Baron, Stockholm,	*Boy and Wolves.
38	Kulle, J., Stockholm,	*Wedding in Skane.
39	Lagerholm, Miss W., Stockholm,	*A Mother's Grief.
40*a*	Lindegren, Miss Amalia, Stockholm,	Father returned from Market.
40*b*	Lindegren, Miss Amalia, Stockholm,	Merriment at Home.
40*c*	Lindegren, Miss Amalia, Stockholm,	Girl with an Orange.
41	Lindman, A., Stockholm,	*Evening on the West Coast of Sweden.
42	Lindström, C., Munich,	Autumn Landscape.
43	Löfgren, Miss Clara, Stockholm,	*Sorrow.
44	Lönnroth, Fr., Boras,	*Norwegian Horses.
45	Malmström, J. Aug., Stockholm,	Dance of Elves.
46*a*	Nilsson, S., Paris,	*Sigurd Ring, King of Scandinavia and England, burning himself and his Dead Bride.
46*b*	Nilsson, S., Paris,	*The King of the Children.
46*c*	Nilsson, S., Paris,	*Brother and Sister.
47*a*	Nordenberg, B.,	*Dalecarlians put to Flight by a Fire in the Forest.
47*b*	Nordenberg, B.,	*Wedding in a Swedish Country Church.
47*c*	Nordenberg, B.,	*Rest in a Säter, Alpine Dairy.
47*d*	Nordenberg, B.,	The Dead Sheep.
48*a*	Nordgren, Miss Anna, Paris,	*Italian Girl.
48*b*	Nordgren, Miss Anna, Paris,	*Genre.
49*a*	Nordgren, Axel, Düsseldorf,	*View from the Promontory of Kullen in Skane.
49*b*	Nordgren, Axel, Düsseldorf,	*Coast Scenery.
50	Nordlander, Miss Anna, Stockholm,	*The Favorite Toilet.
51	Palm, G. W.,	*View of Stockholm

NO.	ARTIST.	TITLE.
52	Perseus, Edw., Stockholm,	*Parisian Maid.
53	Post, Miss Christine, Stockholm,	The Five Foolish Virgins at the Locked Door.
54*a*	Ribbing, Miss S., London,	*Young Girl with Grapes.
54*b*	Ribbing, Miss S., London,	*Girl at the Säter.
54*c*	Ribbing, Miss S., London,	*The Gardener's Children.
54*d*	Ribbing, Miss S., London,	*Girl with Eggs.
55	Rosen, C., Count von, Stockholm,	Portrait.
56*a*	Rydberg, C. F., Stockholm,	Winter Landscape.
56*b*	Rydberg, C. F., Stockholm,	Spring Landscape.
56*c*	Rydberg, C. F., Stockholm,	Landscape in Bleking.
57	Salmson, Hugo, Stockholm,	*Odalisque.
58*a*	Saloman, Geskel, Stockholm,	Maid with an Open Letter.
58*b*	Saloman, Geskel, Stockholm,	*At the Letter-Box.
58*c*	Saloman, Geskel, Stockholm,	*Religious Ceremony on the Coast of Algiers.
59*a*	Schwerin, Baroness Amalia von, Düsseldorf,	*Landscape with Cattle.
59*b*	Schwerin, Baroness Amalia von, Düsseldorf,	*Landscape with Cattle.
60	Sidwall, Miss Amanda, Paris,	*Mulatto Women.
61	Skanberg, C. E., Paris,	*In the Spring.
62	Svenson, F., Stockholm,	*H M. Frigate "Vanadies."
63	Södergren, Miss Sofia, Paris,	*French Coast Landscape.
64*a*	Törna, O., Düsseldorf,	*Pine Forest, Sweden.
64*b*	Törna, O., Düsseldorf,	*Moonrise, Sweden.
64*c*	Törna, O., Düsseldorf,	*Birch Forest, Sweden.
65	Wahlberg, H. A. L., Paris,	Moonlight Landscape.
66*a*	Wahlquist, E., Sigtuna,	*Hunting Party.
66*b*	Wahlquist, E., Sigtuna,	*Cronborg Castle, at the Oeresund.
66*c*	Wahlquist, E., Sigtuna,	*Smugglers.
67	Wallander, W., Stockholm,	*Forge in the Forest.
68*a*	Wallander & Torslow, Stockholm,	*Shepherds making a Fire.
68*b*	Wallander & Torslow, Stockholm,	*Saturday Night on an Alpine Pasture.
69	Werner, G., Naples,	*The Salamander.
70*a*	Winge, Mrs. H., Stockholm,	*Church at Rättwik, Dalarne.
70*b*	Winge, Mrs. H., Stockholm,	*Before Service.
71*a*	Winge, E., Stockholm,	*Signe burning Herself on witnessing her Lover hanged.
71*b*	Winge, E., Stockholm,	*Viking Fleet.
72*a*	Virgin, J. G., Stockholm,	*Letter-Box in Dalarne.
72*b*	Virgin, J. G., Stockholm,	*On the Meadow.
73	Zetterström, Mrs. M., Paris,	*"Of what is she thinking?"

WATER COLORS.

NO	ARTIST.	TITLE.
74	Ahrenberg, J., Stockholm,	*City Gate of Rouen.
75*a*	Blackstadius, J. L., Stockholm,	*Miller's Cottage at Alwastra.
75*b*	Blackstadius, J. L., Stockholm,	*In Stockholm's Skjärgard.
76*a*	Gardell, Miss Anna, Stockholm,	*Views from Skane.
76*b*	Gardell, Miss Anna, Stockholm,	*A Spring Day.
77	Hellquist, H., Paris,	*Genre.
78*a*	Hägg, J., Stockholm,	*In the River at Stockholm.
78*b*	Hägg, J., Stockholm,	*Man-of-War.
79	Kylberg, Miss Regina, Stockholm,	*The Halsfors in Norway.
80*a*	Larson, Miss Virginia, Stockholm,	*Peasant Girl from Dalarne.
80*b*	Kylberg, Miss Virginia, Stockholm,	*Swedish Landscape.

NORWAY.

[Works of Art marked with an asterisk (*) are for sale. Information can be obtained at the office of the Norwegian Commission, Main Building.]

(*Memorial Hall, Gallery K.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
1	Gude, Hans, Carlsruhe,	*A Fresh Breeze, Norwegian Coast.
2	Bennetter, J. J., Paris,	*Vikings at Sea.
3	Arbo, P. M., Christiania,	*Day.
4	Böe, Frantz, Bergen,	*Midnight Sun in Norway.
5	Gude, Hans, Carlsruhe,	*Calm, Christianiafiord.
6	Thaulow, Fritz, Christiania,	*On the Thames.
7	Schanche, Herm. G., Düsseldorf,	*The Folgefond Glacier in Norway.
8	Askevold, A., Bergen,	*Summer Day at the Mountain Tarn.
9	Thurman, P., Christiania,	*Hardangerfiord.
10	Lerche, Vinc. St., Düsseldorf,	*Studio in a Monastery.
11	Munthe, ——, Düsseldorf,	Winter Day in a Forest.
12	Tidemand, A., Düsseldorf,	Peasants in a Wood.

(*Memorial Hall, Gallery K.*)

SCULPTURE.

NO.	ARTIST.	TITLE.
12*a*	Borch, C., Rome,	*Jephthah's Daughter.

(*Annex, Gallery No. 7.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
13	Thaulow, Fritz, Christiania,	*View of the Ice Channel, Christianiafiord.
14	Skari, E. O. R., Christiania,	*French Fishermen in the Channel.
15	Jacobsen, S., Düsseldorf,	*Birch Forest.
16	Schive, Jacob, Düsseldorf,	*Norwegian Winter Landscape.
17	Gude, Hans, Carlsruhe,	*View from Dröbak, near Christiania.
18	Sinding, Otto, Munich,	*Fight at a Christmas Feast.
19	Askevold, A., Bergen,	*Evening on the Mountain Pastures.
20	Möller, Niels B., Düsseldorf,	*Waterfall in Telemarken, Norway.
21	Nielsen, Amaldus, Christiania,	*The Vingeraashei, Telemarken.
22	Norman, A., Düsseldorf,	*Landscape from Lærdal, Sognefiord.
23	Baade, Knud, Munich,	*View on the Norwegian Coast.
24	Nicolaysen, L. W., Christiania,	*Norwegian Landscape, from Lake Bandak, in Telemarken.
25	Möller, Niels B., Düsseldorf,	*The Kirkevig near Lysekil, Sweden.
26	Nielsen, Johan, Munich,	*Approaching Thunder-Storm, Lofoten Islands, Norway.
27	Norman, A., Düsseldorf,	*Norwegian Fiord.
28	Bennetter, J. J., Paris,	*Sea-Fight between the Frigate "La Preneuse" and the line-of-battle ship "Jupiter," off Le Banc des Aiguilles, 26th September, 1799.
29	Sinding, Otto, Munich,	*Ruth and Boaz.
30	Wexelsen, Chr., Christiania,	*Scenery from Sörfiorden, Hardanger.
31	Smith-Hald, F., Düsseldorf,	*Winter Day, Bohuslän, Sweden.
32	Möller, Niels B., Düsseldorf,	*Moonlight, Lysekil.

NO.	ARTIST.	TITLE.
33	Jacobsen, S., Düsseldorf,	*Winter Scenery.
34	Möller, Niels B., Düsseldorf,	*From Fiorland, Sognefiord, Norway.
35	Nielsen, Amaldus, Christiania,	*Scenery in the Sognefiord, Norway.
36	Hanno, W. von, Christiania,	*A Street in Brunswick, Germany.
37	Bergslien, Christiania,	*Portrait.
38	Grimelund, I. M., Paris,	*A Summer Morning in the Birch Forest.
39	Böe, Frantz, Bergen,	*Fruits.
40	Rummelhof, Chr., Arendal,	"Morning"—Faleide in Norfiord.
41	Ulfsten, ——, Carlsruhe,	*Moonrise on the Norwegian Coast.
42	Nielsen, Amaldus, Christiania,	*Towards Evening.
43	Lorck, Carl J., Düsseldorf,	*The Elk-Hunters.
44	Anker, Herman, Christiania,	Scenery in Romsdalen.
45	Dahl, Hans, Bergen,	*Natives of Western Norway.
46	Anker, Herman, Christiania,	*Scenery near Loen, in Nordfiord.
47	Böe, Frantz, Bergen,	*Flowers.
48	Rummelhof, Chr., Arendal,	*After the Rain—View in the Sörfiord.
49	Bergh, Anton, Christiania,	*The Folgefond Glacier in Hardanger.
50	Norman, A., Düsseldorf,	*Scenery in the Romsdalsfiord.
51	Vigdal, A. G., Bergen,	*Waterfall—View in Vos.
52	Lerche, Vinc. St., Düsseldorf,	*Interior of a Monastery.

(*Annex, Gallery No. 7.*)

SCULPTURE.

NO.	ARTIST.	TITLE.
53	Borch, C., Rome,	*Morning (marble).
54	Borch, C., Rome,	*Evening (marble).
55	Sinding, Stephan, Christiania,	*Hermes (marble).
56	Sinding, Stephan, Christiania,	*Völund (plaster).

ITALY.

(*Annex, Gallery No. 1.*)

SCULPTURE.

NO.	ARTIST.	TITLE.
1	Lazzerini, Pietro, Florence,	Brotherly Love (group in marble).
2	Bernasconi, Pietro, Milan,	The Adulteress.
3	Magni, Prof., Milan,	The Sergeant's Family.
4	Becucci Brothers, Florence,	Bacchante.
5	Bottinelli, Antonio, Rome,	Modesty.
6	Pazzi, Prof. Enrico, Florence,	Innocence Playing with Vice.
7	Martegani, Alessandro, Milan,	Moses trampling on the Crown of Pharaoh.
8	Sarrocchi, Prof. Tito, Siena,	The First Capture.
9	Malfatti, Andrea, Milan,	Emancipation.
10	Braga, Enrico, Milan,	Morning.
11	Pazzi, Prof. Enrico, Florence,	Cupid Asleep.
12	Romani, Prof. Carlo, Milan,	A Jealous Sweetheart.
13	Caroni, Prof. Emanuele, Florence,	Cold.
14	Motelli, Metello, Milan,	Prayer.
15	Barcaglia, Donato, Milan,	Fleeting Time.
16	Bazzanti, Peter, & Son, Florence,	Ruth.
17	Caroni, Prof. Emanuele, Florence,	Effects of Cold Water.
18	Sarrocchi, Prof. Tito, Siena,	The Fisher-Boy.
19	Barzaghi, Francesco, Milan,	Blind-Man's-Buff.
20	Barzaghi, Francesco, Milan,	Vanity.
21	Marai, Luigi, Milan,	Cupid Flying.
22	Calvi, Pietro, Milan,	A Courageous Defender of the Feeble.
23	Malfatti, Andrea, Milan,	After the Bath.
24	Trombetta, Milan,	"The First Step."
25	Argenti, Giosuè, Milan,	Dreams of Youth.
26	Zannoni, Ugo, Milan,	The Future Artist.
27	Bernasconi, Pietro, Milan,	A Childish Pleasure.
28	Bernasconi, Pietro, Milan,	A Child's First Misfortune.
29	Ramazzotti, Serafino, Rome,	Spirit of Liberty.
30	Calvi, Pietro, Milan,	The Flower.
31	Becucci Brothers, Florence,	A Gipsy.
32	Pandiani, Innocente, Milan,	Eagle attacking a Turkey.
33	Braga, Enrico, Milan,	Playing Cat's Cradle.
34	Braga, Enrico, Milan,	Beating the Rataplan.
35	Epinay, Cav. Prospero, Rome,	The Youthful Hannibal.
36	Bracony, Guglielmo, Rome,	Vanity.
37	Bergonzoli, Giulio, Milan,	Angelic Love.
38	Lombardo, Giovanni, Rome,	Hen and Chickens.
39	Ragusa, Vincenzio,	Young Bacchus.
40	Maraini, Adelaide, Rome,	Innocence (exhibited in Women's Pavilion).
41	Corti, ——, Milan,	Lucifer.
42	Del Panta, Egisto, Florence,	Carnival.
43	Braga, Enrico, Milan,	Cleopatra.
44	Frilli, Antonio, Florence,	Winter.
45	Pandiani, Costantino, Milan,	Love's First Whispers.
46	Frilli, Antonio, Florence,	Spring.
47	Romanelli, Prof. Pasquale, Florence,	Madonna of San Sisto.
48	Miglioretti, Milan,	Death of Abel.
49	Lazzerini, Pietro, Florence,	Innocence.

NO.	ARTIST.	TITLE.
50	Magni, Prof., Milan,	Angelica.
51	Pagani, Luigi, Milan,	Psyche.
52	Pagani, Luigi, Milan,	Lurking Love.
53	Pagani, Luigi, Milan,	Child's First Grief.
54	Pagani, Luigi, Milan,	Luisa San Felice, of Naples.
55	Monari, Alessandro, Ravenna,	Raphael of Urbino.
56	Pessina, Carlo, Milan,	The Bird's Nest.
57	Romanelli, Prof. Pasquale, Florence,	Ruth.
58	Tantardini, Antonio, Milan,	Bathing Girl.
59	Bazzanti, Peter, & Son, Florence,	Vase (in green marble).
60	Becucci Brothers, Florence,	Boy with a Dove.
61	Ragusa, Vincenzo, Milan,	Emancipation.
62	Pandiani, Giovanni, Rome,	Caprice (bust).
63	Struzza, Giovanni, Milan,	Alessandro Manzoni (bronze).
64	Frilli, Antonio, Florence,	Autumn.
65	Cambi, Ulisse, Florence,	Moses trampling on the Crown of Pharaoh.
66	Martegani, Alessandro, Milan,	Garibaldi (bust).
67	Luccardi, Prof., Milan,	Innocent Contrast.
68	Biella, Angelo, Milan,	Woman of Pompeii.
69	Funeo, Pietro, Milan,	Maternal Hope.
70	Argenti, Antonio, Milan,	Modesty (bust).
71	Veneroni, Rome,	The Prayer (bust).
72	Becucci Brothers, Florence,	Girl and Dog.
73	Frilli, Antonio, Florence,	Tazza (in green marble).
74	Saul, Giorgio, Florence,	The Last Farewell to her Native Land.
75	Motelli, Metello, Milan,	An Awkward Surprise.
76	Bazzanti, Peter, & Son, Florence,	Washington and his Hatchet.
77	Bazzanti, Peter, & Son, Florence,	Franklin and his Whistle.
78	Bottinelli, Cesare, Milan,	Beatrice Cenci.
79	Dini, Ernesto, Florence,	The Bride.
80	Porcinai, Antonio, Florence,	Innocence.
81	Ferraro, Filippo, Rome,	The Holy Family (bas-relief).
82	Maraini, Adelaide, Rome,	Angels after the Resurrection (bas-relief. In Women's Pavilion).
83	Ramazzotti, Serafino, Rome,	Piety (bas-relief).
84	Maraini, Adelaide, Rome,	Angels before the Resurrection (bas-relief. In Women's Pavilion).
85	Lombardi, Giovanni, Rome,	Flowers (bas-relief).
86	Porcinai, Antonio, Florence,	The Fisher-Girl.
87	Peduzzi, Renato, Milan,	Chimney-piece with a Boy representing Silence.
88	Porcinai, Antonio, Florence,	Girl and Dog.
89	Metti, Raimondo, Florence,	Bust of Dante's Beatrice.
90	Dini, Ernesto, Florence,	Effect of the Wind.

(Annex, Gallery No. 1.)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
91	Tedesco, Prof. Michele, Florence,	The School of Love.
92	Lodigiani, Scipione, Milan,	Galileo before the Tribunal of the Inquisition.
93	Bigara, C. F., Milan,	The Invention of Engraving.
94	Bisi, Prof. Luigi, Milan,	Interior of St. Mark's Church, Venice.
95	Gilli, Alberto, Turin,	Arnoldo da Brescia and Pope Adrian IV.
96	Rubio, Prof. Luigi, Florence,	Magdalene.
97	Bisi, Prof. Luigi, Milan,	Landscape.
98	Trenti, Girolamo, Milan,	Inundation of the River Po, Italy.
99	Romoli, ——, Florence,	Copy of Fra Angelico's Incarnation of the Virgin.
100	Fumagalli, Michelangelo,	Columbus conducted back to Spain as a Prisoner.
101	Roi, Pietro, Venice,	Lombardy and Venice, the Two Sister Provinces.
102	Cornienti, Cherubino, Bologna,	Lodovico il Moro visits Leonardo da Vinci while building the Canal of Pavia.
103	Giroux, Ernesto, Rome,	A Cup of Tea.

NO.	ARTIST.	TITLE.
104	Romoli, Florence,	Copies of Fra Angelico's Angels and Virgins.
105	Romoli, Florence,	Copies of Fra Angelico's Angels and Virgins.

(*Annex, Gallery No. 1.*)

FLORENTINE MOSAIC WORK.

[The tables and pictures exhibited in the Annex of Memorial Hall, by the following manufacturers and artists of Florentine mosaics, are all made of small pieces of natural stones, inlaid in black marble, porphyry, or other stones.]

MOSAIC TABLES.

NO.	ARTIST.	TITLE.
106	Scappini, Giovanni, Florence,	The Table of Science, and various other tables.
107	Civita, Angelo, Florence,	Table inlaid in porphyry, and collection of various tables.
108	Torrini, Giocondo, Florence,	Large round table with bouquet and garland, and various other tables.
109	Bazzanti, Peter, & Son, Florence,	Two large round tables, rococo style, and collection of various tables.
110	Boncinelli, Giov., & Co., Florence,	Collection of various mosaic tables.
111	Betti, Francesco, Florence,	Collection of various tables.
112	Bianchini, Telemaco, Florence,	Collection of mosaic tables.
113	Francolini, Tito, Florence,	Mosaic table with Ganymede and the eagle; collection of mosaic tables.
114	Montelatici Brothers, Florence,	Collection of various mosaic tables.
115	Montelatici, Giuseppe, Florence,	Collection of mosaic tables.
116	Novello, Luigi, Florence,	Collection of mosaic tables.
117	Ugolini, Giov., & Co., Florence,	Collection of mosaic tables.
118	Sandrini, Antonio, Florence,	Collection of mosaic tables.
119	Orlandini, Florence,	Collection of mosaic tables.
120	Gherardi, Goffredo, Florence,	Square table—illustration of Michael Angelo.
121	Brunacci, Pietro, Florence,	Mosaic table.
122	Falcini, Andrea, Florence,	Mosaic tables.
123	Scarselli, Nicola, Florence,	Collection of mosaic tables.
124	Vichi, Ferdinando, Florence,	Collection of mosaic tables.

(*Annex, Gallery No. 1.*)

MOSAIC PICTURES.

NO.	ARTIST.	TITLE.
125	Scarselli, Nicola, Florence,	Still Life.
126	Francolini, Tito, Florence,	The Falconer.
127	Scarselli, Nicola, Florence,	Still Life.
128	Francolini, Tito, Florence,	Portrait of President Lincoln.
129	Bianchini, Telemaco, Florence,	Jacob, Rachel, and Laban.
130	Bianchini, Telemaco, Florence,	Cimabue and Giotto, and four medallions.
131	Bianchini, Telemaco, Florence,	Vase of flowers.
132	Betti, Telemaco, Florence,	A Bouquet.
133	Betti, Telemaco, Florence,	A Bouquet.
134	Francolini, Tito, Florence,	A Roman Peasant Woman.
135	Francolini, Tito, Florence,	Group in the Goldonian Costume.
136	Francolini, Tito, Florence,	Woman of the Roman Campagna.
137	Francolini, Tito, Florence,	The Improvisator.
138	Francolini, Tito, Florence,	A Neapolitan Fisherman playing the Guitar.
139	Francolini, Tito, Florence,	Fowls.
140	Boncinelli, Giov., & Co., Florence,	Still Life.
141	Boncinelli, Giov., & Co., Florence,	Monks in a Cellar.
142	Boncinelli, Giov., & Co., Florence,	A Page leading the Favorite Horse to his Master.
143	Boncinelli, Giov., & Co., Florence,	Scene in a Roman Village.

NO.	ARTIST.	TITLE.
144	Boncinelli, Giov., & Co., Florence,	Still Life.
145	Scappini, Giovanni, Florence,	Roman Costume.
146	Scappini, Giovanni, Florence,	Woman of the Roman Campagna.
147	Scappini, Giovanni, Florence,	Woman of the Roman Campagna.
148	Scappini, Giovanni, Florence,	Interior of the Bargello, Florence.

(*Annex, Gallery No. 3.*)

SCULPTURE.

NO.	ARTIST.	TITLE.
149	Bazzanti, Peter, & Son, Florence,	Rebecca at the Well.
150	Peduzzi, Renato, Milan,	Boy and Bird.
151	Barcaglia, Donato, Milan,	The First Visit.
152	Pereda, Raimondo, Milan,	Love's Net.
153	Peduzzi, Renato, Milan,	Boy and Swan.
154	Barcaglia, Donato, Milan,	Butterfly.
155	Peduzzi, Renato, Milan,	Berenice.
156	Caroni, Prof. Emanuele, Florence,	L'Africaine.
157	Guarnerio, Pietro, Milan,	White Rose.
158	Guarnerio, Pietro, Milan,	The Orphan.
159	Cantalamessa, P. Capotti, Rome,	Storm.
160	Cantalamessa, P. Capotti, Rome,	The Mirror of Love.
161	Cantalamessa, P. Capotti, Rome,	Sunshine.
162	Torelli, Lot, Florence,	Eva St. Clair, "Uncle Tom's Cabin."
163	Guarnerio, Pietro, Milan,	Girl at the Bath.
164	Caroni, Prof. Emanuele, Florence,	Effects of Cold Water.
165	Barcaglia, Donato, Milan,	Children Blowing Bubbles.
166	Guarnerio, Pietro, Milan,	Evening.
167	Fantachiotti, Cesare, Florence,	Vanity.
168	Trojani, Giovanni Battista, Florence,	Bas-relief in terra-cotta.
169	Spertini, Giovanni, Milan,	Bas-relief in terra-cotta—The Modern Cain.
170	Trojani, Giov. Batt., Florence,	Bas-relief in terra-cotta—Michel Angelo in San Miniato
172	Argenti, Antonio, Milan,	The Prayer.
173	Bottinelli, Antonio, Rome,	Hope (bust)
175	Bernasconi, Pietro, Milan,	Summer (bust).

(*Annex, Gallery No. 3.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
176	Faustini, Modesto, Rome,	A Revolt.
177	Formis, Achille, Milan,	Landscape—A Park.
178	Lessi, Luigi, Rome,	The Conspiracy of the Pazzi.
179	Zuccoli, Luigi, Rome,	The Christian Martyrs under Nero.
180	Fattori, Giovanni, Florence,	A Horse-Market.
181	Della Valle, N., Leghorn,	Storm on the Coast.
182	Accarisi, Lodovico, Florence,	Summer.
183	Accarisi, Lodovico, Florence,	Dancing the Tarantella.
184	Accarisi, Lodovico, Florence,	The Bath.
185	Accarisi, Lodovico, Florence,	Playing on the Tambourine.
186	Quériau, Luigi, Messina,	Scene in Sicily.
187	Palazzi, Gaetano, Bologna,	A Refusal.
188	Fontana, Roberto, Milan,	Evocation of Souls, from "Robert le Diable."
189	Fattori, Giovanni, Florence,	Landscape—At Rest in Summer.
190	Malatesta, Cav. Prof. Narciso, Modena,	Laja, a celebrated Roman artist, painting Julius Cæsar as Apollo.
191	Signorini, Telemaco, Florence,	Olive-Gathering in Tuscany.
192	Zuccoli, Prof. Luigi, Rome,	A Poor Man at the Church-Door.
193	Romagnoli, Angelo, Florence,	Meditation.

NO.	ARTIST.	TITLE.
194	Marchesi, Salvatore, Parma,	Interior of the Choir of the Cathedral of Parma.
195	Cammarano, Michele, Rome,	A Grandmother's Admonition.
196	Zuccoli, Prof. Luigi, Rome,	The Hunter's Rest.
197	Ashton, Federico, Florence,	Woods in Autumn.
198	Solmi, Prof. Valentino, Bologna,	Bizantino d'Aria.
199	Gioli, Francesco, Florence,	The Unlucky Number.
200	Altamura, Prof., Naples,	The Bagpipe-Player.
201	Fattori, Giovanni, Florence,	The Escort.
202	Maldarelli, Federico, Naples,	The Reader.
203	Maldarelli, Federico, Naples,	The Assumption.
204	Fattori, Giovanni, Florence,	Returning from a Military Inspection.
205	Iosio, Prof. Luigi, Rome,	Noon in the Roman Campagna.
206	Bade, Garcia, Rome,	A Portrait.
207	Ridossi, Angelo, Milan,	Resting.
208	Lelli, Giovanni, Milan,	View of Lakes Margozza and Maggiore.
209	Fattori, Giovanni, Florence,	The Roman Campagna (Oxen).
210	Maldarelli, Prof. Federico, Naples,	A Flower-Girl of Pompeii.
211	Gastaldi, Prof. Andrea, Turin,	"Beware of a False Step."
212	De Santis, Guglielmo, Rome,	A Veiled Figure.
213	Pesenti, Domenico, Florence,	The Ducal Palace of Venice.
214	Ribossi, Angelo, Milan,	"At work yet."
215	Maldarelli, Prof. Federico, Naples,	A Bath in Pompeii.
216	Totti, Prof. Carlo, Milan,	The Vintage.
217	Scifoni, Anatolio, Rome,	Preparation for a Feast in Pompeii.
218	Accarisi, Lodovico, Florence,	Sleeping Child and Dog.
219	Giuliani, Prof. Bartolomeo, Milan,	An Alpine Sketch.

(*Annex, Galleries Nos. 2 and 17.*)

SCULPTURE.

NO.	ARTIST.	TITLE.
220	Bottinelli, Antonio, Rome,	Modesty.
221	Dini, Ernesto, Florence,	Beggar Woman.
222	Romanelli, Prof. Pasquale, Florence,	Franklin and his Whistle.
223	Zocchi, Prof. Emilio, Florence,	Benjamin Franklin in his Youth.
224	Romanelli, Prof. Pasquale, Florence,	Washington and his Hatchet.
225	Villa, Federico Gaetano, Milan,	Girl Playing with a Bird.
226	Torelli, Lot, Florence,	Timidity.
227	Peduzzi, Renato, Milan,	Boy and Basket.
228	Peduzzi, Renato, Milan,	Dancing Faun.
229	Pandiani, Costantino, Milan,	Moses Trampling on the Crown of Pharaoh.
230	Borghi, Ambrogio, Milan,	Carnival.
231	Pereda, Raimondo, Milan,	A Child's Grief.
232	Barzaghi, Francesco, Milan,	A Young Smoker.
233	Butti, Enrico, Milan,	"Once I was rich."
234	Society of Sculptors, Florence,	The Young Soldier.
235	Society of Sculptors, Florence,	A Rose's Perfume.
236	Ramaschiello, Vincenzo, Rome,	Cupid on the Lookout.
237	Caroni, Prof. Emanuele, Florence,	Bust of a Roman Girl.
238	Society of Sculptors, Florence,	Iole and Ruggiero.
239	Caroni, Prof. Emanuele, Florence,	Winter.
240	Torelli, Lot, Florence,	A Good Housekeeper.
241	Del Panta, Egisto,	Goldoni's Boyhood.
242	Tantardini, Prof. Antonio, Milan,	A Wounded Friend.
243	Malfatti, Andrea, Milan,	The Discarded.
244	Barcaglia, Donato, Milan,	The First Friend.
245	Pereda, Raimondo, Milan,	Delight.

NO.	ARTIST.	TITLE.
246	Bazzanti, Peter, & Son, Florence,	Dancing Bacchante.
247	Rossi, Prof. Alessandro, Milan,	Hope.
248	Borghi, Ambrogio, Milan,	The Mother's Treasure.
249	Rossetti, Antonio, Rome,	Ophelia.
250	Zocchi, Prof. Emilio, Florence,	Michael Angelo sculpturing the head of a Faun
251	Gori, Lorenzo, Florence,	After the Bath.
252	Dini, Ernesto, Florence,	Dante and Beatrice—Childhood.
253	Magni, Prof. Enrico, Milan,	The Reader.
254	Vela, Prof. Vincenzio, Milan,	The First Sorrow.
255	Rossi, Prof. Alessandro, Milan,	A Free Church in a Free State.

(*Annex, Galleries Nos. 2 and 17.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
256	Mancini, Carlo, Milan,	A Dutch Farm.
257	Michis, Pietro, Milan,	During the Sermon.
258	Accarisi, Lodovico, Florence,	Meditation.
259	De Sanctis, Guglielmo, Rome,	Waiting for her Lover.
260	Formis, Augusto, Turin,	The Refusal.
261	Gelati, Prof. Lorenzo, Florence,	View of Florence.
262	Solmi, Prof., Bologna,	Porta del Popolo, Rome.
263	Lombardi, Giovanni, Rome,	Flowers.
264	Mancinelli, Prof. Gustavo, Naples,	The Harpist.
265	Meuccei, Michele, Florence,	Still Life (two pictures).
266	Bartesago, Enrico, Milan,	Noon in the Country.
267	Moia, ——, Venice,	Rear of Caen Cathedral.
268	Accarisi, Lodovico, Florence,	Ideal Portrait.
269	Dies, Cesare, Rome,	Interior of St. Peter's, Rome.
270	Ashton, Federico, Rome,	Landscape.
271	Della Libera, Giov. Batt., Venice,	A Sleeping Gipsy.
272	Sommaruga, Napoleone, Milan,	Landscape, with Boys Bathing.
273	Bianchi, Luigi, Milan,	The Nettunese Bride.
274	Accarisi, Lodovico, Florence,	A Beggar Monk.
275	Pitarra, Cav. Carlo, Rome,	At the Foot of the Alps.
276	Faccioli, Raffaello, Bologna,	Two o'clock at the Procurator's Office in Venice.
277	Picchi, Andrea, Florence,	Frame in ebony, Florentine style (sixteenth century), with picture.
278	Bianchi, Cav. Luigi,	A Birthday in the Eighteenth Century.
279	Formis, Achille, Milan,	The Alpine Tourists.
280	Gioli, Francesco, Florence,	Working in the Campagna of Pisa.
281	Sommaruga, Napoleone, Naples,	Porch of the Church of San Ambrogio, Milan.
282	Stanghi, Carolina, Florence,	Fruit (copy).
283	Bersini, Ferdinando, Rome,	A Mass in the Country.
284	Signorini, Telemaco, Florence,	The Convent of Vallombrosa, in Tuscany.
285	Sommaruga, Napoleone, Naples,	Interior of St. Alexander's Church.
286	Signorini, Telemaco, Florence,	Scottish Covenanters.
287	Bompiani, Roberto, Rome,	Pompeiian Boy Flute-Player.
288	Bompiani, Roberto, Rome,	The Anniversary.
289	Picchi, Andrea, Florence,	Ebony frame, Florentine style (sixteenth century), with picture.
290	Picchi, Andrea, Florence,	Ebony frame, Florentine style (sixteenth century).
291	Michis, Cataneo, Milan,	Angelic Love.
292	Ashton, Prof. Luigi, Milan,	Animals.
293	Radice, Cav. Pasquale, Naples,	View of Mount Etna, Sicily.
294	Bompiani, Roberto, Rome,	Scene in a Neapolitan Village.
295	Fattori, Giovanni, Florence,	Arrival of the Mail in Camp.
296	Accarisi, Lodovico, Florence,	Spring.
297	Meuccei, Michele, Florence,	Still Life.
298	Cicconi, Prof. Ferdinando, Ancona,	Columbus at the Convent of Palos.

NO.	ARTIST.	TITLE.
299	Busio, Prof. Luigi, Florence,	Neapolitan Fishermen.
300	Trenti, Girolamo, Milan,	Landscape in the Province of Mantua.
301	Accarisi, Lodovico, Florence,	A Moorish portrait.
302	Busio, Prof. Luigi, Florence,	The Flight into Egypt.
303	Strutt, A. T., Rome,	Working in the Roman Campagna.
304	Picchi, Andrea, Florence,	Ebony frame (style, sixteenth century), with picture.
305	Della Libera, Giov. Batt., Venice,	The Council of Ten in Venice.
306	Mazza, Salvatore, Milan,	Roman Woman.
307	Trezzini, Angelo, Milan,	Returning from Church.
308	Trenti, Girolamo, Milan,	Group of Trees.
309	Accarisi, Lodovico, Florence,	Milanese portrait.
310	Bryner, Giovanni, Florence,	The Staubbach Cascade in Switzerland.
311	Michis, Pietro, Milan,	A Happy Morning.
312	Solmi, Valentino, Bologna,	Mosque of Soliman, Constantinople.
313	Accarisi, Lodovico, Florence,	Girl and Dog.
314	Mazza, Salvatore, Milan,	Landscape (group of horses.)
315	Jotti, Prof. Carlo, Milan,	Approaching Storm.
316	Smargiassi, Giovanni, Naples,	View of Naples.
317	Steffani, Luigi, Milan,	Sheep.
318	Burlando, Prof. Leop., Milan,	Borromeo's Cliff.
319	Accarisi, Lodovico, Florence,	The Coming Storm.
320	Cicconi, Ferdinando, Ancona,	Columbus in Prison.
321	Cassioli, Annibale, Florence,	The Studio of Leonardo da Vinci.
322	Accarisi, Lodovico, Florence,	Shepherds in the Roman Campagna.
323	Candidi, Alfredo, Florence,	The Bagpipe-Player.
324	Scifoni, Anatolio, Rome,	Offerings to the Lares.
325	Mazza, Salvatore, Milan,	Landscape.

(*Annex, Gallery No. 4.*)

SCULPTURE.

NO.	ARTIST.	TITLE.
326	Tantardini, Prof. Antonio, Milan,	Girl Reading.
327	Frilli, Antonio, Florence,	Dancing Boys
328	Barzaghi, Milan,	Phryne before the Judges.
329	Guarnerio, Pietro, Milan,	The Last Days of Pompeii.
330	Cambi, Prof. Ulisse, Florence,	At the Carnival.
331	Guarnerio, Pietro, Milan,	Raphael of Urbino in his Youth.
332	Guarnerio, Pietro, Milan,	The Forced Prayer.
333	Guarnerio, Pietro, Milan,	Vanity.
334	Caroni, Prof. Emanuele, Florence,	Birth of Love.
335	Caroni, Prof. Emanuele, Florence,	Love's Messenger.
336	Guarnerio, Pietro, Milan,	The Rebuke.
337	Caroni, Prof. Emanuele, Florence,	A Christmas-Present.
338	Caroni, Prof. Emanuele, Florence,	Youth as a Butterfly.
339	Caroni, Prof. Emanuele, Florence,	Recreation at School.
340	Barcaglia, Donato, Milan,	Love is Blind.
341	Cambi, Prof. Ulisse, Florence,	Cupid Begging.
342	Bottinelli, Antonio, Rome,	Vanity.
343	Pereda, Milan,	The Orphans.
344	Barzaghi, Francesco, Milan,	The Finding of Moses.
345	Pereda, Raimondo, Milan,	Pretence and Sympathy.
346	Zocchi, Prof. Emilio, Florence,	Bacchus.
347	Monari, Prof. Carlo, Bologna,	Ophelia.
348	Bottinelli, Antonio, Rome,	Bust—Winter.
349	Bottinelli, Antonio, Rome,	Bust—Modesty.
350	Bottinelli, Antonio, Rome,	Summer (bust).
351	Argenti, Giosuè, Milan,	Hope (bust).
352	Bottinelli, Antonio, Rome,	Spring (bust).
353	Bottinelli, Antonio, Rome,	Autumn (bust).
354	Argenti, Giosuè, Milan,	Tamar (bust).

NO.	ARTIST.	TITLE.
355	Formis, Cav. Achille, Milan,	A Lunch.
356	Lelli, Giovanni Batt., Milan,	The Sesia River at Monte Rosa.
357	Di Chierico, ——, Naples,	Buoso da Duero, the Betrayer of King Manfred of Sicily, dying from Starvation at the Door of a Convent.
358	Picchi, Andrea, Florence,	Four pictures (with ebony frame, inlaid with stones—style sixteenth century).
359	Valaperta, Francesco, Milan,	The Beheading of St. John.
360	Ardi, Bartolomeo, Turin,	The Rest in the Fenestrelles Valley, Piedmont.
361	Lelli, Giovanni Battista, Milan,	Fishermen's Island.
362	Canella, Carlo, Milan,	Piazza San Marco, Venice.
363	Burdin, Margherita, Rome,	Still Life.
364	Burdin, Margherita, Rome,	Still Life.
365	Accarisi, Lodovico, Florence,	A Pilgrim.
366	Accarisi, Lodovico, Florence,	A Pilgrim.
367	Accarisi, Lodovico, Florence,	Monk and Farmer.
368	Sasso, Antonio, & Son, Florence,	Titian's Flora (copy).
369	Sasso, Antonio, & Son, Florence,	Beatrice Cenci.
370	Sasso, Antonio, & Son, Florence,	Madonna on the Throne (copy).
371	Sasso, Antonio, & Son, Florence,	Holy Family (copy).
372	Sasso, Antonio, & Son, Florence,	Carlo Dolci's Magdalene (copy).
373	Accarisi, Lodovico, Florence,	Girl Bathing.
374	Accarisi, Lodovico, Florence,	Madame Vigée le Brun (copy).
375	Accarisi, Lodovico, Florence,	Rembrandt (copy).
376	Accarisi, Lodovico, Florence,	A Sweet Look.
377	Accarisi, Lodovico, Florence,	Titian's Bella (copy).
378	Sasso, Antonio, & Son, Florence,	Salvator Rosa's celebrated marine view (copy).
379	Sasso, Antonio, & Son, Florence,	Landscape.
380	Sasso, Antonio, & Son, Florence,	Saint John in the Presence of Herod.
381	Marucelli, Pietro, Milan,	View near Naples.
382	Sasso, Antonio, & Son, Florence,	Raphael's Madonna.
383	Sasso, Antonio, & Son, Florence,	Perugino's Madonna.
384	Accarisi, Lodovico, Florence,	Fruit.
385	Radici, Pasquale, Naples,	A Neapolitan.
386	Romoli, Prof. Luigi, Florence,	Fra Angelico's Angels.
387	Accarisi, Lodovico, Florence,	Neapolitan Family.
388	Accarisi, Lodovico, Florence,	Beatrice Cenci (copy of Guido Reni).
389	Catena, Vincenzio,	Portrait of a Cardinal.
390	Catena, Vincenzio,	A Portrait.
391	Catena, Vincenzio,	A Portrait.
392	Sasso, Antonio, & Son, Florence,	Raphael's Fornarina.
393	Accarisi, Lodovico, Florence,	Volterrano's Sleeping Cupid.
394	Accarisi, Lodovico, Florence,	Vanity (Venetian school).
395	Accarisi, Lodovico, Florence,	Beginning of a Storm.
396	Accarisi, Lodovico, Florence,	Raphael's Madonna (copy).
397	Accarisi, Lodovico, Florence,	A Sweet Look.
398	Accarisi, Lodovico, Florence,	Correggio's Madonna and Child.
399	Accarisi, Lodovico, Florence,	Beginning of a Storm.
400	Accarisi, Lodovico, Florence,	Roman Shepherdess.
401	Accarisi, Lodovico, Florence,	The Thorn.
402	Accarisi, Lodovico, Florence,	Domenichino's Sibylla.
403	Bourdan, Marquinta, Naples,	A Roman Poultry-Dealer.

(Annex, Gallery No. 19.)

NO.	ARTIST.	TITLE.
405	D'Amore, Palermo,	The Night of the 11th of October, 1492.
406	Spertini, Giovanni, Milan,	Love's Messenger.
407	(Unknown),	Boy Gathering Grapes.
408	Barzaghi, Francesco, Milan,	The First Ride.
409	Braga, Enrico, Milan,	A Faun.
410	Zocchi, Prof. Emilio, Florence,	Columbus in his Youth.
411	Barzaghi, Francesco, Milan,	Silvia.

NO.	ARTIST.	TITLE.
412	Braga, Enrico, Milan,	Boy's Playfellow.
413	Braga, Enrico, Milan,	A Mountebank.

(*Memorial Hall, Gallery A.*)

SCULPTURE.

NO.	ARTIST.	TITLE.
414	Buzzi Giberto, Cav. Luigi, Milan,	After School.
415	Pozzi, Egidio, Milan,	The Youth of Michael Angelo.
416	Braga, E., Milan,	Modesty.
417	Galli, Rizzardo, Milan,	Beggars.
418	Buzzi Giberto, Cav. Luigi, Milan,	First Sensation of Love.
419	Buzzi Giberto, Cav. Luigi, Milan,	A Riddle.
420	(Unknown),	The Florist.
421	Cannone & Gargiulo, Naples,	Venus (bronze).
422	Tempra, Quirino, Milan,	The Little Teacher.
423	Dal Negro, Pietro, Milan,	Cain and Abel.
424	Albacini, Achille, Rome,	Roman Costume.
425	Tantardini, Cav. A., Milan,	The First Sorrow.
426	Cocchio, Luigi, Milan,	Spring.
427	Buzzi Giberto, Cav. Luigi, Milan,	The World.
428	Braga, E., Milan,	Peasant Girl (Lombard costume).
429	Zannoni, Cav. Ugo, Milan,	A Wrong Blow.
430	Zannoni, Cav. Ugo, Milan,	Affection and Envy.
431	Gentile, Chieti,	And to-morrow?
432	Zannoni, Cav. Ugo, Milan,	Study and Work.
433	Croff, Giuseppe, Milan,	Odalisque.
434	Romani, Francesco, Milan,	The Coquette.
435	Pandiani, Signora Adelaide Maraini, Milan,	Spring. (In the Women's Pavilion.)
436	Guarnerio, Pietro, Milan,	Aruns in the act of shooting the Virgin Camilla. (Virgil, Æneid, book xi.)
437	Guarnerio, Pietro, Milan,	George Washington (model expressly executed for the Centennial Exhibition).
438	Villa, J. G., Milan,	Simplicity.
439	(Unknown),	The Reader.
440	Braga, E., Milan,	Bashfulness.
441	Buzzi Giberto, Cav. Luigi, Milan,	Dante.
442	Biganzoli, Filippo, Milan,	Alessandro Manzoni (Italian poet and novelist).
443	Galli, Rizzardo, Milan,	Resignation.
444	Galli, Rizzardo, Milan,	"Shall I see him again?"
445	Croff, Giuseppe, Milan,	Ernest and Salamace.
446	Galli, Rizzardo, Milan,	Youthful Amusement.
447	Marai, Luigi, Milan,	A Summer Day.
448	Biganzoli, Filippo, Milan,	Alexander von Humboldt.
449	(Unknown),	Garibaldi.
450	Fumei, Pietro, Milan,	Meditation.
451	Galli, Rizzardo, Milan,	A Veiled Girl.
452	Buoninsegna, Milan,	The Slave.
453	Galli, Rizzardo, Milan,	The Bride.
454	Salomi, Florence,	The Daughter of Zion Weeping over Jerusalem.
455	Rosetti, Antonio, Rome,	The Railway (bronze statue).
456	Rosetti, Antonio, Rome,	A Marble Fountain (Bacchus).
457	Rosetti, Antonio, Rome,	The Telegraph (bronze statue).

(*Gallery N.*)

SCULPTURE.

NO.	ARTIST.	TITLE.
458	Bottinelli, Ant., Rome,	Hope.
459	Matteucci, Luigi, Milan,	Gaping.

NO.	ARTIST.	TITLE.
460	Pessina, Carlo, Messina,	Costume of Marie Stuart.
461	Casetti, Turin,	Devotion.
462	Argenti, Giosuè, Milan,	The Florist.
463	Corbellini, Quintilio, Milan,	Lucio.
464	Zocchi, E., Florence,	Youth of Michael Angelo.
465	Radius, Eugenio, Milan,	Faith
466	Buzzi Giberto, Cav. Luigi, Milan,	Inspiration.
467	Trojani, G. B., Milan,	The Sailor-Boy.
468	Argenti, Giosuè, Milan,	Modesty.
469	Braga, E., Milan,	Wearied with Play.
470	Veneroni, Milan,	Modesty.
471	Braga, E., Milan,	Bashfulness.
472	Trojani, G. B., Milan,	After Recreation.
473	Galli, Rizzardo, Milan,	Columbus.
474	Cambi, Ulisse, Florence,	Eve, with Cain and Abel.
475	Argenti, Giosuè, Milan,	Sleep.
476	Conti, Alessandro, Milan,	Revery.
477	Lucca, Flaminio, Milan,	Modesty.
478	Lucca, Flaminio, Milan,	Candor.
479	Galli, Rizzardo, Milan,	The Little Savoyard.
480	Galli, Rizzardo, Milan,	The Devotee.
481	Calvi, P., Milan,	Michael Angelo.
482	Galli, Rizzardo, Milan,	St. John the Baptist.
483	Galli, Rizzardo, Milan,	Faith.
484	Gallandt, L. A., Rome,	Washington (presented to the Centennial Celebration of American Independence, by the artist).
485	Galli, Rizzardo, Milan,	Hope.
486	Spertini, Giovanni, Milan,	General Garibaldi.
487	Bietta, Angelo, Milan,	The Reader.
488	Ramazzotti, Serafino, Rome,	Rome.
489	Argenti, Antonio, Milan,	Prayer.
490	Argenti, Angelo, Milan,	Devotion.
491	Dies, Emilio, Rome,	Innocence.
492	Spertini, Giovanni, Milan,	Giuseppe Mazzini.
493	Pessina, Carlo, Milan,	Youth.
494	Radius, Eugenio, Milan,	The Afflicted.
495	Pessina, Carlo, Milan,	The Prayer.
496	Tantardini, Prof. Antonio, Milan,	The Pompeiian Woman.
497	Radius, Eugenio, Milan,	"Ecce Homo."
498	Trojani, G. B., Rome,	Sir Isaac Newton.
499	Spertani, Giovanni,	Giuseppe Dassi, Vice-President of the Italian Centennial Commission.
500	Brodzki, Rome,	Veiled Girl.

MOSAIC WORK.

NO.	ARTIST.	TITLE.
501	Roccheggiani, Rome,	Collection of mosaics.
502	Moglia, Augusto, Rome,	Ruins of the Temple of Pæstum, Naples.
503	Moglia, Augusto, Rome,	The same (smaller).
504	Moglia, Augusto, Rome,	The Roman Forum, viewed from the Romagna.
505	Moglia, Augusto, Rome,	The Roman Forum (an antique).
506	Moglia, Augusto, Rome,	The Colosseum.
507	Moglia, Augusto, Rome,	Black antique table, inlaid in rococo style, with nine of the principal views of Rome, the centre piece being a view of the piazza of St. Peter's; surrounding this is a circle of four large views, viz.: The Tomb of Cecilia Metella; The Ponte Lucano, or Lucan Bridge, on the road to Tivoli; The Forum; and the Colosseum. An outer circle consists of four minor views, viz.: Temple of the Sibyl, at Tivoli; Temple of Vesta, at Rome; The Pyramid of Caius Cestius, and the Pantheon—the whole forming a work which took a premium at Rome in 1870.

NO.	ARTIST.	TITLE.
508	Moglia, Augusto, Rome,	Black antique table, carved and inlaid with campanelle (little flowers of the Campagna), birds, butterflies, bees, scrolls, etc.
509	Moglia, Augusto, Rome,	Picture, the Piazza of St. Peter's (took a prize medal at the Roman Exposition, 1870).
510	Moglia, Augusto, Rome,	The Bridge and Castle of St. Angelo (companion picture to No. 509).
511	Moglia, Augusto, Rome,	View of the Fountain of Trevi, Rome.
512	Moglia, Augusto, Rome,	The Campidoglio (companion picture to No. 511).
513	Roccheggiani, Rome,	Collection of mosaics.
514	Roccheggiani, Rome,	Bouquet (in mosaic).
515	Roccheggiani, Rome,	Bouquet (in mosaic).
516	Gallandt, L. A., Rome,	Head of Washington (presented by the artist to the city of Philadelphia).
517	Gallandt, L. A., Rome,	The Forum (in mosaic).
518	Gallandt, L. A. Rome,	Madonna and Child (after Raphael).

THE CASTELLANI ANTIQUITIES.

(*Memorial Hall, Gallery U.*)

EXHIBITOR.	TITLE.	OWNER.
Castellani, A., Rome,	Marbles and Bronzes.	A. Castellani.

(*Memorial Hall, Gallery V.*)

Castellani, A., Rome,	Majolica.	A. Castellani.

(*Memorial Hall, Gallery W.*)

Castellani, A., Rome,	Personal Ornaments.	A. Castellani.

COLLECTION LOANED BY POPE PIUS IX.

(*Memorial Hall, Gallery K.*)

NO.	ARTIST.	TITLE.	OWNER.
1	(Unknown),	Flowers in mosaic.	Pope Pius IX.
2	(Unknown),	Mosaic of a Madonna after Sasso-Ferrato.	Pope Pius IX.
3	(Unknown),	Mosaic of Raphael's Madonna del Seggiola.	Pope Pius IX.
4	(Unknown),	Tapestry — The Martyrdom of St. Agnes.	Pope Pius IX.

The Largest Book Store in the United States. Wholesale and Retail.

J. B. LIPPINCOTT & CO.,

Publishers, Booksellers, Importers, and Stationers,

715 and 717 Market Street, Philadelphia.

☞ Visitors to the Exhibition are invited to inspect the Establishment.

PHILADELPHIA DEMOKRAT,

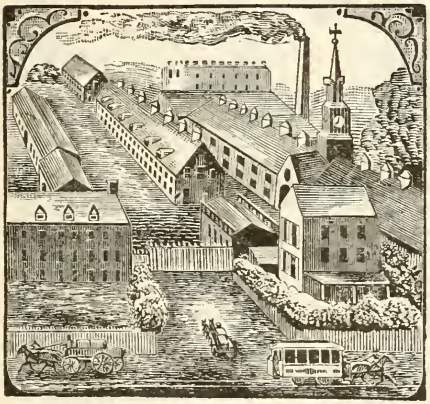
DAILY, WEEKLY, AND SUNDAY,

LARGEST CIRCULATION OF ANY GERMAN PAPER IN PENNSYLVANIA.

PUBLISHED BY

MORWITZ & CO.,

612 and 614 Chestnut Street, Philadelphia.



William Wilkens, H. H. Grane,
Louis Wilkens.

WILLIAM WILKENS & CO.

Manufacturerers of

Steam Curled Hair

AND

Prepared American Bristles.

Importers of and Dealers in

South American Horse Hair
Drawn Weaving and
Brush Hair.

Bristles, Tampico, and other Brush Fibres.

SAUSAGE CASINGS, etc.

AW HOG HAIR FOR EXPORT.

BALTIMORE. NEW YORK.
CHICAGO.

Corner of Belmont and Fountain Avenues,

NEAR THE LAKE.

FRENCH RESTAURANT,

LES TROIS FRÈRES PROVENCAUX.

The same which had such a great success in the Vienna Exhibition, in 1873.

CH. VERDIER,

of the MAISON DORÉE, of Paris, Proprietor.

Near the Lake, opposite the U. S. Government Building.

JOHN G. McGEE & CO.,

BELFAST, IRELAND,

INVENTORS AND SOLE MAKERS OF THE

CELEBRATED "ULSTER" COAT

See SHOW CASE, Class 250, E 27.

THE SUN NEWSPAPER

Is printed and published every day in the year, at 166, 168, and 170 Nassau Street, New York City. Its regular edition on secular days now (April, 1876) averages about **140,000**; its weekly edition over **88,000**; and its Sunday issue is nearly **100,000.** It thus prints and sells more than a million copies a week, which are read all over the United States. This is a circulation unprecedented in American journalism, and it is constantly on the increase. In proof of this, let the following figures testify. They show the number of copies of THE SUN printed every week during the year ending March 11, 1876.

WEEK ENDING		COPIES PRINTED.	WEEK ENDING		COPIES PRINTED.
March	20	849,382	September	18	860,358
	27	845,802		25	858,778
April	3	857,956	October	2	863,935
	10	863,556		9	870,820
	17	855,076		16	878,082
	24	858,270		23	874,625
May	1	869,542		30	876,160
	8	867,550	November	6	908,580
	15	877,450		13	852,372
	22	874,946		20	847,815
	29	866,276		27	836,248
June	5	873,782	December	4	845,378
	12	869,769		11	1,042,716
	19	880,348		18	956,294
	26	883,846		25	933,864
July	3	898,862	January	1	933,987
	10	867,574		8	952,202
	17	877,400		15	953,019
	24	876,282		22	969,911
	31	874,216		29	967,850
August	7	865,558	February	5	993,030
	14	875,982		12	1,024,647
	21	880,488		19	1,027,209
	28	870,502		26	1,014,766
September	4	872,211	March	4	1,014,993
	11	860,755		11	1,028,951
TOTAL		46,799,769			

In printing these papers, no less than three million four hundred and twenty-six thousand six hundred and ten (3,426,610) pounds of paper were consumed.

ADVERTISING RATES.

DAILY AND SUNDAY, 40 cents a line, ordinary advertising; large type, 80 cents; and preferred positions, 50 cents to $2.50, according to classification.

WEEKLY, 50 cents a line; no extra charge for large type. Preferred positions, from 75 cents to $2.00.

SUBSCRIPTION RATES.

DAILY (4 pages), by mail, **55c.** a month, or **$6.50** a year, postpaid; with Sunday edition, **$7.70.**

SUNDAY (8 pages), **$1.20** per year, postpaid.

WEEKLY (8 pages), **$1.20** per year, postpaid.

Address, THE SUN,
New York.

BRAZIL.

(*Annex, Gallery No. 27.*)

SCULPTURE.

NO.	ARTIST.	TITLE.
1	Bernardelli, Rio de Janeiro,	Recollection of the Tribe (plaster).

(*Annex, Gallery No. 29.*)

SCULPTURE.

NO.	ARTIST.	TITLE.
2	Chaves, Pinheiro, Rio de Janeiro,	The Actor Joao Gaetano as Oscar (plaster).
3	Bernardelli, Rio de Janeiro,	The Indian Peeping (plaster).
4	Almeida, Reis, Rio de Janeiro,	The Crime (plaster).
5	Almeida, Reis, Rio de Janeiro,	The Bishop of Chrysopolis (plaster).

(*Annex, Gallery No. 29.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
6	Lima, Victor Meirelles de, Rio de Janeiro,	The Naval Battle of Riachuelo (Paraguayan War).
7	Lima, Victor Meirelles de, Rio de Janeiro,	The Brazilian Iron-clad Fleet passing by Humaita (Paraguayan War.)
8	Lima, Victor Meirelles de, Rio de Janeiro,	The First Mass in Brazil.
9	Figueredo, Pedro Americo de, Rio de Janeiro,	Brazilian Army crossing Passo da Patria, led by Marshal Ozario (Paraguayan War).
10	Figueredo, Pedro Americo de, Rio de Janeiro,	Defence of the Island of Cabrita (Paraguayan War).
11	Henschell, Rio de Janeiro,	Portrait of the Emperor of Brazil.
12	De Martino, Rio de Janeiro,	Moonlight in the Harbor of Montevideo.
13	(Unknown),	View of St. Peter's Cathedral in Rome Exhibited by the Academy of Fine Arts, Rio de Janeiro.
14	(Unknown),	Charity. Exhibited by the Academy of Fine Arts, Rio de Janeiro.
15	(Unknown),	Sunset on the Sea-Shore. Exhibited by H.R.H. the Count d'Eu.

(*Annex, Gallery No. 29.*)

WATER COLORS.

NO.	ARTIST.	TITLE.
16	Pacheco, I. Insley, Rio de Janeiro,	Three paintings, representing views of the interior of Brazil.
17	Pacheco, I. Insley, Rio de Janeiro,	Aquarelles, representing views of the interior of Brazil.
18	Rocha, Antonio da, Rio de Janeiro,	The Holy Mother (after Guido Reni).

(*Annex, Gallery No. 27.*)

LITHOGRAPHS, CRAYONS, ETC.

NO.	ARTIST.	TITLE.
19	Almeida, Marianno de, Rio de Janeiro,	Sketches with pen and ink.
20	Pacheco, I. Insley, Rio de Janeiro,	Two landscapes (crayons).
21	Leutzinger & Sons, Rio de Janeiro,	Photo-lithographs, representing panoramas of the Bay of Rio de Janeiro.
22	Damasceno, J. dos Passos, Rio de Janeiro,	Pen-and-ink drawing—Dom Pedro II

ARGENTINE REPUBLIC.

(*Annex, Gallery No. 27.*)

[Works of Art marked with an asterisk (*) are for sale. For information apply at the Office of the Argentine Republic, Main Building.]

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
1	Petrazzini, Buenos Ayres,	*Fruit.
2	Gattinoni, Carlos, Buenos Ayres,	*Child's Head.
3	Gattinoni, Carlos, Buenos Ayres,	*Old Man's Head.
4	Marroig, G., Entre Rios,	*At the Fountain.
5	Diaz, Josefa, Santa Fé,	*Argentine Gaucho.
6	Castillo, B. del, Buenos Ayres,	*Peace.
7	Boneo, M. L., Buenos Ayres,	Native Scene.
8	Diaz, Josefa, Santa Fé,	*The Chaco Indian.
9	Charton, E., Buenos Ayres,	Valparaiso, Chili.
10	Gattinoni, Carlos, Buenos Ayres,	*Rustic Court.
11	Gattinoni, Carlos, Buenos Ayres,	*A Difficult Answer.
12	Charton, E., Buenos Ayres,	Chilian Farmer.
13	Diaz, Josefa, Santa Fé,	*Fruit.
14	Charton, E., Buenos Ayres,	View of Santiago, Chili.
15	Boneo, M. L., Buenos Ayres,	Native Scene.
16	Pasquinelli, A., Santa Fé,	*The Watering-Place.
17	Marroig, G., Entre Rios,	*The Beggar Monk.
18	Gattinoni, Carlos, Buenos Ayres,	*Giovanni Boccacoio visiting Beatrice Alighieri, daughter of Dante, in the Monastery of Ravenna.
19	Barros, Alvaro, Buenos Ayres,	The Murder of Dr. Varela.
20	Chiama, Epaminonda, Buenos Ayres,	*At the Camp Store.
21	Charton, E., Buenos Ayres,	City and Harbor of Panama
22	Charton, E., Buenos Ayres,	General View of Guayaquil.
23	Boneo, M. L., Buenos Ayres,	Native Scene.
24	Castillo, B. del, Buenos Ayres,	*Fruit and Flowers.
25	Gattinoni, Carlos, Buenos Ayres,	*Boy after a Bath.
26	Boneo, M. L., Buenos Ayres,	Native Scene.
27	Castillo, B. del, Buenos Ayres,	*Burning of the Steam-Packet America on her Voyage from Buenos Ayres to Montevideo.
28	Diaz, Josefa, Santa Fé,	*Black Servant.
29	Charton, E., Buenos Ayres,	Public Square in Córdoba.
30	Muratory, José, Buenos Ayres,	Naval Battle.
31	Muratory, José, Buenos Ayres,	Naval Battle.
32	Muratory, José, Buenos Ayres,	Naval Battle.
33	Muratory, José, Buenos Ayres,	Naval Battle.
34	Calzadilla, S., Santiago,	*The Washerwoman going to her Work.

MEXICO.

[Information concerning the sale of Works of Art may be obtained at the office of the Mexican Commission, Main Building.]

(*Annex, Gallery No. 9.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.	OWNER.
1	Sagredo, Ramon,	The Castle of Emaus.	The National Academy.
2	Hernandez, Ignacio,	Portrait of Mina, one of the heroes of Mexican Independence.	The National Academy.
3	Ramirez, Joaquin,	Portrait of Hidalgo, father of Mexican Independence.	The National Academy.
4	Pina, Salomé,	Saint Charles.	The National Academy.
5	Ramirez, Joaquin,	Noah's Ark.	The National Academy.
6	Monroy, Felix,	The Death of Atala.	The National Academy.
7	Velasco, José Maria,	The Valley of Mexico.	Artist.
8	Figueroa, Gregorio,	The Death of Abel.	The National Academy.
9	Velasco, José Maria,	Wood of Chapultepec.	The National Academy.
10	Jimenez, José,	Interior of the Convent of Loreto, City of Mexico.	The National Academy.
11	Rebull, Santiago,	The Death of Marat.	Artist.
12	Flores, Rafael,	Dante.	The National Academy.
13	Dumaine, Gregorio,	The Road of Chapultepec.	The National Academy.
14	Gargollo, Julio,	The Morning Paper.	Artist.
15	Coto, Luis,	The Town of Guadalupe Hidalgo.	The National Academy.
16	Gonzalez, J.,	Evil Presentiments.	The National Academy.
17	Cordero, Juan,	Columbus before the Court of Ferdinand and Isabella.	The National Academy.
18	Ocaranza, Manuel,	The Withered Flower.	The National Academy.
19	Manchola, Juan,	Saint Peter Restoring a Child.	The National Academy.
20	Obregon, José,	Giotto and Cimabue.	The National Academy.
21	Clavé, Pelegrin,	Isabel of Portugal.	The National Academy.
22	Cordero, Juan,	The Family of the Artist Cordero.	Artist.
23	Gutierrez, Felipe,	Saint Sebastian.	The National Academy.
24	Parra, Felix,	Galileo.	The National Academy.
25	Vega, Federico de la,	The Fall of Satan.	The National Academy.
26	Gutierrez, Rodrigo,	The Fisher-Boy	The National Academy.
27	Ferrando, Salvador,	Jacob Anointing a Rock.	The National Academy.
29	Montenegro, Guadalupe,	The Young Sketcher.	The National Academy.
30	Escudero y Espronceda, José,	Portrait of Benito Juarez, late President of Mexico.	Artist.
43	Enriquez, Nicolas,	Apparition of the Holy Virgin—seventeenth century.	The National Academy.
44	Villalpando, Carlos de,	Interior of the Convent of Bethlemitas—seventeenth century.	The National Academy.
45	Caballero, N.,	Holy Spring in Guadaloupe—seventeenth century.	The National Academy.
46	Castro, José Antonio,	Spain (allegorical painting).	The National Academy.
47	Paez, José,	Saint Rosalia.	The National Academy.
48	Rodriguez, Antonio,	Saint Thomas of Villanueva.	The National Academy.
49	Correa, Nicolas,	Saint Catalina of Senna—seventeenth century.	The National Academy.
50	Lopez de Herrara,	The Crucifixion—seventeenth century.	The National Academy.

NO.	ARTIST.	TITLE.	OWNER.
51	Rodriguez, Juarez Juan,	San Juan de Dios — seventeenth century.	The National Academy.
52	Rodriguez, Nicolas,	Saint Gertrude — seventeenth century.	The National Academy.
53	Vazquez,	Assumption of the Virgin Mary — sixteenth century.	The National Academy.
54	Ibarra, José,	Scenes in the Life of the Virgin Mary — seventeenth century.	The National Academy
55	Vazquez, Ignacio,	Death of Goliath.	The National Academy.
56	Vega, Joaquin de la,	Portrait — Professor Carcanio — seventeenth century.	The National Academy.
57	Alcibar, José,	Portrait — Don Manuel Justo Bolea Sanchez	The National Academy.

STATUARY.

NO.	ARTIST.	TITLE.	OWNER.
58	Dumaine,	The Orphans (plaster).	
59	Fernandez, J.,	A figure (plaster).	
60	Guerra, Gabriel,	A Fisherman (plaster).	
61	Sojo,	Mercury and Argos (plaster).	
62	Fernandez, J.,	A Calf (plaster).	

(Annex, Gallery No. 29.)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.	OWNER.
28	Rebull, Santiago,	Abraham.	The National Academy
33	De Mayora, Mrs. Guadalupe C.,	The Prayer.	Artist.
34	De Mayora, Mrs. Guadalupe C.,	Savoyard Beggar-Boy.	Artist.
35	De Mayora, Mrs. Guadalupe C.,	Fruit.	Artist.
36	De Mayora, Mrs. Guadalupe C.,	Fruit.	Artist.
37	De Mayora, Mrs. Guadalupe C.,	A Page.	Artist.
38	De Mayora, Mrs. Guadalupe C.,	The Madonna (after Murillo).	Artist.
39	De Mayora, Mrs. Guadalupe C.,	Portrait — Rembrandt.	Artist.
40	Morlete, Patricio José,	San Luis Gonzaga	The National Academy

PENNSYLVANIA RAILROAD

THE celebrity attained by the scenic and historic attractions along the Main Line and various branches of this Railroad, has led to the publication, by the Company, of a volume entitled

THE PENNSYLVANIA RAILROAD,

HISTORICAL AND DESCRIPTIVE,

Embracing Historical, Descriptive, and Statistical Notices of Cities, Towns, Villages, Stations, Industries, and objects of Interest on its various Lines in Pennsylvania and New Jersey.

This book contains two Steel-plate Portraits and one hundred and nine Wood Engravings, executed in the highest style from original designs by eminent artists.

The design of the work is to faithfully portray the origin, progress, and present condition of the PENNSYLVANIA RAILROAD, and to give such information of a historical, personal, and statistical character as will interest travelers and the general public.

The book contains three hundred pages, is printed in large, clear type, on heavy, tinted paper, and will compare favorably with any emanation from the American press. It is now for sale on all trains and at all principal ticket stations on the Pennsylvania Railroad and Branches, and at the book stores of J. B. LIPPINCOTT & Co. and PORTER & COATES, Philadelphia.

VISITORS TO THE CENTENNIAL EXHIBITION

Will find this volume an interesting and valuable souvenir of Philadelphia and the great route connecting the East and West, as every station between, and including, New York and Pittsburg is illustrated and described in it.

THE

American Newspaper Union.

A. J. AIKENS, President.

New York Newspaper Union, 148 and 150 Worth St., New York.	315	Newspapers,	$3.00	per line,	per week.
Chicago Newspaper Union, 114 Monroe St., Chicago.	350	"	$3.50	"	"
Milwaukee Newspaper Union, 365 East Water St., Milwaukee.	120	"	$1.25	"	"
Aikens Newspaper Union, 143 Race St., Cincinnati.	200	"	$2.00	"	"
Southern Newspaper Union, 227 Second St., Memphis, Tenn.	145	"	$1.50	"	"
St. Paul Newspaper Union, 17 Wabashaw St., St. Paul, Minn.	73	"	$ .75	"	"

THE ORIGIN OF CO-OPERATIVE NEWSPAPER ADVERTISING.

Co-operative newspaper printing, as now practised, originated in Wisconsin twelve years ago. It is termed *co-operative* for the reason that one side of each of the newspapers is printed at a central office, and the paper sent in its half-printed state to the home office, where it is completed with editorials, local news, and other matter prepared by the editor or publisher. In December, 1846, the idea of co-operation, *with advertisements*, occurred to Mr. Aikens, while yet serving his time as an apprentice, in printing the message of President Polk on one side of a country newspaper of New England at Boston, and the other half being printed at the local office.

Mr. A. J. Aikens, a practical printer and business man, conceived the idea of reducing the cost of ready-printed paper, as it is now termed, to country publishers, by making an agreement with them to use a certain space in each of their papers for advertisements that he might procure. This plan of co-operation he put into practice twelve years ago, at the office of Cramer, Aikens & Cramer, Milwaukee. It at once became successful, leading to the establishment of co-operative newspaper printing-offices in Chicago, New York, St. Louis, Cincinnati, Memphis, St. Paul, and other places. There are now over two thousand newspapers printed upon the co-operative plan in the United States and Canadas, and the number is constantly increasing, it having more than doubled in the last five years. The enterprise is no longer an experiment, but an established success, and the system is one yielding manifold advantages to advertisers as well as to local publishers.

The American Newspaper Union

Is essentially national. The papers represented in it are located in all the States of the Union and in nearly five hundred county seats. They circulate over the whole area of the country from Maine to Colorado, distributing at least *one hundred copies every year to each square mile of the settled portions of the United States.*

Although, as a whole, the Union List is national, covering all sections, it is so made up of different members as to be susceptible of easy division into sections—East, Middle, West, South. The distribution of the papers is as follows:

New England	78	Illinois	117	Nebraska	15
New York	101	Michigan	86	Missouri	17
New Jersey	27	Wisconsin	98	Georgia	10
Pennsylvania	65	Tennessee	29	Alabama	32
Virginia	24	Kentucky	29	Louisiana	11
No. and So. Carolina	24	Minnesota	79	Mississippi	29
Ohio	122	Iowa	85	Other States	46
Indiana	81				

AGGREGATE CIRCULATION.

The circulation of these papers is large and constantly increasing. It is larger than the circulation of any other lists or combinations of country papers in the United States—the last aggregate weekly circulation being *seven hundred thousand seven hundred and thirty copies* (700,730).

SEND TO EITHER OFFICE FOR A CIRCULAR.

SPAIN.

[For information regarding the sale of Works of Art, apply at the office of the Spanish Commission, Main Building.]

(*Memorial Hall, Gallery H.*)

SCULPTURE.

NO.	ARTIST.	TITLE.	OWNER.
3*b*	Nobas, Rosendo, Barcelona,	The Wounded Bull-Fighter (plaster).	Artist.
8	Talarn, Domingo, Barcelona,	Massacre of the Innocents (terra-cotta).	Artist.

(*Memorial Hall, Gallery H.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.	OWNER.
28*d*	Miravent y Gatell, José, Barcelona,	Flowers.	Artist.
40*a*	Navarrete, R.,	Choir of Capuchin Monks.	Museum of Fine Arts, Madrid.
40*b*	Fierros, D.,	Fountain in Galicia.	Museum of Fine Arts, Madrid.
40*c*	Agrassot, I.,	The Two Friends.	Museum of Fine Arts, Madrid.
40*d*	Maureta, G.,	Torquato Tasso retiring to the Monastery of San Onofre.	Museum of Fine Arts, Madrid.
40*e*	Muñoz, Degrain A.,	The Prayer.	Museum of Fine Arts, Madrid.
40*f*	Gonzalvo, P.,	The House of La Infanta at Saragossa.	Museum of Fine Arts, Madrid.
40*g*	Puebla, D.,	The Landing of Columbus.	Museum of Fine Arts, Madrid.
40*h*	Domingo, F.,	A Duel in the Seventeenth Century.	Museum of Fine Arts, Madrid.
40*i*	Cano, E.,	Christopher Columbus in the Monastery of La Rabida.	Museum of Fine Arts, Madrid.
40*j*	Castellano, M.,	Death of the Count of Villamediana.	Museum of Fine Arts, Madrid.
40*l*	Vera, A.,	Burial of San Lorenzo at Rome.	Museum of Fine Arts, Madrid.
40*m*	Casado, I.,	Last Moments of Don Fernando IV., el Emplazado.	Museum of Fine Arts, Madrid.
40*n*	Vallés, L.,	Insanity of Donna Juana de Castilla.	Museum of Fine Arts, Madrid.
40*o*	Mercadé, B.,	Translation of Saint Francis of Assisi.	Museum of Fine Arts, Madrid.
41*a*	Häes, D. Carlos, Madrid,	Suburbs of Madrid.	Artist.
41*b*	Häes, D. Carlos, Madrid,	Reminiscences of the Pyrenees.	Artist.
42*a*	Morales, Divino,	The Nazarene.	Moreno y Galindo, Tomas, Madrid.
42*b*	(Unknown),	Saint Bruno.	Moreno y Galindo, Tomas, Madrid.
42*c*	Cano, Alonzo,	The Trinity.	Moreno y Galindo, Tomas, Madrid.
42*d*	Murillo, Bartolomé Esteban,	Christ.	Moreno y Galindo, Tomas, Madrid.

NO.	ARTIST.	TITLE.	OWNER.
42*e*	Morales, Divino,	Madonna and Child.	Moreno y Galindo, Tomas, Madrid.
42*f*	(Unknown),	Triptych on Wood.	Moreno y Galindo, Tomas, Madrid.
43*e*	Lucas, E.,	Auto-da-Fé.	Lopez Martinez, Miguel, Madrid.
43*i*	Lucas, E.,	Saint Joseph.	Lopez Martinez, Miguel, Madrid.
44*a*	Gonzalvo, Perez Pablo, Madrid,	La Seo, Cathedral of Saragossa.	Artist.
44*b*	Gonzalvo, Perez Pablo, Madrid,	Chapel and Mausoleum of King Ferdinand and Queen Isabella, called "the Catholic," in the Cathedral of Granada.	Artist.
44*c*	Gonzalvo, Perez Pablo, Madrid,	Chapel in the Cathedral of Avila.	Artist.
44*d*	Gonzalvo, Perez Pablo, Madrid,	Sacristy in the Cathedral of Avila.	Artist.
44*e*	Gonzalvo, Perez Pablo, Madrid,	Basilica of San Vicente at Avila.	Artist.
45	Rivera,	Saint Jerome.	Huelbes y Temprado, Joaquim, Madrid.
46	Ruiz de Valdivia, Nicolas, Madrid,	Aragonese Serenade.	Artist.
49*a*	Mélida, Enrique, Madrid,	Hall in Godoy's Palace.	Artist.
49*b*	Mélida, Enrique, Madrid,	The Lovers' Grove.	Artist.
50*a*	Jordan, Lucas,	David's Victory over Goliath.	Monreal y Garcia, Agustin, Madrid.
50*b*	Jordan, Lucas,	Jesus Appearing to Mary Magdalene.	Monreal y Garcia, Agustin, Madrid.
50*f*	(Unknown),	The Holy Mother and Child (on wood—fifteenth century).	Monreal y Garcia, Agustin, Madrid.
51	Gisbert, A.,	Landing of the Puritans in America.	Salamanca, Sr. Marqués de, Madrid.
52	Llanos y Keats, Juan, Madrid,	Throne Room in the Royal Palace, Madrid.	Artist.
54*c*	Jover, Francisco, Madrid,	A Capuchin Monk before the Roman Conclave.	Artist.
59*c*	Piñera, Juan de, Seville,	Andalusian Girl with Fan and Mantilla.	Artist.
62*a*	Alvarez y Espino, Gonzalo, Seville,	An Annual Fair attended only by Men.	Artist.
64	Cabral y Vejarano, Manuel, Seville,	A Water-Seller of the Alameda, in Seville.	Artist.
204	Velazquez,	Portrait.	Mazuel, Countess Antonia du.

(*Annex, Gallery No. 31.*)

STATUARY, CARVINGS, ETC.

NO.	ARTIST.	TITLE.	OWNER.
1	Suñol, G.,	Dante (bronze).	Provincial Deputation of Barcelona.
2*a*	Magin Fita y Rovira, Barcelona,	A Valencian Woman (terra-cotta).	Artist.
2*b*	Magin Fita y Rovira, Barcelona,	A Guipuzcoan Woman (terra-cotta).	Artist.
3*a*	Nobas, Rosendo, Barcelona,	Portrait of M. Fortuny (plaster).	Artist.
3*c*	Nobas, Rosendo, Barcelona,	Miguel de Cervantes (plaster).	Artist.
4*a*	Pagès y Casamitjana, Eduardo, Barcelona,	A Fashionable Lady (marble).	Artist.
4*b*	Pagès y Casamitjana, Eduardo, Barcelona,	Catalonians (five statues).	Artist.

NO.	ARTIST.	TITLE.	OWNER.
5	Pagés y Serratosa, Francisco, Barcelona,	Romans (two statuettes, terra-cotta).	Artist.
6	Elias y Mascaró, Ramon, Barcelona,	Last Moments of Lincoln.	Artist.
7	Roca, hermanos, Barcelona,	Bronze bust.	Artist.
10	Fuentes, Xavier, Madrid,	Four cups, old Roman epoch; five cups, eighteenth century; three statuettes in clay; a pitcher and a plate.	Artist.
11	Tovar, Manuel, Seville,	Two Arabian models of the Alcázar, in Seville.	Artist.
12*a*	Peñas y Leon, Antonio de las, Seville,	A Bull-Fighter (terra-cotta).	Artist.
12*b*	Peñas y Leon, Antonio de las, Seville,	A Gipsy (terra-cotta).	Artist.
13	Soria Ferrando, Ricardo, Valencia,	Rivera (terra-cotta).	Artist.
14*a*	Santigosa, Francisco, Valencia,	Tragedy (plaster).	Artist.
14*b*	Santigosa, Francisco, Valencia,	Two statuettes (terra-cotta).	Artist.
19	Molinero, Antonio, Madrid,	An engraved piece of marble.	Artist.
20	Arzadun, Julian de, Villagarcia, Province of Pontevedra,	Bas-reliefs (in mother-of-pearl).	Artist.
23	Subirat, Ramon, Madrid,	Christ (wood, life size).	Artist.
24	Gomez, Gumersindo, Seville,	The Conception (wood).	Artist.
25	Garamendi, Bernabé de, Bilboa,	Christ (ivory).	Artist.
26	Albazzi, José, Havana, Cuba,	Christopher Columbus (bas-relief).	Artist.

(*Annex, Gallery No. 31.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.	OWNER.
27	Benavent, Cayetano, Barcelona,	Moonlight on the Sea.	Artist.
28*a*	Miravent y Gatell, José, Barcelona,	Grapes.	Artist.
28*b*	Miravent y Gatell, José, Barcelona,	Grapes.	Artist.
28*c*	Miravent y Gatell, José, Barcelona,	Grapes.	Artist.
29*a*	Rabada y Vallve, Juan, Barcelona,	Banks of the River Ter.	Artist.
29*b*	Rabada y Vallve, Juan, Barcelona,	Banks of the River Llobregat.	Artist.
30*a*	Arrau, Viuda de, Barcelona,	Fruits.	Artist.
30*b*	Arrau, Viuda de, Barcelona,	Fruits.	Artist.
30*c*	Arrau, Viuda de, Barcelona,	Fruits.	Artist.
30*d*	Arrau, Viuda de, Barcelona,	Fruits.	Artist.
30*e*	Arrau, Viuda de, Barcelona,	Fruits.	Artist.
30*f*	Arrau, Viuda de, Barcelona,	Fruits.	Artist.
31	Català, Federico, Barcelona,	Madonna (Virgen del Carmen).	Artist.

NO.	ARTIST.	TITLE.	OWNER.
32	Talarn, Pelegrin, Barcelona,	A Flower-Girl.	Artist.
33*a*	Moragas y Valero, Manuel, Barcelona,	Fortune and the Boy.	Artist.
33*b*	Moragas y Valero, Manuel, Barcelona,	The Topers.	Artist.
33*c*	Moragas y Valero, Manuel, Barcelona,	The Librarian.	Artist.
34	Urgell, Modesto, Barcelona,	The Village Grave-Yard.	Artist.
35	Torrecassaña, Francisco, Barcelona,	Winter Evening.	Artist.
36*a*	Damis y Cortés, Joaquin, Cadiz,	Flowers.	Artist.
36*b*	Damis y Cortés, Joaquin, Cadiz,	Andalusian Customs.	Artist.
37	Rodriguez Valcázar, Ramon, Cadiz,	Christ.	Artist.
38	Wade, Carlos, Cadiz,	Andalusian Customs.	Artist.
39*a*	Villamil, Leopoldo, Lugo,	Dead Hare.	Artist.
39*b*	Villamil, Leopoldo, Lugo,	Hunting-Dogs.	Artist.
39*c*	Villamil, Leopoldo, Lugo,	Head of a Beggar.	Artist.
43*a*	Lucas, E.,	Marina.	Lopez Martinez, Miguel, Madrid.
43*b*	Lucas, E.,	Romería.	Lopez Martinez, Miguel, Madrid.
43*c*	Lucas, E.,	Civil War.	Lopez Martinez, Miguel, Madrid.
43*d*	Lucas, E.,	A Sermon.	Lopez Martinez, Miguel, Madrid.
43*f*	Lucas, E.,	The Eve of Epiphany.	Lopez Martinez, Miguel, Madrid.
43*g*	Lucas, E.,	Saint John (child).	Lopez Martinez, Miguel, Madrid.
43*h*	Lucas, E.,	Holy Family.	Lopez Martinez, Miguel, Madrid.
44*f*	Gonzalvo, Perez Pablo, Madrid,	Basilica of San Vicente, in Avila. Leaning Tower on the Plaza of San Felipe, in Saragossa.	Artist.
47	Sanchez Blanco, Pedro, Madrid,	View of the Sardinero, in Santander.	Artist.
48*a*	Garcia Hispaleto, Manuel, Madrid,	Rosita's Birthday.	Artist.
48*b*	Garcia Hispaleto, Manuel, Madrid,	A Yard in Seville.	Artist
48*c*	Garcia Hispaleto, Manuel, Madrid,	A Girl in Old Spanish Costume.	Artist.
48*d*	Garcia Hispaleto, Manuel, Madrid,	Gallantry.	Artist.
48*e*	Garcia Hispaleto, Manuel, Madrid,	Murcians.	Artist.
48*f*	Garcia Hispaleto, Manuel, Madrid,	A Ball in Andalusia.	Artist.
50*c*	Zurbaran, F.,	Madonna and Sleeping Child.	Monreal y Garcia, Agustin, Madrid.
50*d*	De Blas del Prado,	Saint Francis of Assisi in Meditation.	Monreal y Garcia, Agustin, Madrid.
50*e*	(Unknown),	The Visitation of the Virgin (on wood, fifteenth century).	Monreal y Garcia, Agustin, Madrid.
53*a*	Garcia Valladolid, Isidro G., Madrid,	Girl in Old Spanish Costume.	Artist.

NO.	ARTIST.	TITLE.	OWNER.
53*b*	Garcia Valladolid, Isidro G., Madrid,	Woman.	Artist.
53*c*	Garcia Valladolid, Isidro G., Madrid,	A Peasant Girl.	Artist.
53*d*	Garcia Valladolid, Isidro G., Madrid,	Saint Jerome (after Pereda).	Artist.
53*e*	Garcia Valladolid, Isidro G., Madrid,	A Girl.	Artist.
53*f*	Garcia Valladolid, Isidro G., Madrid,	The Conception (after Murillo).	Artist.
54*a*	Jover, Francisco, Madrid,	Faun playing a Flute.	Artist.
54*b*	Jover, Francisco, Madrid,	Pompeiian Woman at the Bath.	Artist.
55*a*	Aragonès, Señorita Joaquina, Malaga,	Two figures.	Artist.
55*b*	Aragonès, Señorita Joaquina, Malaga,	Grapes and Flowers.	Artist.
55*c*	Aragonès, Señorita Joaquina, Malaga,	Fish.	Artist.
56*a*	Niculoso, Francisco,	Reproduction of oil painting from the centre and chief wall in the chapel of Ferdinand and Isabella "the Catholic," in the Alcázar at Seville. Painted on enameled bricks.	Academy of Fine Arts, Seville.
56*b*	Niculoso, Francisco,	Reproduction of the Saint Jerome in the Monastery of San Isidro del Campo, founded by Guzman el Bueno, near Seville.	Academy of Fine Arts, Seville.
56*c*, *d*	Niculoso, Francisco,	Two Holy Bishops.	Academy of Fine Arts, Seville.
56*e*	Niculoso, Francisco,	Front of the Convent of Santa Paula at Seville, epoch of the two Catholic Regents.	Academy of Fine Arts, Seville.
57	Cortès y Cordero, Eduardo, Seville,	The Secret.	Artist.
58*a*	Valera, José Diaz,	Venus.	Ortiz y Campos, José, Seville.
58*b*	Ortiz, José,	A Capuchin Monk.	Ortiz y Campos, José, Seville.
58*c*	Ortiz, Josè,	Type from the Seventeenth Century.	Ortiz y Campos, José, Seville.
59*a*	Piñera, Juan, Seville,	Gipsy playing on a Pandereta.	Artist.
59*b*	Piñera, Juan, Seville,	Flowers.	Artist.
60*a*	Eder, Federico, Seville,	Packing Oranges in Seville.	Artist.
60*b*	Eder, Federico, Seville,	Andalusian Fair.	Artist.
60*c*	Eder, Federico, Seville,	A Spanish Calesa.	Artist.
60*d*	Eder, Federico, Seville,	Fascination.	Artist.
61	Quesada, A. M. de,	The Madonna del Carmen.	Caballero y Fiallo, Manuel, Seville.
63	Diez, Joaquim, Seville,	Bulls in the Fields.	Artist.
65	Garrido, Señorita Maria de la Soledad, Valencia,	Love's Messenger.	Artist.

NO.	ARTIST.	TITLE.	OWNER.
66	Chartrand, Esteban S., Havana,	Valley of Jumury.	Artist.
67	Argumosa, José, Havana,	Collection of pictures.	Artist.

(*Annex, Gallery No. 31.*)

WATER COLORS AND CRAYON.

NO.	ARTIST.	TITLE.	OWNER.
69	Sanchez, Pedro, Cadiz,	Four water colors.	Artist.
70	Guisasola, Federico, Pontevedra,	Water color.	Artist.
74	Lopez Valdemoro Ortiz de Lazcano, Señorita Ines,	Crayon drawings.	Artist.

OIL PAINTINGS.

NO.	ARTIST.	TITLE.	OWNER.
200	Navarrete, Ricardo, Madrid,	Las Hilanderas ("The Carpet Weavers"—copy after Velazquez).	Artist.
201*a*	(Unknown),	Saint Jerome.	Ochoa, Bernardino, Madrid.
201*b*	(Unknown),	Holy Family.	Ochoa, Bernardino, Madrid.
201*c*	(Unknown),	Virgin and Child.	Ochoa, Bernardino, Madrid.
201*d*, *e*	(Unknown),	Two vases with flowers.	Ochoa, Bernardino, Madrid.
201*f*, *g*	(Unknown),	The Combat.	Ochoa, Bernardino, Madrid.
201*h*, *i*	(Unknown),	Still Life.	Ochoa, Bernardino, Madrid.
201*j*	(Unknown),	Picnic.	Ochoa, Bernardino, Madrid.
201*l*	(Unknown),	Pasturing Bulls.	Ochoa, Bernardino, Madrid.
201*m*	(Unknown),	A Bull's head.	Ochoa, Bernardino, Madrid.
202	Elorriaga, Ramon, New York,	A Portrait (life size).	Artist.
203	Ortiz, D. J. de, New York,	Portrait of the celebrated explorer Stanley.	Artist.

SCULPTURE.

NO.	ARTIST.	TITLE.	OWNER.
250	Jocson, Crispulo, Manilla, Philippine Islands,	A bust (wood).	Artist.
251	Tampinco, Isabello, Manilla,	A bas-relief (wood).	Artist.

OIL PAINTINGS.

NO.	ARTIST.	TITLE.	OWNER.
252-53	Resurecsion, Felix,	Two landscapes.	Academy of Fine Arts, Manilla.
254	Resurecsion, Felix,	A Canoe.	Academy of Fine Arts, Manilla.
255	Resurecsion, Felix,	Woman selling Plants called "Lanzones."	Academy of Fine Arts, Manilla.
256	Resurecsion, Felix,	Fisherman at Sacag.	Academy of Fine Arts, Manilla.
257	Zaragosa, Miguel,	Laundry.	Academy of Fine Arts, Manilla.
258	Zaragosa, Miguel,	Old Policeman.	Academy of Fine Arts, Manilla.
259	Garcia, Regino,	The Laborer.	Academy of Fine Arts, Manilla.
260-65	Villanueva, Esteban,	Natives of Manilla (six paintings).	Academy of Fine Arts, Manilla.
266	Flores, Simon, Manilla,	A Village in the Province of Pampanga.	Artist.

NO.	ARTIST.	TITLE.	OWNER.
267-68	(Unknown),	Two oil paintings.	St. Thomas College, Manilla.
269	(Unknown),	Oil painting.	St. Thomas Museum, Manilla.

MOSAICS.

NO.	ARTIST.	TITLE.	OWNER.
124	Rodriguez, Desiderio, Cienfuegos, Cuba,	Mosaic table.	Artist.

(*Spanish Government Pavilion.*)

COLLECTIVE EXHIBIT.

NO.	ARTIST.	TITLE.	OWNER.
9	Duque, Eugenio, Madrid,	Photographs of statues.	Artist.
15	Sellan, Gregorio, Madrid,	Dies and medals.	Spanish National Mint.
22	Sellan, Gregorio, Madrid,	Old patterns of mint dies.	Spanish National Mint.
68	Bibiloni, José, Barcelona,	India-ink drawings.	Artist.
69	Pupils of the Provincial Academy of Fine Arts, Barcelona,	Drawings.	Provincial Academy of Fine Arts.
72	(Unknown),	Calligraphs.	Provincial Deputation, Cadiz.
73	Gonzales y Montblanc, Modeste, Barcelona,	Lithographs.	Artist.
75	Aramburu, Ricardo, Seville,	Crayon drawings.	Artist.
76	Reynoso, Emilio, Havana,	Calligraphs.	Artist.
77	Gelabert y Hermano, R., Barcelona,	Engravings.	Artist.
78	Lemus, Eugenio, Madrid,	Danae (copper engraving).	Artist.
79	Maura, Bartolomé, Madrid,	Surrender of Breda.	Artist.
80	Martinez, Espinosa, Juan, Madrid,	Etchings.	Artist.
81	Salcedo, Pedro, Morata, Province of Madrid,	Plan of the Escorial Royal Monastery, near Madrid.	Artist.
82	Arnanz, José, Havana,	Stone engravings.	Artist.
83	Vidal y Roger, Andres, Barcelona,	Printed and engraved music.	Artist.
84	Calografia Nacional, Madrid,	Lithographs.	Artist.
85	Sola y Roca, Ramon, Barcelona,	Lithographs.	Artist.
86	Mencha y Rodriguez, Faustino, Logroño,	Lithographs.	Artist.
87	Carderera y Solano, Valentin, Madrid,	Iconography.	Artist.
88	Fortanet, E.,	Books.	Artist
89	Artillery Museum, Madrid,	Collection of engravings of the Royal Artillery Manufactory at Trubia.	Artillery Museum, Madrid.
90	Ariza y Campano, José, Seville,	Typographs.	Artist.
91	Mateu, José Maria, Madrid,	Chromo-lithographs.	Artist.

NO.	ARTIST.	TITLE.	OWNER.
92	Arnanz, José, Havana,	Chromo-lithographs.	Artist.
93	Mariez-Currena, Heriberto, Barcelona,	Photographs.	Artist.
94	Nobas, Narciso, Barcelona,	Photographs.	Artist.
95	Moragas, Manuel Garcia, Province of Barcelona,	Photographs.	Artist.
96	Casiñol de Leopoldo, Xeres de la Frontera,	Helio-chromo.	Artist. Artist.
97	Napoléon é Hijo, A. and I., Barcelona,	Photographs.	
98	Provincial Commission, Lugo,	Monumental photographs.	Provincial Commission.
99	Rodriguez Cortes, César,	Photographs of engravings.	Artist.
100	Spreafico, José, Malaga,	Album, with views of the Monastery La Rabida and the Port of Palos.	Artist.
101	Alviac y Ca., Madrid,	Photographs.	Artist.
102	Julia y Garcia, Eusebio, Madrid,	Photographs.	Artist.
103	Laurent, I., y Ca., Madrid,	Photographs.	Artist.
104	Diaz, Otero, Eduardo, Madrid,	Photographs.	Artist.
105	Casa Nacional de Moneda, Madrid,	Photographs.	Spanish National Mint.
106	Instituto de Segunda Ensenanza, Madrid,	Photographs.	Artist.
107	Sebastiá Vila, Pedro, Seville,	Photographs.	Artist.
108	Rodriguez, Antonio, Seville,	Photographs.	Artist.
109	Sociedad Económica de Amigos del Pais, Seville,	Photographs.	Artist.
110	Arce, Innocencio, Barcelona,	Photo-lithographs.	Artist.
111	Almela y Vinet, Francisco, Seville,	Photographs.	Artist.
112	Mestres, O. José, Barcelona,	Architectural monuments.	Artist.
113	Soler, Federico, Barcelona,	Architectural monuments.	Artist.
114	Guastavin, Rafael, Barcelona,	Architectural monuments.	Artist.
115	Garriga y Roca, Miguel, Barcelona,	Architectural monuments.	Artist.
116	Fenas, Ramon, Barcelona,	Architectural monuments.	Artist.
117	Rovira y Rabassa, Antonio, Barcelona,	Architectural monuments.	Artist.
118	Arsenio, Alonso, Madrid,	Architectural monuments.	Artist.
119	Duque, Eugenio, Madrid,	Photographs of architectural monuments.	Artist.
120	Marin Baldo, José, Madrid,	Photographs of architectural monuments.	Artist.
122	Benito, Santiago de, Escorial, Province of Madrid,	Locks.	Artist.
123	Bustamente y Gallo, Madrid,	Mosaic in wood.	Artist.

NO.	ARTIST.	TITLE.	OWNER.
125	Fernandez Cuevas, Pascual, Bribiesca, Province of Burgos,	Three pictures of artificial birds.	Artist.
126*a*	Ruiz, Manuel, Cadiz,	Hair-work.	Artist.
126*b*	Ruiz, Manuel, Cadiz,	Wafer-work.	Artist.
128	Lozano y Villarejo, Mateo, Madrid,	Albums.	Artist.
129	Serrano y Arenas, Havana,	Silk embroideries.	Artist.
130	Comacho de Diaz, Soledad, Havana,	Work made with scissors.	Artist.
271	Museo de San Tomas, Manilla,	Flowers made of leaves of camotecahoy.	Artist.
272	Casas, José, Havana,	Hair-work.	Artist.
273	Ortells, Carlos, Havana,	Hair-work.	Artist.

RUSSIA.

(*Memorial Hall, Gallery M.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
1	Aivazowsky, John, Theodosia, Crimea,	Storm on the Black Sea, near the Crimean coast.
2	Aivazowsky, John, Theodosia, Crimea,	View of Constantinople, from the European shore.
3	Aivazowsky, John, Theodosia, Crimea,	Tartar Women in the Crimea.
4	Aivazowsky, John, Theodosia, Crimea,	After the Storm (Sunset).
5	Aivazowsky, John, Theodosia, Crimea,	Storm in the North Sea.
6	Aivazowsky, John, Theodosia, Crimea,	The Rising Moon, Black Sea.
7	Aivazowsky, John, Theodosia, Crimea,	Shower in the Crimean Mountains.
8	Bogoliooboff, Alexis, Paris,	Ice-Drift on the Neva.
9	Bogoliooboff, Alexis, Paris,	Landscape.
10	Bronnikoff, Theodore, Rome,	Roman Thermal.
11	Frentz, Rodolphus, St. Petersburg,	The Hunter.
12	Gerson, Wojciech, Warsaw,	The Morning Mist.
13	Gerson, Wojciech, Warsaw,	Summer Rain.
14	Gerson, Wojciech, Warsaw,	Knights of the Teutonic Order in Poland, in the Fourteenth Century.
15	Groozinsky, Peter, St. Petersburg,	Russian Team.
16	Horavsky, Apollinarius, St. Petersburg,	Caucasian Landscape—View of the River Arva.
17	Jooravleff, F., St. Petersburg,	The Step-Mother.
18	Jooravleff, F., St. Petersburg,	The Chimney-Sweeper.
19	Klodt, Baron Michael, St. Petersburg,	Birch Forest.
20	Klodt, Baron Michael, St. Petersburg,	Landscape.
21	Klodt, Baron Michael, St. Petersburg,	Landscape.
22	Korzoochin, Alexis, St. Petersburg,	Sunday Tea-Party.
23	Korzoochin, Alexis, St. Petersburg,	Scene in the Wood.
24	Kostrzewski, Francis, Warsaw,	Hunting in Winter.
25	Malyshef, ——, Sergievski-Possad,	Icons (painted images).
26	Miller, Charles, Warsaw,	Hamlet.
27	Miller, Charles, Warsaw,	An Italian Woman.
28	Naoomof, Alexis, St. Petersburg,	A Smoky Cottage.
29	Naoomof, Alexis, St. Petersburg,	Shepherd Boy.
30	Naoomof, Alexis, St. Petersburg,	Orphan Girl.
31	Lemoch, Charles, St. Petersburg,	Orphan Girl.
32	Lemoch, Charles, St. Petersburg,	Peasant Girl Feeding Poultry.
33	Lemoch, Charles, St. Petersburg,	Peasant Girl Making her Toilet.
34	Semiradsky, Henry, Rome,	The Amulet-Seller.
35	Sokoloff, Peter, St. Petersburg,	Russian Team.
36	Zagorsky, Nicolas, St. Petersburg,	Family Scene.
37	Gerimski, Alexander, Warsaw,	A Tavern.
37*a*	Gerimski, Alexander, Warsaw,	A Game at Morro.

NO.	ARTIST.	TITLE.
38	Skirmunt, Simon de, Brindisi, Italy,	A Festival in the Palazzo Colonna, Rome (sixteenth century.
39	Skirmunt, Simon de, Brindisi, Italy,	A Member of the Council of Ten, Venice.
40	Skirmunt, Simon de, Brindisi, Italy,	Reflection.
41	Verestchaghin, Peter, Sestroretzk, near St. Petersburg,	Winter Palace Square.
42	Verestchaghin, Peter, Sestroretzk, near St. Petersburg,	The Alexander Column (Winter Palace Square).
43	Svertchkoff, Nicolas, Zarskoe-Selo, near St. Petersburg,	Carnival Week in the Country.
44	Silvanovitch, Nicolas, St. Petersburg,	The Prisoner.
45	Becker, Adolph, St. Petersburg,	The New-Born.
46	Lindholm, B. A., St. Petersburg,	A Steamer in Floating Ice.
47	Munsterhelm, Magnus, St. Petersburg,	Landscape.
48	Lagorio, Lewis, St. Petersburg,	The Kishaoor Valley, Caucasus.
49	Lagorio, Lewis, St. Petersburg,	Along the Road from Tiflis to Akhaltzik.
50	Skirmund, S. A., St. Petersburg,	A Family Party on the Balcony.
51	Clever, Julius, St. Petersburg,	The First Snow on a Ploughed Field.
52	Orlofsky, Wladimir, St. Petersburg,	Fishermen.
53	Tomashefky-Bontcha, Julius, St. Petersburg,	Scene in Molière's "Tartuffe."
54	Pleshanoff, Paul, St. Petersburg,	An Italian.
55	Eckhorst, B., St. Petersburg,	Landscape.
56	Eckhorst, B., St. Petersburg,	Landscape.
57	Karpoff, ——, St. Petersburg,	Young Girl Sleeping.
58	Krassofsky, Nicolas, St. Petersburg,	Study—a horse.
59	Krassofsky, Nicolas, St. Petersburg,	Study—a horse.
60	Titoff, Andrew, Rastoff, Yaroslaw,	Enameled images (icons).
61	Marozoff, A. B., Moscow,	Portrait of the Emperor of Russia, and images.
62	Racotchi, Sidorsky & Co.,	Images (icons).
63	Salabanoff, D. A., Nijni-Novgorod,	Painted images (imitations of ancient icons).

STATUARY.

NO.	ARTIST.	TITLE.
64	Ryger, Theodore, Warsaw,	Bust of Washington (marble).
65	Ryger, Theodore, Warsaw,	Bust of Dr. Levitoux (plaster of Paris).
66	Zengler, F., Warsaw,	The Mother's First Joy.
67	Zengler, F., Warsaw,	Bashfulness.
68	Zengler, F., Warsaw,	Sophia (Mickieviecz's poem).
69	Goojoff, Nicolas, Borovichi, Novgorod,	Painted figures in terra-cotta, representing national subjects.
71	Ryger, Theodore, Warsaw,	Madonna and child Jesus (marble bas-relief).
72	Zengler, F., Warsaw,	The poet Mickieviecz (bas-relief in marble).

WOOD CARVINGS.

NO.	ARTIST.	TITLE.
74	Bauman, Augustus, Moscow,	Images carved in wood.
75	Decamilly, St. Petersburg,	Ornamental carvings.
78	Tzyroolnikoff, P., Sergievsky-Possad, near Moscow,	Images carved in wood.
79	Kroostasheff, T. S., Sergievsky-Possad, near Moscow,	Images carved in wood.
80	Kooznetzoff, ——, St. Petersburg,	Child's head carved in wood.
81	Riabinin, ——, St. Petersburg,	Portrait.

IVORY CARVINGS.

NO.	ARTIST.	TITLE.
82	Alexieff, A., Vologda,	Carving in ivory.

WATER COLORS.

NO.	ARTIST.	TITLE.
83	Sokoloff, Peter, St. Petersburg,	Water colors.
84	Kostrzewsky, Francis, Warsaw,	The Dear Friend.

(*Memorial Hall, Gallery M.*)

OIL PAINTINGS.

NO.	ARTIST.	TITLE.
85	Bogatsky,	Portrait of Prince Gortchakoff.
86	Groozintsky, P., St. Petersburg,	Welcome Home to the Bride.
87	Groozintsky, P., St. Petersburg,	Gypsy Festivities.
88	Jooravleff, F., St. Petersburg,	Dinner after a Funeral.
89	Jooravleff, F., St. Petersburg,	Take me Down.
90	Jooravleff, F., St. Petersburg,	Blessing the Bride before Marriage; a Russian Custom.
91	Naoomof, A., St. Petersburg,	Fair in Tiflis, Caucasus.

Other Russian Art Exhibits are installed in the Main Building, and enumerated in that volume of the Catalogue.

HEALTH! BEAUTY!!

Strong, Pure, and Rich Blood, Increase of Flesh and Weight, Clear Skin, and Beautiful Complexion secured to all through

DR. RADWAY'S SARSAPARILLIAN RESOLVENT

Every drop of the Sarsaparillian Resolvent communicates through the Blood, Sweat, Urine, and other fluids and juices of the system the vigor of life, for it repairs the wastes of the body with new and sound material. Scrofula, Consumption, Glandular Disease, Ulcers in the Throat, Mouth, Tumors, Nodes in the Glands and other parts of the system, Sore Eyes, Strumous Discharges from the Ears, and the worst forms of Skin Diseases, Eruptions, Fever Sores, Scald Head, Ring Worm, Salt Rheum, Erysipelas, Acne, Black Spots, Worms in the Flesh, Tumors, and all Weakening and Painful Discharges and Night Sweats are within the curative range of this wonder of Modern Chemistry, and a few days' use will prove to any person using it for either of these forms of disease, its potent power to cure them. If the patient, daily becoming reduced by the wastes and decomposition that are continually progressing, succeeds in arresting these wastes, and repairs the same with new material, made from healthy blood, and this the Sarsaparillian will and does secure, a cure is certain; for, when once this remedy commences its work of purification and succeeds in diminishing the loss of wastes, its repairs will be rapid, and every day the patient will feel himself growing better and stronger, the food digesting better, appetite improving, and flesh and weight increasing. Not only does the SARSAPARILLIAN RESOLVENT excel all known remedial agents in the cure of Chronic, Scrofulous, Constitutional, and Skin Diseases, but it is the only positive cure for Kidney, Bladder, and Urinary Diseases, Gravel, Diabetes, Dropsy, Stoppage of Water, Incontinence of Urine, Bright's Disease, Albuminuria, and in all cases where there are brickdust deposits, or the water is thick, cloudy, mixed with substance like the white of an egg, or threads like white silk, or there is a morbid, dark, bilious appearance, and white bonedust deposits, and when there is a pricking, burning sensation when passing water, and pain in the Small of the Back along the Loins.

Tumor of 12 years' growth cured by Radway's Resolvent.

BEVERLY, MASS., July 18th, 1869.

DR. RADWAY: I have had Ovarian Tumor in the ovaries and bowels. All the doctors said "*there was no help for it.*" I tried everything that was recommended, but nothing helped me. I saw your Resolvent, and thought I would try it, but *had no faith* in it, because I had suffered for TWELVE YEARS. I took *six bottles of the Resolvent*, one box of Radway's Pills, and used two bottles of your READY RELIEF, and there is not a sign of a tumor to be *seen or felt*, and I feel BETTER, SMARTER, and happier than I have for twelve years. The worst tumor was in the left side of the bowels, over the groin. I write this to you for the benefit of others. You can publish if you choose. * * * * HANNAH P. KNAPP.

R. R. R.

RADWAY'S READY RELIEF

Cures the worst pains in from one to twenty minutes. Not one hour after reading this advertisement need any one suffer with pain. Radway's Ready Relief is a cure for every pain. It was the first and is *THE ONLY PAIN REMEDY* that instantly stops the most excruciating pains, allays Inflammations, and cures Congestions, whether of the Lungs, Stomach, Bowels, or other glands or organs, by one application, *in from one to twenty minutes.* No matter how violent or excruciating the pain the Rheumatic, Bedridden, Infirm, Crippled, Nervous, Neuralgic, or prostrated with disease may suffer,

RADWAY'S READY RELIEF

Will afford instant ease. Inflammation of the Kidneys, Inflammation of the Bladder, Inflammation of the Bowels, Congestion of the Lungs, Sore Throat, Difficult Breathing, Palpitation of the Heart, Hysterics, Croup, Diphtheria, Catarrh, Influenza, Headache, Toothache, Neuralgia, Rheumatism, Cold Chills, Ague Chills. The application of the READY RELIEF to the part or parts where the pain or difficulty exists will afford ease and comfort. Twenty drops in a half tumbler of water will, in a few moments, cure Cramps, Spasms, Sour Stomach, Heartburn, Sick Headache, Diarrhœa, Dysentery, Colic, Wind in the Bowels, and all Internal Pains. Travelers should always carry a bottle of RADWAY'S RELIEF with them. A few drops in water will prevent sickness or pains from change of water. It is better than French Brandy or Bitters as a stimulant.

FEVER AND AGUE.

FEVER AND AGUE cured for FIFTY CENTS. There is not a remedial agent in this world that will cure Fever and Ague and all other Malarious, Bilious, Scarlet, Typhoid, Yellow, and other Fevers (aided by RADWAY'S PILLS) as quick as RADWAY'S READY RELIEF. Fifty cents per bottle.

DR. RADWAY'S PILLS,

Perfectly tasteless, elegantly coated, for the cure of all Disorders of the Stomach, Liver, Bowels, Kidneys, Bladder, Nervous Diseases, Headache, Constipation, Costiveness, Indigestion, Dyspepsia, Biliousness, Bilious Fever, Inflammation of the Bowels, Piles, and all Derangements of the Internal Viscera. Warranted to effect a Positive Cure. RADWAY'S PILLS will free the system from all the above-named disorders. Price, 25 cents per box.

Read FALSE AND TRUE. Send one letter stamp to RADWAY & Co., No. 32 Warren Street, New York. Information worth thousands will be sent you.


LONGACRE&Co
OFFICE S.W.CO.
BIRDS PLACE
OF LIBERTY
LONGACRE&Co
PHILADA

PHOTOGRAPHY.

No. 104.—PHOTORGAPHIC EXHIBITION BUILDING.

Architect, H. J. SCHWARZMANN.—Size, 242 by 77 feet.

Situated on the Avenue of the Republic, north of the Main Building, and east of Memorial Hall. It is a one-story building, containing a single large chamber, with screens projecting from the side walls and forming alcoves for exhibition purposes.

NO.	ARTIST.	TITLE.	LOCATION.
1	Kurtz, W., New York,	Photographs, in pastel, oil, and crayon.	Screen 1, W.
2	Benerman & Wilson,	Photographic transparencies for magic lanterns.	Window, alcove 13.
3	Wenderoth & Co., Philadelphia,	Plain and colored photographs.	Screen 1, E.
4	Brady, W. B., Washington,	Photographs, plain and India ink.	Alcove 2, wall.
5	Alman & Co., New York,	Photographs, plain and colored, in pastel, oil, and India ink.	Screen 2, W.
6	Anthony, E. & H. T., & Co., New York,	Magic lanterns and graphoscopes.	Main avenue.
7	Burrell, D. T., Brockton, Mass.,	Plain photographs.	Screen 2, S.
8	Sibley & Co., L. D., Vineland, N.J.,	Stereoscopic albums.	Alcove 3.
9	Robbins, F., Oil City, Pa.,	Photographer's dark tent.	Alcove 15, S.E.
10	Hazzard, W. B., Philadelphia,	Shade rollers.	Alcove 1.
11	Wilson, J. J., New York,	Improved magic lantern.	Alcove 3.
12	Bierstadt, Ch., Niagara Falls, N.Y.,	Stereoscopic views.	Screen 2, E.
13	Delamater, R. S., Hartford, Conn.,	Photographs, collections of.	Screen 3, W.
14	Waller & Schrader, Brooklyn, N.Y.,	Photographic views.	Screen 3, W.
15	Cremer, James, Philadelphia,	Improved metallic graphoscopes.	Main avenue.
16	Watkins, E. C., San Francisco,	Photographic views, California.	Screen 3, E.
17	Cox, W. A., Baltimore,	Porcelain miniatures.	Screen 4, W.
18	Edgar, Lydia, Philadelphia,	Photographs in crayon.	Screen 4, W.
19	Weston, N., San Francisco,	Photographs, enameled.	Screen 4, W.
20	Stoddard, S. R., Glenn's Falls, N. Y.,	Photographic views and illustrated guide-books.	Screen 4, W.
21	Reilly, J. J., San Francisco,	Stereoscopic views, Yosemite Valley.	Screen 4, W.
22	Berkan, O., Philadelphia,	Pyro-photographs, on porcelain.	Wall, alcove 3.
23	American Photo-Relief Printing Company, Philadelphia,	Transparencies, on glass, for magic lantern, by Woodbury process.	Window, alcove 3.
24	Bradley & Rulofson, San Francisco,	Photographs, plain, in pastel, and crayon.	Wall and screen 4, E.

NO.	ARTIST.	TITLE.	LOCATION.
25	Melander & Brother, Chicago,	Stereoscopic groups.	Screen 4, S.
26	Newell, R., & Son, Philadelphia,	Photographic views.	Screen 5, W.
27	Tyson, I. G., Philadelphia,	Photograph in crayon.	Screen 5, S.
28	Kiloltz, B., Chicago,	Plain photographs.	Screen 5, S.
29	Sweeny, T.T., Cleveland,	Photographic views.	Screen 5, E.
30	Thorn, G. W., New York,	Photographic views.	Screen 5, E.
31	Seibert, S. R., Washington,	Improved stereoscopic camera.	Alcove 6.
32	Houseworth, Thos., San Francisco,	Photographs, Yosemite Valley.	Wall, alcove 6.
33	Anderson, D. H., Richmond,	Photographic portraits.	Screen 6, W.
34	Chase, W. M., Baltimore,	Stereoscopic views.	Screen 6, W.
35	Hardy, A. N., Boston,	Photographic portraits.	Screen 6, W.
36	Taylor, W. Curtis, Philadelphia,	Photographs, plain and colored, porcelain miniatures.	Screen 6, E.
37	Haworth, J., Philadelphia,	Photo-apparatus and albumen paper.	Main avenue.
38	Bass, P. P., Bangor, Maine,	Burnisher for photographs.	Main avenue.
39	Aitken, Philadelphia,	Photographs in crayon.	Wall, alcove.
40	Collins, Son, & Co., A. M., Philadelphia,	Card mounts, in various styles, for photographs.	Wall, alcove 7.
41	Bigelow, L. G., Detroit, Mich.,	Photographs, single and in groups.	Screen 7, W.
42	Marcy, L. J., Philadelphia,	Improved oil and lime-light lanterns.	Screen 7, S.
43	Ryder, J. F., Cleveland,	Photographs in crayon, and chromo "Yankee Doodle."	Screen 7, E.
44	Schriber & Son, Philadelphia,	Photographs of animals.	Screen 8, W.
45	Kent, J. H., Rochester, N.Y.,	Large photographic portraits, direct from life.	Screen 8, E.
46	Gutekunst, F., Philadelphia,	Photographs, glacé, crayon, water color, and plain.	Screen 9, N. wall.
47	Root, M. A., Philadelphia,	Illustrations of photography from August, 1839, to May, 1876.	Screen 8, S.
48	Pattburg & Bros., New York,	Passe-partouts and velvet cases.	Main avenue.
49	Entrekin, W. G., Philadelphia,	Oscillating enameling machine.	Main avenue.
50	Butterfield, D. W., Boston,	Large landscape views.	Screen 9, E.
51	Rau, George, Philadelphia,	Photographic portraits.	Screen 9, E.
52	Clemons, J. R., Philadelphia,	Sample prints on his albumen and on plain paper.	Screen 9, E.
53	Hesler, A., Evanston, Ill.,	Portraits of babies.	Wall, alcove 10.
54	Fitzgibbon, J. H., St. Louis,	Collection of daguerreotypes, twenty-five years old.	Wall, alcove 10.
55	Landy, J., Cincinnati,	Collection of character photographs representing the Seven Ages of Man, laughing and crying babies, and large photograph portraits.	Screen 10, W. Screen 10, S.
56	Rocher, H., Chicago,	Photographs, single figures and compositions, in size from 17 by 20 plate to 11 by 14; imperial, boudoir, and promenade portraits.	Screen 10, E.
57	Sarony, N., New York,	Photographs, plain and in crayon.	Wall, alcove 11.

NO.	ARTIST.	TITLE.	LOCATION.
58	Broadbent & Phillips, Philadelphia,	Photographs, plain, crayon, and water color.	Screen 11, W.
59	Root, Samuel, Dubuque, Iowa,	Photographs.	Screen 11, S.
60	Wilson, Hood, & Co., Philadelphia,	Photographic accessories, chemicals, and lenses.	Main avenue.
61	Mosher, C. D., Chicago,	Photographic portraits and patent album.	Screen 11, E.
62	American Photo-Relief Printing Co., Philadelphia,	Transparencies by Woodbury process.	Window, alcove 11.
63	Beckers, Alex., New York,	Revolving stereoscopes.	Alcove 11.
64	Hanse, A. L., Philadelphia,	Photographic chemicals.	Alcove 11.
65	Evans, G. & W. P., Malden, Mass.,	Photographic chairs.	Alcove 11.
66	Allen & Rowell, Boston,	Enlarged photographs in permanent pigments.	Screen 12, W.
67	Seiler, Carl, Philadelphia,	Micro-photographs.	Screen 12, S.
68	Hovey, E. F., Philadelphia,	Photographic views.	Screen 12, E.
69	Holyland, J., Baltimore,	Photographic groups.	Screen 12, E.
70	Gubleman, Theo., Jersey City, N.J.,	Photographs, plain and in pastel.	Screen 12, E.
71	Babbit, P. D., Niagara, N.Y.,	Transparencies.	Window, alcove 13.
72	Stock & Bro., J., New York,	Photographic apparatus.	Alcove 13.
73	McAllister, T. H., New York,	Magic lantern apparatus.	Alcove 13.
74	Zimmerman, T., St. Paul, Minn.,	Portraits of Indians, and views of Minnesota scenery.	Screen 13, W.
75	Schwind & Kreuger, New York,	Photographic portraits.	Screen 13, W.
76	Train & Bundy, Helena, Montana,	Photographic portraits.	Screen 13, S.
77	Peck, S. M., & Co., New York,	Photographic apparatus.	Main avenue.
78	Marshall, W. I.,	Views of Yellowstone Park.	Screen 16, E.
79	Holler, H., New York,	Photo-portraits and camera-stand.	Wall, alcove 14.
80	Gerlach & Fromhagen, Philadelphia,	Photographs, plain and in crayon.	Wall, alcove 14.
81	Broich & Kreuger, Milwaukee, Wis.,	Photographic portraits.	Screen 14, W.
82	Busey, N. H., Baltimore,	Photographic portraits.	Screen 14, W.
83	McIntyre & Co., Alexandria, N. Y.,	Stereoscopic views.	Screen 14, W.
84	Benerman & Wilson, Philadelphia,	Photographic publications.	Screen 14, S.
85	Centennial Photograph Co., Philadelphia,	Views of Centennial Exhibition.	Screen 14, E.
86	Paxson Bros., New York,	Enlarged photographs.	Wall, N.E. corner.
87	Scovill Manufacturing Co., New York,	Photographic apparatus.	Alcove 15.
88	Harring, J. C., Massillon, O.,	Photographic portraits.	Wall, N.E.
89	Schlesinger, L., Philadelphia,	Photograph album of Philadelphia physicians.	Wall, S.E.
90	Gurney, J. J., New York,	Colored enameled photographs.	Wall, S.E.
91	Waterman & Hall, New York,	Views of buildings.	Wall, S.E.

NO.	ARTIST.	TITLE.	LOCATION.
92	Woodward, D. A., Baltimore,	Solar cameras.	Alcove 16, S.E.
93	Semmendinger, A., Fort Lee, N. J.,	Photograph apparatus.	Alcove 15, S.E.
94	Seavey, L.W., New York,	Photographic backgrounds, papier maché, furniture, and accessories.	Wall, alcove 15, S.E.
95	Reid, J. J., Paterson, N. J.,	Views of mechanical constructions.	Screen 15, E.
96	Doremus, Paterson, N.J.,	Views of Mississippi, and portraits.	Screen 15, E.
97	De Silva, Abraham, Hartford, Conn.,	Interior views of students' rooms, Yale College.	Screen 15, N.
98	Howell, J. R., New York,	Artistic photographic portraits.	Screen 15, W.
99	Pach, New York,	Photographic views.	Wall alcove 18.
100	Paullin, W.T., Philadelphia,	Photographic portraits.	Screen 16, E.
101	Gentile & Co., Chicago,	Photographic portraits.	Screen 16, E.
102	Simons, M.P., Philadelphia,	Photographic portraits.	Screen 3, W.
103	Evans, E. D., Corning, N.Y.,	Photographic portraits.	Screen 16, N.
104	Lewis, T., Cambridgeport, Mass.,	Historical stereoscopic views.	Screen 16, W.
105	Black, J. W., & Co., Boston, Mass.,	Views of the Arctic Regions.	Screen 16, W.
106	Bonine, E. A., Emporium, Pa.,	Stereoscopic views of Florida.	Screen 16, W.
107	Schluter, B., Kansas City,	Photographs in crayon.	Screen 16, W.
108	French, J. A., Keene, N. H.,	Stereoscopic portraits, colored.	Screen 16, S.
109	Brooks, Thomas, Philadelphia,	Glacé embossing press.	Wall, alcove 19.
110	Freeman, A., Dallas, Texas,	Photographic portraits and views.	Screen 17, E.
111	Levy, Albert, New York,	Architectural views.	Screen 17, E.
112	Strong & Dotterer, Philadelphia,	Views of the Holy Land.	Screen 17, E.
113	Wetherby, Mrs., Philadelphia,	Colored photographs.	Screen 17, W.
114	Payne, H. T., Los Angelos, Cal.,	Views of semi-tropical California.	Screen 17, W.
115	Meyers, J. W., New York,	Photograph of pen-drawing.	Screen 12, S.
116	Weaver, Mrs. A. K., Salem, O.,	Photograph—Fern-leaf mottoes.	Screen 17, W.
117	Folsom, J. H., Danbury, Conn.,	Cabinet and solar prints.	Screen 17, W.
118	Collins, G. W., Urbana, O.,	Cabinet photographs.	Screen 17, W.
119	Hall, —, Great Barrington, Mass.,	Stereoscopic views and portraits.	Screen 17, W.
120	Gaffield, Thomas, Boston,	Original designs of ferns, feathers, and mosses in photography.	Screen 17, S.
121	Graves, J. A., Delaware Water Gap, Pa.,	Landscape views.	Screen 18, E.
122	Bachrach Bros., Baltimore,	Portraits and enlargements.	Screen 18, E.
123	Robbins, F., Oil City, Pa.,	Views of the Oil Region.	Screen 18, E.
124	Bell & Rau, Philadelphia,	Stereoscopic views from dry plates.	Screen 18, N.
125	American Photo-Relief Printing Co., Philadelphia,	Transparencies for door and window decorations, by Woodbury process.	Door, alcove 9.
126	Moran, John, Philadelphia,	Landscape views.	Screen 12, E.

NO.	ARTIST.	TITLE.	LOCATION.
127	Van Loo, Leon, Cincinnati,	Photograph portraits, single and in groups.	Screen 13, W.
128	Okerbund, E. G., Ishpeming, Mich.,	Photographic portraits.	Screen 2, N.
129	Marshall, Aug., Boston,	Vitrified photo enamels.	Screen 22, N.
130	Rice, J. D., Philadelphia,	Improved stereoscope.	Screen 8, N.
131	Wallace, E., Jr., Philadelphia,	Specimens of amateur photography.	Screen 17, W.
132	Rice Bros., Washington, D.C.,	Specimens of glacé photographs.	Screen 7, N.
133	Stockwell, N., Bainbridge, N.Y.,	Dry plate camera.	Alcove 6, N.
134	Morrow, J. H., Philadelphia,	Microscopic photographs for charms.	Main avenue.
135	Gaffield, Thomas, Boston,	Photographs illustrating the action of sunlight on glass.	Wall, alcove 18.
136	Newton, H. J., New York,	Photographs, from emulsion, dry plate negatives.	Wall, alcove N.W.

FOREIGN.

NO.	ARTIST.	TITLE.	LOCATION.
137	Lemere, Bedford, & Co., London,	Architectural photographs.	
138	Wilson, G. W., Aberdeen,	Photograph album of Scottish scenery.	Table, alcove 29.
139	Wilson, G. W., Aberdeen,	Glass transparencies and enlarged views in carbon.	Wall, alcove 29.
140	Henderson, A. L., London,	Vitrified enameled photographs, plain and colored.	Wall, W.
141	Lee, E. P., & Co., Cardiff,	Enameled photographs, plain and colored.	Wall, W.
142	Baum, F., Manchester, England,	Permanent photographs in carbon.	Wall, W.
143	Fradelle & Marshall, London,	Card portraits.	Wall, W.
144	Barnard, J., Bedford, England,	Permanent photographs in carbon.	Wall, W.
145	Hanson, W., Leeds, England,	Photographic portraits, card and cabinet.	Wall, S.W.
146	Bedford, W., England,	Photographic landscapes.	Wall, S.W.
147	Brownrigg, T. M., Dublin,	Photographic landscapes.	Wall, S.W.
148	Crawshay, Robert, Wales,	Photographic landscapes.	Wall, S.W.
149	Jennings, Payne, Dublin,	Photographic landscapes.	Wall, S.W.
150	England, William, London,	Landscapes and statuary.	Wall, W.
151	Wortly, Stuart, London,	Seascape, landscape, and portrait studies.	Wall, S. & W.
152	Norman, Carl, Tunbridge Wells,	Landscape and architectural photographs.	Wall, S.
153	Heath, Vernon, London,	Landscape studies, enlarged and printed in carbon.	Screen 28, W.
154	Dallmeyer, J. H., London,	Specimen of photographs made with Dallmeyer's lenses.	Screen 28, N.
155	Ross & Co., London,	Specimen of photographs made with Ross's symmetrical lenses.	Wall, W.
156	Hudson, F., Ventnor,	Landscape photographs.	Screen 28, E.
157	Stereoscopic Company, London,	Portraits of celebrities.	Screen 28, E.
158	Hedges, David, Lytham, Eng.,	Portraits of animals.	Screen 28, E.

NO.	ARTIST.	TITLE.	LOCATION.
159	Crawshay, Robert, Wales,	Landscape studies.	Screen 28, E.
160	Bool, A. & J., London,	Landscape studies.	Screen 28, E.
161	Robinson, H. P., Leamington, Eng.,	Instantaneous views and composition portraits from life.	Wall, alcove 28.
162	Good, Frank M., London,	Views of Palestine.	Wall, alcove 28.
163	Beau, Adolph, London,	Photographs of silver-ware, and portraits.	Screen 27, W.
164	York, Frederick, London,	Photographs and lantern transparencies illustrating zoology.	Screen 27, W.
165	Crawshay, Robert, Wales,	Landscape views.	Screen 27, W.
166	Cameron, Mrs.,	Character portraits.	Screen 27, W.
167	Slingsby, R., Lincoln, England,	Large portraits from life.	Screen 27, W.
168	Fradell & Marshall, London,	Enlarged portrait in carbon.	Screen 27, W.
169	York, F., London,	Architectural studies.	Screen 27, W.
170	Hanson, W., Leeds,	Card, cabinet, and large portraits.	Wall, alcove 29.
171	Newman, J. H., N. S. Wales,	Large photograph portraits.	Screen 27, N.
172	Newman, J. H., N. S. Wales,	Cabinet photographs.	Screen 27, N.
173	Notman, W., Montreal, Canada,	Photographs in crayon and water color.	Screen 27, E.
174	Notman, W., Montreal, Canada,	Photographs in oil and water color.	Wall, alcove 27.
175	Notman, W., Montreal, Canada,	Composition groups and plain photographs.	Screen 26, W.
176	Barrow, R. W., Kingston, Canada,	Cabinet photographs and views.	Screen 26, N.
177	Grenier, N. N., Montreal, Canada,	Photographing on wood.	Screen 26, N.
178	Barrow, R. W., Kingston, Canada,	Photographs of buildings.	Screen 26, E.
179	Henderson, Alex. Montreal, Canada,	Photographic landscapes.	Screen 26, E.
180	Adams, Owen, Sound, Canada,	Photographic landscapes.	Screen 26, E.
181	Anderson, R. W., Toronto, Canada,	Photographic landscapes.	Screen 26, E.
182	Climo, J. S., St. John,	Stereoscopic views.	Screen 26, E.
183	Bruce, J., & Co., Toronto, Canada,	Photographic portraits.	Screen 26, E.
184	Henderson, Alex., Montreal, Canada,	Composition picture of skating scene.	
185	Frith, F., Reigate, Eng.,	Interior of Canterbury Cathedral.	Screen 24, W.
186	Blanchard, Val., London,	Photographic portrait.	Screen 25, W.
187	Blanchard, Val., London,	Photographic portrait.	Screen 25, W.
188	Valentine, James, Dundee,	Photograph, Balmoral Castle, and other views.	Screen 25, W.
189	Delden, E., Breslau,	Photo portraits.	Wall, alcove 24.
190	Levy, J., & Co., Paris,	Glass transparencies.	Main avenue.
191	Kiepert, H., St. Petersburg,	Photo portrait of Emperor William.	Screen 23, N.
192	Kiepert, H., St. Petersburg,	Photo portrait of Prince Bismarck.	Screen 24, N.

NO.	ARTIST.	TITLE.	LOCATION.
193	Mischenski, Dantzic,	Variety of artistic photographs from life.	Screen 25, N.
194	Schaarwachler, J. C., Berlin,	Variety of artistic photographs.	Screen 25, E.
195	Ruckwardt, H., Berlin,	Architectural views.	Screen 25, E.
196	Loescher & Petsch, Berlin,	Variety of composition portraits.	Screen 23, W.
197	Kosler, J., Bad Landeck,	Architectural photographs.	Screen 23, W.
198	Jacobi, C. H., Coblentz,	Landscape views.	Screen 23, W.
199	Jacobi, C. H., Coblentz,	Views in printing-ink.	Screen 23, W.
200	Scholtz, Robert, Goerlitz,	Landscape photographs.	Screen 23, W.
201	Ritschel, G. A., Warbrunn,	Photographic portraits.	Screen 23, N.
202	Kiewning, E., Stettin,	Photographie portraits.	Screen 23, W.
203	Adele, Vienna,	Photographic portraits.	Screen 23, N.
204	Adele, Vienna,	Photographic portraits.	Screen 24, N.
205	Schulz & Suck, Carlsruhe,	Photographic portraits.	Screen 24, E.
206	Reichard & Lindner, Berlin,	Photographic portraits.	Screen 24, E.
207	Schwier, K., Weimar,	Copies of paintings.	Screen 24, E.
208	Heiler, E.,	Life-studies of the Cayuganga Indians.	Screen 24, E.
209	Brauneck & Meyers, Mayence,	Photo mechanical prints.	Screen 24, E.
210	Rathenower, Berlin,	Optical and photo apparatus.	Wall, alcove 24.
211	Hertzog, J., Bremen,	Photo chemicals.	Wall, alcove 24.
212	Obernetter, J. B., Munich,	Photo mechanical prints, bound in albums.	Wall, alcove 24.
213	Romeli, Ph., Berlin,	Photographs illustrating the expedition in Africa, 1873 and 1874.	Wall, alcove 24.
214	Henig, R., Berlin,	Photographic cards.	Wall, alcove 24.
215	Trapp & Munch, Friedberg,	Exhibitors of photographs and photograph papers.	Wall, alcove 25.
216	Albert, J., Munich,	Photographs in printing-ink.	Screen 25, W.
217	Geldmacher, F.W., Frankfort,	Permanent photographs on various materials.	Screen 25, E.
218	Angerer, Munich,	Family groups.	Alcove 25.
219	Braun, A., Dornach,	View in the Alps.	Screen 24, W.
220	Naya, E., Venice,	View of Rome.	Screen 24, W.
221	Heid, Dr., Vienna,	Interior View of Horticultural House.	Screen 24, W.
222	Charnaux, F., Geneva,	View in the Alps.	Screen 25, W.
223	Liebert, A., Paris,	Photographic portrait.	Screen 25, W.
224	Albert, J., Munich,	Oberammergauer or Passionsspiele.	Screen 25, W.
225	Delden, E., Breslau,	Photographic portraits.	Screen 25, E.
226	Reitmeyer, J., Munich,	Large photographs from life.	Screen 24, W.
227	Wolf, Geo., Hamburg,	Photographic portraits.	Wall, alcove 26.
228	Trapp & Munch, Friedberg,	Photographs on their make of albumen paper.	Screen 24, W.
229	Cremer, J., Gladbach,	Photographs in carbon.	Wall, alcove 25.
230	Schwier, K., Weimar,	Photograph of cartoon.	Wall, alcove 25.
231	Vidal, Léon, Paris,	Photo chromic prints.	Screen 23, E.
232	Walery, Paris,	Photographic portraits.	Screen 22, W.
233	Liebert, Paris,	Permanent photographs in carbon.	Wall, alcove 23.

NO.	ARTIST.	TITLE.	LOCATION.
234	Bray, J.W., de, Nice,	Landscape views.	Alcove 23.
235	Hutinet, D., Paris,	Specimens of photographers' cards.	Alcove 23.
236	Gillott, Paris,	Specimens of photo engraving.	Screen 23, E.
237	Auzerer, V., Vienna,	Large interior photographs.	Screen 22, E.
238	Stillfried, R. B., Yokohama,	Views in Japan.	Screen 22, E.
239	Largarjoli, F., Meran, Tyrol,	Views in the Tyrol.	Screen 22, E.
240	Wasservogel, S., Olmütz,	Studies of animals.	Screen 21, W.
241	Schodisch, Lud., Oberwarth,	Studies of animals.	Screen 21, W.
242	Luckhardt, F., Vienna,	Photographic portraits.	Screen 21, W.
243	Gertinger, J., Vienna,	Photographic portraits.	Screen 21, W.
244	Burckman, F., Munich,	Colored transparencies on glass.	Screen 21, W.
245	Luckhardt, F., Vienna,	Colored stereoscopic portraits.	Alcove 22, W.
246	Bogner, A., Munich,	Venus and Tannhauser.	Screen 21, N.
247	Ungar, J., Vienna,	Children's portraits.	Screen 21, E.
248	Rupprecht, M., Oldenburg,	Groups from life.	Screen 21, E.
249	Aubert, E., Christiania,	Photographic portraits.	Wall, alcove 22.
250	Knudsen, K., Bergen,	Landscape views.	Wall, alcove 22.
251	Knudsen, C., Christiania,	Portraits of ladies.	Wall, alcove 22.
252	Beernaert Frères, Ghent,	Photographic portraits.	Screen 20, W.
253	Pacheco, I., Rio de Janeiro,	Plain and colored photographs.	Screen 20, W.
254	Fidanza, F. A., Pará, Brazil,	Photographic portraits.	Screen 20, W.
255	Satyro, Pedro,	Colored miniatures.	Screen 20, W.
256	Sabino, J. T., Pará, Brazil,	Card photographs.	Screen 20, W.
257	Christiano, Jr., Buenos Ayres,	Card and cabinet photographs.	Screen 20, W.
258	Monzon, T. B., Buenos Ayres,	Card and cabinet photographs.	Screen 20, W.
259	Petre, F., Buenos Ayres,	Colored photograph.	Screen 20, W.
260	Aguila, C. de, Buenos Ayres,	Photographic views.	Screen 20, W.
261	Proa, C., Buenos Ayres,	Photographic portraits.	Screen 20, W.
262	Pozzo, Aug., Oesti,	Photographic portraits.	Screen 20, W.
263	Bunge, E., Buenos Ayres,	Photographs of public buildings.	Screen 20, W.
263*a*	Souza, Silveira, Rio de Janeiro,	Colored miniatures.	Screen 20, W.
263*b*	Ferrez, M,, Rio de Janeiro	Geological photographs.	Screen 20, W.
263*c*	Verranzo, L., Rio de Janeiro,	Portraits and views.	Screen 20, W.
264	Geologica, C., Rio de Janeiro,	Photographic portraits.	Screen 20, W.
265	Wiklund, O., Westeras, Sweden,	Composition groups and views.	Screen 20, E.
266	Bergh, E., Stockholm, Sweden,	Landscape.	Screen 20, E.
267	Winge, M. E., Stockholm, Sweden,	Copies of cartoons.	Screen 20, E.
268	Jager, J., Stockholm, Sweden,	Photographs of sculpture and paintings.	Screen 20, E.

NO.	ARTIST.	TITLE.	LOCATION.
269	Lundberg, W., Stockholm,	Photographic portraits.	Screen 20, E.
270	Osti, Henry, Upsala, Sweden,	Photographic portraits.	Screen 20, E.
271	Sophje, L., Upsala, Sweden,	Photographic portraits.	Screen 20, E.
272	Campa, C. Y., Mexico,	Photographic portraits.	Screen 19, W.
273	Stillfried & Anderson, Yokohama, Japan,	Native portraits and views.	Wall, alcove 20, S.
274	Tyszkiewicz, Count, Russia,	Portraits and views illustrating his travels in Africa, and taken there by his artist.	Wall alcove 19.
275	Bergomasco, St. Petersburg,	Photographic portraits.	Screen 18, W.
276	Meczkowski, Warsaw,	Photographic portraits.	Screen 18, W.
277	Brandel, Warsaw,	Photographic portraits.	Screen 18, W.
278	Kostra, Warsaw,	Photographic portraits.	Screen 18, W.
279	Karelin, Warsaw,	Photographic portraits.	Screen 18, W.
280	Carbutt, John, Philadelphia,	Photo-lithograph reproductions.	Screen 13, E.
281	Bierstadt, E., New York,	Photographs, in printing-ink, by Albert's process.	Wall, N.W.
282	Mason, O. G., New York,	Photographs of the moon.	Wall, alcove 1, N.W.
283	Hirsh, J. M., Chicago,	Specimens of relief plate engraving.	Wall, N.
284	Wenderoth, F. A., Philadelphia,	Specimens of photo engraving.	Screen 13, E.
285	Photo-Lithograph Co., New York,	Specimens of photo lithography.	Wall, N.
286	Osgood, J. R., & Co., Boston,	Photographs in printing-ink, by heliotype process.	Screen 13, E.
287	Ornamental Mirror Co., New York,	Photographs on mirrors.	Wall, N., alcove 4.

No. 110.—CENTENNIAL PHOTOGRAPHIC ASSOCIATION BUILDING,

Architects, H. J. SCHWARZMANN, HUGH KAFKA.—Size, 150 feet by 30 feet.

The Photographic Association have erected a one-story frame building, located north of the Main Exhibition Building, on the east side of Belmont Avenue. It contains one room for the exhibition of photographs, and three rooms for photographers, for working purposes.

OUT-DOOR WORKS OF ART.

WINGED HORSES.

Owned by the FAIRMOUNT PARK COMMISSION.

In front of Memorial Hall are situated two bronze groups, each representing the mythological winged horse Pegasus; by the side of the one stands a figure emblematic of Music, and by the other a figure representing History. They were cast in Vienna, and purchased by the Park Commission.

No. 12.—BARTHOLDI'S FOUNTAIN.

Architect, A. BARTHOLDI, of Paris.—Size, basin, 26 feet in diameter; height, 30 feet; statue, 11 feet.

Situated in the Esplanade, in front of the main entrance to the grounds; constructed of iron, bronzed, and was cast in Paris by A. Durenne. In the centre of the basin is erected a triangular pedestal, on the faces of which are aquatic monsters, and fishes spouting water. Upon the pedestal are three female Caryatides, supporting a basin thirteen feet in diameter, which receives the water from an upper basin upheld by three infant Tritons; the whole surmounted by a Mural Crown, through which the water flows. An illuminating apparatus is attached, in order to combine the effects of light and water. This fountain is intended to embody an allegorical representation of the elements Water and Light.

No. 13.—CATHOLIC TOTAL ABSTINENCE FOUNTAIN.

Architect, HERMAN KIRN, Philadelphia.

Situated at the junction of Fountain Avenue and the Avenue of the Republic, at the northwestern corner of Machinery Hall. In design it is a circular platform, with four arms projecting at right angles, terminating in four smaller circular platforms. From the centre of the large circle rises a marble rockwork, sixteen feet high, with a diameter of eighteen feet at base, on which stands a statue of Moses smiting the rock. The water descends from numerous fissures into a basin forty feet in diameter. On each of the circular platforms is a drinking-fountain, twelve feet in height and eight feet eight inches in diameter, surrounded with statues, nine feet high. These represent Father Mathew, Charles Carroll, Archbishop John Carroll, and Commodore John Barry. It has been erected by contributions made by the numerous societies forming the Catholic Total Abstinence Union of America.

No. 24.—THE AMERICAN SOLDIER.

Exhibitors, NEW ENGLAND GRANITE COMPANY, Hartford, Conn.

A granite statue, designed for the Antietam Soldiers' Monument; is twenty-one feet six inches high, exclusive of the pedestal, and weighs thirty tons; it represents a soldier in the United States uniform, standing at rest, and is located in front of the north-central entrance of the Main Building, and opposite Memorial Hall.

No. 29*a*.—RUSTIC MONUMENT.

Exhibitors, NEW ENGLAND GRANITE COMPANY, Hartford, Conn.

A granite column, entwined with polished ivy, and surmounted by a cross; is situated southeast of Machinery Hall.

No. 29*b*.—MONUMENT.

Exhibitors, NEW ENGLAND GRANITE COMPANY, Hartford, Conn.

A small polished granite monument, surmounted by an urn; is located in front of the Board of Finance Office.

No. 29*c*.—GOTHIC MEMORIAL.

Exhibitors, NEW ENGLAND GRANITE COMPANY, Hartford, Conn.

Made of Westerly granite, thirteen feet high, surmounted by a cross; is placed between the Bartholdi Fountain and the Board of Finance Office.

No. 29*d*.—MEMORIAL.

Exhibitors, NEW ENGLAND GRANITE COMPANY, Hartford, Conn.

Built of granite, with polished tracery; is located southeast of Machinery Hall.

No. 29*e*.—POLISHED SCOTCH GRANITE MONUMENT.

Exhibitors, NEW ENGLAND GRANITE COMPANY, Hartford, Conn.

Is seventeen feet high, surmounted by a circular dome, and placed between the Bartholdi Fountain and Machinery Hall.

No. 29*f*.—GOTHIC COLUMN AND PEDESTAL.

Exhibitors, NEW ENGLAND GRANITE COMPANY, Hartford, Conn.

Granite work, with richly ornamented capitals, surmounted by a spire; is located in front of the Board of Finance Office.

No. 29*g*.—THE MINUTE-MAN OF '76.

Exhibitors, NEW ENGLAND GRANITE COMPANY, Hartford, Conn.

A marble statue, life size, on a pedestal seven feet high; situated southeast of Machinery Hall.

No. 29*h*.—GOTHIC FOUNTAIN.

Exhibitors, NEW ENGLAND GRANITE COMPANY, Hartford, Conn.

Built of granite, seventeen feet high, surmounted by a cross, with four columns representing angels, with polished traceries; is located between the Board of Finance Office and Machinery Hall.

No. 29*i*.—CANOPY MONUMENT.

Exhibitors, NEW ENGLAND GRANITE COMPANY, Hartford, Conn.

Is built of granite, forty feet high, crowned with a spire and cross; within is seated a figure representing Memory; is situated southeast of Machinery Hall, between it and the Board of Finance Office.

No. 29*k*.—CORINTHIAN MONUMENT.

Exhibitors, NEW ENGLAND GRANITE COMPANY, Hartford, Conn.

Is located between Machinery Hall and the Board of Finance Office, southwest of the Bartholdi Fountain; is constructed of granite, forty-six feet high, and crowned with a statue of Hope.

No. 50. — WASHINGTON.

Exhibitor, M. DICKERSON EYRE, Florence, Italy.

This statue is designed after Leutze's painting of "Washington Crossing the Delaware." It is of marble, heroic in size, being twelve feet high, and standing on a pedestal built of wood and Portland cement. It is situated south of, and directly in front of Judges' Hall.

No. 52½.—THE HOWE MONUMENT.

A bronze statue, life size, on a sandstone pedestal, erected by the Howe Sewing Machine Company to the memory of the late Elias Howe; situated near the western end of the lake.

No. 80.—CHRISTOPHER COLUMBUS MONUMENT.

A brown-stone statue of the discoverer; is located on the corner of Belmont and Fountain Avenues.

No. 81.—DRINKING-FOUNTAIN.

Exhibitors, SINGER & TALCOTT.

Constructed of limestone, with four pillars, square top, surmounted by an acorn; is situated on Fountain Avenue, between the Pennsylvania State Building and the Tunisian Café.

No. 91.—BISHOP RICHARD ALLEN'S MONUMENT.

Size, base, 6 feet by 6 feet; height, 16 feet.

Erected in memory of the Rev. Richard Allen, founder and first bishop of the African Methodist Episcopal Church; situated between Fountain and State Avenues, west of the United States Government Building.

No. 145.—THE NAVY.

Exhibitors, AMES MANUFACTURING COMPANY, Chicopee, Mass.
LARKIN G. MEAD, Sculptor.

A bronze group, for the Lincoln Monument, Springfield, Illinois; located in front of Memorial Hall.

No. 146.—THE DEAD LIONESS.

Owned by the FAIRMOUNT PARK COMMISSION.

A bronze group, cast by F. v. Müller, Munich; modeled by Prof. Wolf, Berlin; is situated between Memorial Hall and Photographic Hall.

No. 180.—THE MOTT FOUNTAIN.

Exhibitors, THE J. L. MOTT IRON WORKS, New York.

Constructed of iron, forty-five feet in diameter, and twenty-six feet high, with four figures at the base; the top is surmounted by "Venus rising from the Sea;" is situated east of Horticultural Hall.

INDEX OF EXHIBITORS.

DEPARTMENT IV.

A.

Absolon, J., Water color, 65.
Academy of Fine Arts of Rio de Janeiro, Paintings, 121.
Accard, E., Painting, 74.
Accarisi, Lodovico, Paintings, 113, 114, 115, 116; Sculpture, 117.
Achenbach, A., Painting, 85.
Adams-Acton, John, Sculpture, 60.
Adams, Miss E., Water colors, 49.
Adams, O., Photographs, 142.
Adan, L. Emile, Paintings, 73, 79.
Adele, Photographs, 143.
Adeline, Jules, Water color, 81.
Adelsköld, C., Paintings, 105.
Agnew, A. McL., loans Painting, 20.
Agnew & Sons, loan Paintings, 62, 63, 64, 65.
Aguila, C. de, Photographs, 144.
Ahrenberg, J., Water color, 107.
Aigner, J. M., Painting, 89.
Aitken, Photographs, 138.
Aivazowsky, J., Paintings, 134.
Akroyd, John, loans Painting, 62.
Albacini, Achille, Sculpture, 118.
Albazzi, José, Bas-relief, 127.
Albert, J., Photographs, 143.
Albertson, J. M., Glass, 9.
Alcibar, José, Painting, 124.
Alden, A. C., loans Painting, 31.
Alexander, F., Painting, 22.
Alexander, Fanny, Painting, 41; Drawings, 48, 49, 54.
Alexander, Mrs., loans Painting, 23.
Alexieff, A., Carving, 136.
Allebé, Aug., Painting, 102.
Allemand, G., Painting, 77.
Allen, G. W., loans Painting, 69, 70.
Allen & Rowell, Photographs, 139.
Allston, W. (dec'd), Paintings, 18, 19, 41, 42.
Alman & Co., Photographs, 137.
Almeida, Marianno de, Pen sketches, 121.
Almeida, Reis, Sculpture, 121.
Almela y Vinet, F., Photographs, 132.
Alt, Francis, Water colors, 90.
Alt, Ralph, Water colors, 90.
Alt, W. J., loans Painting, 64.
Altamura, Prof., Painting, 114.
Altmann, S., Paintings, 102, 103.
Alvarez y Espino, Gonzalo, Painting, 126.
Alviac & Co., Photographs, 132.
Amberg, W., Painting, 85.
American Bank Note Co., Engraving, 59.
American Photo Relief Printing Co., 137, 139, 140.
Amerling, Fred., Painting, 88, 89.
Ames, Joseph, Paintings, 41, 42.
Andersen, A., Paintings, 104.
Anderson, A. A., Paintings, 19.
Anderson, D. H., Photographs, 138.
Anderson, R. W., Photographs, 142.
Andressen, E., Sculpture, 86.
Andrews, E. F., Paintings, 39, 40, 43.
Andrews, Joseph (dec'd), Engraving, 59.
Angell, H. C., loans Painting, 39.
Angeli, Henry von, Paintings, 91.
Angerer, Photographs, 143.
Angus, W., loans Painting, 71.
Ankarkrona, H., Paintings, 105.
Anker, Herman, Paintings, 109.
Ansdell, Richard, Paintings, 60.
Anthony, E. & H. T., & Co., Graphoscopes, 137.
Anthony, Mark, Painting, 60.
Antigna, J. P. A., Paintings, 72, 79.
Apol, L., Painting, 100, 102.
Appleton, Nath., loans Painting, 19.
Appleton, William, loans Painting, 42.
Appleton, W. H., loans Painting, 19.
Aragonés, Señorita J., Paintings, 129.
Aramburu, R., Drawings, 131.
Arbo, P. M., Painting, 108.
Arborelius, O. P., Paintings, 105.
Arce, I., Lithographs, 132.
Archer, J., Paintings, 60.
Ardi, Bartolomeo, Sculpture, 117.
Argenti, Antonio, Sculpture, 111, 113, 119.
Argenti, Giosué, Sculpture, 110, 116, 119.
Argles, F. A., loans Water colors, 65, 66.
Argumosa, J., Painting, 130.
Ariza y Campano, J., Typographs, 131.
Armitage, Edward, Painting, 60.
Armstrong, D. M., Paintings, 22, 31.
Arnanz, J., Engravings, 131, 132.
Arrau, Viuda de, Paintings, 127.
Arsenio, A., Monuments, 132.
Arsenius, J., Painting, 105.
Arson, A., Sculpture, 76; Bronze, 81.
Art Association, Montreal, loans Painting, 70.
Artillery Museum, Madrid, Engravings, 131.
Arzadun, J. de Villa Garcia, Bas-reliefs, 127.
Ashburton, Lady Louisa, loans Painting, 62, 63.
Ashton, Federico, Paintings, 114, 115.
Ashton, Prof. Luigi, Painting, 115.
Askevold, A., Paintings, 108.
Asselbergs, Alphonse, Painting, 93.
Astor, J. Jacob, loans Painting, 25.
Astor, William, loans Painting, 50.
Aubert, E., Photographs, 144.
Audubon, J. J. (deceased), Painting, 18, 45.
Auzerer, V., Photographs, 144.

B.

Baade, Knud, Painting, 108.
Babbit, P. D., Transparencies, 139.
Bachman, H. G., Ivory carvings, 55.
Bachrach Bros., Photographs, 140.
Bacon, Henry, Painting, 43.
Bade, Garcia, Painting, 114.
Baigent, R., Painting, 69.
Bailey, Edward Hodges, Sculpture, 60.
Bailly, J. A., Sculpture, 51.
Bailly, J. W., Sculpture, 21.
Baird, Matthew, loans Painting, 47.
Baker, G. A., Paintings, 17, 21, 24.

Baker, Miss M. K., Painting, 41.
Baldwin, A. H., Paintings, 25, 28; Water color, 29.
Baldwin, Captain, loans Water color, 65.
Baldwin, Hon. H. P., loans Painting, 40.
Ballavoine, J. F., Painting, 74.
Ballot, Mrs. A., Painting, 73.
Bannister, E. M., Painting, 42.
Bar, A. de, Paintings, 76, 77, 79.
Barber, W. & C., Medals, 55.
Barcaglia, D., Sculpture, 110, 113, 114, 116.
Barlow, H. N., loans Painting, 43.
Barlow, J. H., Penmanship, 56.
Barlow, T. O., Engravings, 67.
Barnaba, L., Paintings, 92, 94, 95.
Barnard, J., Photographs, 141.
Barne, F., loans Painting, 63.
Barnes, Demas, loans Painting, 38.
Baron, S., Painting, 76.
Barr, E. G., loans Painting, 62.
Barras, Felix, Painting, 79.
Barrias, F. J., Painting, 77.
Barrias, L. E., Silver bronze, 81.
Barringer, L. M., loans Painting, 37.
Barros, Alvaro, Painting, 122.
Barrow, R. W., Photographs, 142.
Barry, James, Painting, 60.
Bartehlmess, N., Engraving, 86.
Bartesago, Enrico, Painting, 115.
Bartholdi, Sculpture, 40.
Bartholdi, A., Bronzes, 74, 87.
Bartholdi, F. A., Paintings, 72.
Bartlett, G. H., Drawings, 48, 49.
Bartlett, Jennie, Painting, 44.
Barzaghi, F., Sculpture, 110, 114, 116, 117.
Bass, P. P., Burnisher, 138.
Batchelder, S., loans Painting, 42.
Bates, E. L., loans Painting, 43.
Bates, W. J., loans Painting, 38.
Baucé, J. A., Painting, 74.
Bauer, C. W., Photographs, 103.
Baum, F., Photographs, 141.
Bauman, A., Carving, 135.
Baux, Miss, Painting, 77.
Bavarian Museum of Art, Galvanoplasty, 86.
Baxter, C., loans Painting, 29.
Bayley, James, loans Painting, 47.
Bazzanti, P., & Son, Sculpture, 111, 112, 113, 115.
Beard, J. H., Paintings, 22, 29, 55.
Beard, W. H., Paintings, 24, 29.
Beau, A., Photographs, 142.
Beavis, R., Water color, 65.
Bechtolsheim, G. von, Painting, 84.
Becker, A., Painting, 135.
Becker, C., Painting, 83.
Becker, G., Painting, 73.
Becker, Q., Paintings, 84, 85.
Beckers, A., Stereoscopes, 139.
Becucci Bros., Sculpture, 110, 111.
Bedford, W., Photographs, 141.
Beeckman, Marie F. de, Water colors, 99.
Beeler, J., Design, 36.
Beeler, J. C., Ornamental painting on glass, 56.
Beernaert Bros., Photographs, 144.
Beernaert, Miss Euphrosyne, Painting, 93.
Beeson, Miss E. L., Painting, 18.
Begas, O., Painting, 83.
Behmer, H., Paintings, 85.
Bell, J., Sculpture, 60.
Bellange, E., Painting, 75.
Bellée, G. C., Painting, 78.
Bellée, L. G. de, Painting, 73.
Bellel, J. J., Paintings, 72, 75, 78, 80, 87.
Bellemans, Joseph, Paintings, 93, 95.
Bellermann, Frd., Painting, 83.
Bellows, A. F., Paintings, 17, 26, 27, 28.
Bell & Rau, Photographs, 140.
Bemardelli, Sculpture, 121.
Benavent, C., Painting, 127.
Bencke & Scott, Chromo-lithograph, 55.
Benedict, Judge, loans Painting, 18.
Benerman & Wilson, Photographs, 137, 139.
Benham, C. C., Drawings, 49.
Benham, J. H., jr., loans Drawing, 49.
Benito, S. de E., Locks, 132.
Bennett, C., Painting, 105.
Bennetter, J. J., Paintings, 108.
Benouville, A., Paintings, 72, 74.
Benson, Eugene, Paintings, 17, 19, 21, 39, 40.
Benton, J. Dean, Sculpture, 53.
Berchère, N., Painting, 77.
Berg, A., Paintings, 105.
Bergh, Anton, Painting, 109.
Bergh, E., Paintings, 105, 144.
Bergman, Miss E., Painting, 105.
Bergomasco, Photographs, 145.
Bergonzoli, Giulio, Sculpture, 110.
Bergslien, Painting, 109.
Bergstedt, Miss A., Painting, 105.
Berkan, O., Pyro-photographs, 137.
Berlin, J. J., Paintings, 93, 95.
Berlin Photograph Co., Photographs, 86.
Bernasconi, Pietro, Sculpture, 110, 113.
Berres, J. von, Paintings, 88, 89, 90.
Bersini, Ferdinando, Painting, 115.
Bertaux, Miss L., Sculpture, 79.
Bertaux, Mrs. L., Bronze, 81.
Berthelemy, E., Painting, 76.
Berthon, G. T., Painting, 70.
Bertrand, E., Painting, 70.
Betti, Francesco, Mosaic tables, 112.
Betti, Telemaco, Mosaic pictures, 112.
Bevington & Co., Decorated china, 58.
Bianchi, L., Painting, 115.
Bianchini, Telemaco, Mosaic tables, 112.
Bibiloni, J., Drawings, 131.
Bichot, Felix, Etchings, 80.
Bicknell, H. S., loans Water color, 66.
Bideau, E., Painting, 78.
Biella, Angelo, Sculpture, 111.
Bien, J., Lithographs, 58.
Bierstadt, A., Paintings, 23, 31, 39, 43, 44; loans Paintings, 31, 37.
Bierstadt, C., Photographs, 137.
Bierstadt, E., Photographs, 145.
Bietta, Angelo, Sculpture, 119.
Biganzoli, Filippo, Sculpture, 118.
Bigelow, L. G., Photographs, 138.
Bijara, C. F., Painting, 111.
Bilders, J. W., Paintings, 100, 101, 102.
Biliard, E., Painting, 77.
Billing, T., Painting, 105.
Billings, Dr. H., loans Painting, 38.
Billings, E. T., Paintings, 41, 42.
Bing, Dr. B. J., loans Painting, 40.
Biot, Gustave, Engravings, 98.
Birch, T. (deceased), Paintings, 18, 39, 43.
Bischop, C., Painting, 100.
Bishop, D. W., loans Painting, 31.
Bisi, Prof. Luigi, Painting, 111.
Bispham, H. C., Painting, 29.
Bisschop, C., Painting, 101.
Blaas, C., Paintings, 89, 90.
Black, J. W., & Co., Photographs, 140.
Blackstadius, J. L., Water colors, 107.
Blanc, C. L., Painting, 72.
Blanchard, C., loans Painting, 23.
Blanchard, I., Bronze, 81.
Blanchard, V., Photographs, 142.
Blashfield, E. H., Painting, 19.
Bliss, Lucia S., Water colors, 48.
Bloomer, H. B., Painting, 39.
Bloor, A. J , Designs, 35.
Blossom, J. B., loans Painting, 22.
Blum, M., Painting, 74.
Blume, E., Painting, 89.
Bocks, M., Painting, 103.
Bocock, S W., loans Painting, 26.
Böe, F., Paintings, 108, 109.
Boehm, Hannah, Silhouettes, 86.
Bogner, A., Painting, 144.
Bogoliooboff, A., Paintings, 134.
Boklund, J. C., Paintings, 105.
Boks, M., Painting, 102.
Bollans, E., loans Painting, 63.
Bompiani, Roberto, Painting, 115.
Boncinelli, G., & Co., Mosaics, 112, 113.

Boneo, M. L., Painting, 122.
Bonet, Louis, Cameos, 55.
Bonfield, W. V. der V., Painting, 47.
Bonheur, Rosa, Painting, 38.
Bonine, E. A., Photographs, 140.
Bonnefoy, H., Painting, 77.
Bool, A. & J., Photographs, 142.
Boott, Eliz., Painting, 41.
Borch, C., Sculpture, 108, 109.
Borden, E. P., loans Painting, 27.
Borden, M. C. D., loans Painting, 22.
Borghi, A., Sculpture, 114, 115.
Börjeson, J., Statuary, 105.
Börjesson, Miss A., Paintings, 105.
Borselen, I. W. van, Painting, 101.
Bosboom, J., Paintings, 100, 102, 103.
Bosch, E., Painting, 84.
Boser, F., Paintings, 84, 85.
Bossuet, F. A., Painting, 95.
Boston Athenæum, loans Paintings, 22, 41, 42.
Boston, Citizens of, loan Painting, 45.
Bottinelli, A., Sculpture, 110, 113, 114, 116, 118.
Bottinelli, C., Sculpture, 111.
Boughton, G. H., Paintings, 17, 25, 26, 28, 30, 61, 64.
Bouillard, A. M. L., Painting, 75.
Bourdan, Marquinta, Sculpture, 117.
Bouré, Antoine Felix, Statuary, 96.
Bouvier, A., Brussels, Painting, 94.
Boyen, O. von, Painting, 84.
Boyle, F. T. L., Painting, 44.
Brackett, W. M., Painting, 41.
Bracony, Guglielmo, Sculpture, 110.
Bradley & Rulofson, Photographs, 137.
Brady, W. B., Photographs, 137.
Braja, E., Sculpture, 110, 117, 118, 119.
Brandard, E. P., Engraving, 67.
Brandel, Photographs, 145.
Brandelius, P., Painting, 105.
Braun, A., Photograph, 143.
Braun, L., Painting, 85.
Brauneck & Meyers, Prints, 143.
Bray, J. W. de, Painting, 144.
Brenner, C. C., Painting, 20.
Brest, F., Paintings, 72, 73.
Breton, E., Paintings, 78, 79.
Brett, John, Painting, 61.
Breuker & Kessler, Engraving, 58.
Brewer, Caroline, loans Drawing, 49.
Bricher, A. T., Paintings, 26, 27, 31.
Bridgeman, F. A., Paintings, 20, 22, 24, 31.
Bridges, Fidelia, Paintings, 27, 28.
Bridgman, I. W., Painting, 71.
Bridgman & Foster, Paintings, 71.
Brierly, O. W., Water color, 65.
Brion, G., Painting, 38.
Briscoe, F. D., Paintings, 21, 46.
Brissot de Warville, Painting, 75.
Bristol, J. B., Painting, 21.
Broadbent & Phillips, Photographs, 139.
Brodzki, Sculpture, 119.
Brogden, A., loans Paintings, 62, 65.
Broich & Kreuger, Photographs, 139.
Bronnikoff, T., Painting, 134.
Brooke, T. F., loans Painting, 41.
Brooks, S., Painting, 31.
Brooks, T., Photographs, 140.
Broome, Isaac, Sculpture, 50.
Brown, C. V., Painting, 24.
Brown, G. L., Paintings, 20, 42, 43; Drawings, 49; Etchings on copper, 59.
Brown, H. B., Painting, 39.
Brown, J. G., Paintings, 19, 26, 27.
Brown, J. H., Paintings, 21.
Brown, W., loans Painting, 27.
Brown, W. W., Painting, 40.
Brownrigg, T. M., Photographs, 141.
Bruce, J., & Co., Photographs, 142.
Brücke, G., Painting, 84.
Bruckner, H., Drawings, 48, 56.
Bruelle, G., Painting, 75.
Brunacci, Pietro, Mosaic tables, 112.
Brunet, D. A., Etchings, 80.
Brunet-Houard, P. A., Paintings, 72, 73.
Brunin, Charles, Statuary, 96.
Brunner, J., Painting, 88.
Brunow, L., Bronzes, 86.
Brush, G. S., loans Painting, 71.
Bryant & Rogers, Designs, 32.
Bryce, Gray, loans Painting, 23.
Bryner, Giovanni, Painting, 116.
Buchner, R., Painting, 61.
Buffalo Fine Art Gallery, loans Paintings, 24, 29.
Bühlmayer, Conrade, Painting, 88.
Bullard, Mrs. J., loans Painting, 18.
Bunge, E., Photographs, 144.
Bunner, A. F., Painting, 17.
Buoninsegna, Sculpture, 118.
Burckman, F., Painting, 144.
Burdick, H. R., Drawing, 54.
Burdin, Margherita, Sculpture, 117.
Burlando, Prof. Leop., Painting, 116.
Burling, G., Paintings, 25, 28.
Burns, C. M., Drawings, 49.
Burnside, J. M. T., loans Paintings, 69, 70.
Burrell, D. T., Photographs, 137.
Burt, J. M., loans Paintings, 19, 31.
Burt, Martha, Painting, 26.
Burt & Hinshelwood, Engravings on steel, 58.
Busey, N. H., Photographs, 139.
Busio, Prof. Luigi, Painting, 116.
Busson, C., Painting, 75.
Bustamente y Gallo, Mosaic, 132.
Butler, D., loans Painting, 70.
Butler, R., loans Painting, 30.
Butterfield, D. W., Views, 138.
Butti, Enrico, Sculpture, 114.
Buxton, E. W., loans Painting, 64.
Buzzi, Giberto C. L., Sculpture, 118, 119.

C.

Caballot, L., Painting, 78.
Caballero, N., Painting, 123.
Caballero y Fiallo, M., loans Painting, 129.
Cabanel, Alex., Painting, 37.
Cabot, E. C., Design, 33, 49, 54.
Cabot & Chandler, Designs, 32, 37.
Cabott, Mrs. S., loans Painting, 49.
Cabral y Vejarano, Manuel, Painting, 126.
Cabuzel, A. H., Painting, 75.
Cadiz, Prov. Deputation of, Calligraphs, 131.
Cady, J. C., Designs, 33, 34.
Caille, J. M., Bronze, 79.
Cain, A., Painting, 78; Bronze, 81.
Calderon, Philip H., Painting, 61.
Callcott, Sir Augustus Wall, Painting, 61
Callias, H., Painting, 78.
Callow, W., Water colors, 65.
Calografia, N., Lithographs, 131.
Calverly, C., Sculpture 44, 52.
Calvi, P., Sculpture, 110, 119.
Calzadilla, S., Painting, 122.
Cambi, U., Sculpture, 111, 116, 119.
Cambos, J., Bronze, 81.
Cameron, Hugh, Painting, 61.
Cameron, Miss K., Painting, 20.
Cammarano, Michele, Painting, 114.
Camorré, L., Painting, 78.
Campa, C. Y., Photographs, 145.
Candidi, Alfredo, Painting, 116.
Canella, Carlo, Sculpture, 117.
Cannone & Gargiulo, Sculpture, 118.
Canon, J., Paintings, 88, 90.
Canta, J. A., Paintings, 100, 103.
Cantalamessa, P. Capotti, Sculpture, 113.
Cantzler, H., Paintings, 105.
Carabain, J. F., Paintings, 93, 94, 95.
Carbutt, J., Photographs, 145.
Carderera y Solano, V., Iconography, 131.
Cardon, Charles Leon, Painting, 92.
Cariss, H. T., Painting, 21.
Carlier, Modeste, Painting, 93.
Carmick, Louis, loans Painting, 50.

Caroni, Prof. E., Sculpture, 110, 113, 114, 116.
Carpenter, F., loans Painting, 30.
Carrier, B. P., Paintings, 77, 78.
Carter, E., loans Paintings, 69, 70.
Carter, W. T., loans Painting, 43.
Cary, Mrs. H. W., loans Painting, 40.
Casas, J., Hairwork, 133.
Casetti, Sculpture, 119.
Casiñol, Leopoldo de, Chromo, 132.
Cassagne, A., Paintings, 77, 78, 79.
Cassinelli, H., Painting, 79.
Cassioli, Annibale, Painting, 116.
Castelneau, P. de, Painting, 77.
Castiglione, G., Paintings, 72, 73.
Castillo, B. del, Painting, 122.
Castro, José Antonio, Painting, 123.
Catala, Federico, Painting, 127.
Catena, Vincenzio, Sculpture, 117.
Catlin, George, Drawings, 49.
Cattermole, George, Water color, 65.
Cauldwell, J. B., loans Painting, 30.
Cauldwell, W. A., loans Painting, 22.
Cauty, H. H., Painting, 61.
Cayley, W., loans Painting, 70.
Cecioni, Sculpture, 78.
Cedergren, P. A., Painting, 105.
Cederström, G., Painting, 105.
Centennial Commission, Competitive designs of Centennial buildings, 57.
Centennial Photograph Company, 139.
Century Club, loans Paintings, 23, 31.
Cetner, A. de, Painting, 76.
Cettner, A., Painting, 79.
Chagot, E., Paintings, 74, 77.
Chagrt, E. A., Water colors, 81.
Chaillon, N., Paintings, 73, 75.
Champney, B., Paintings, 41, 42.
Champney, J. W., Painting, 20, 22, 42, 43.
Chantrey, Sir Francis L., Sculpture, 60.
Chapman, A., loans Painting, 70.
Chapman, Estate of Dr., loans Painting, 38.
Charnaux, F., Photograph, 143.
Charton, E., Paintings, 122.
Chartran, T., Painting, 73.
Chartrand, E. S., Painting, 130.
Chartrousse, E., Bronze, 81.
Chase, W. M., Painting, 39; Views, 138.
Chaves, Pinheiro, Sculpture, 121.
Cheffins, C. R., loans Water colors, 65.
Cheney, Mr., loans Painting, 22.
Cherez, L., Painting, 77.
Chesterman, G., loans Paintings, 17, 18.
Chevrier, J., Paintings, 73, 74, 75.
Chiama, Epaminonda, Painting, 122.
Chickering, G. H., loans Painting, 43.
Chickering, Mrs. L. L., loans Painting, 42.
Christiano, jr., Photographs, 144.
Church, F. E., Painting, 30.
Cicconi, F., Paintings, 115, 116.
City Hall, New York, loans Paintings, 40, 50.
Civita, Angelo, Mosaic tables, 112.
Claghorn, J. L., loans Painting, 40.
Claghorn, J. Raymond, loans Painting, 38.
Clairval, Mrs. M. T., Painting, 76.
Clare, W., loans Painting, 71.
Clark, E. M., loans Painting, 25.
Clark, H. P., Design, 32.
Clark, J., Paintings, 61.
Clark, Latimer, loans Water color, 66.
Clark, W. J., jr., loans Painting, 24.
Clave, Pelegrin, Painting, 123.
Clément, A. F., Paintings, 73.
Clément, H., Painting, 75.
Clemment, Charles G., loans Painting, 65.
Clemons, J. R., Prints, 138.
Clever, J., Painting, 135.
Cleynhens, Theodore, Painting, 93.
Clift, Smith, loans Painting, 22.
Climo, J. S., Views, 142.
Clint, Alfred, Paintings, 61.
Clinton, Chas., Designs, 33.
Clinton, C. W., Designs, 33.
Cliver & Elway, Frame, 55.
Close, S. L., loans Painting, 30.
Clowes, Miss C. M., Painting, 22.
Cobb, Cyrus, loans Painting, 43.
Cobb, Darius, Painting, 43.
Cocchio, Luigi, Sculpture, 118.
Cogen, Felix, Painting, 92.
Cohen, E., loans Water colors, 66.
Cohen, T. T., Drawings, 49.
Cohn, Louis H., & Co., Wall paper, 55.
Coindre, G. J., Etchings, 80.
Col, David, Painting, 93.
Cole, J. Foxcroft, Painting, 41.
Cole, J. G. (deceased), Painting, 43.
Cole, Thomas (deceased), Paintings, 18, 23, 29.
Cole, Vicat, Paintings, 61.
Coleman, C. C., Paintings, 30, 39, 40, 44, 45, 47.
Coleman, J. H., loans Painting, 39.
Collette, A., Paintings, 75, 78.
Collins, A. M., Son, & Co., Card mounts, 138.
Collins, G. W., Photographs, 140.
Colman, S., Paintings, 17, 25, 26, 27, 28, 30.
Colton, Zahm, & Roberts, Chromos, 56.
Colyer, Mrs. Laird, loans Sculpture, 47.
Colyer, V., Paintings, 23, 24.
Colyer, Vincent, loans Paintings, 29.
Colzmann, M., Paintings, 73, 74.
Comacho de Diaz, S., Scissor work, 133.
Coman, Mrs. C. B., Painting, 40.
Comein, Polydore, Statuary, 96.
Comte, P. C., Paintings, 73.
Conarroe, G. W., Painting, 18.
Congdon, H. M., Designs, 34, 35.
Coninck, P. de, Painting, 72.
Connelly, P. F., Sculpture, 21, 51, 52.
Connor, E. S., loans Paintings, 38.
Conrad, A., Painting, 83.
Conshohocken Stone Co., Stone work, 9.
Constable, John (deceased), Painting, 61.
Constant Rebecque, W. C. de, Painting, 103.
Conti, Alessandro, Sculpture, 119.
Continental Bank Note Co., Engraving, 59.
Cooke, Edward William, Paintings, 61.
Cookson, W. S., loans Water color, 66.
Cooper, P. F., Painting, 21; loans Painting, 38.
Coosemans, Joseph Theodore, Painting, 92.
Cope, C. W., Paintings, 61; Engraving, 67.
Copley, J. S. (deceased), Portraits, 19.
Corbellini, Quintilio, Sculpture, 119.
Cordero, Juan, Painting, 123.
Cordier, C., Bronzes, 74, 76, 79.
Cornienti, Cherubino, Painting, 111.
Coroenne, H., Painting, 74.
Correa, Nicolas, Painting, 123.
Cortazzo, O., Painting, 55.
Cortès y Cordero, E., Painting, 129.
Corti, Sculpture, 110.
Cosens, F. W., loans Painting, 63.
Costenoble, Charles, Sculpture, 90.
Coto, Luis, Painting, 123.
Couder, E. G., Painting, 77.
Courbet, Gustave, Painting, 38.
Courdouan, V., Painting, 74; Pastel, 79; Water color, 81.
Cox, David, jr., Water colors, 65.
Cox, Townsend, loans Painting, 26.
Cox, W. A., Miniatures, 137.
Coykendall, S. D., loans Painting, 31.
Craeyvanger, R., Painting, 102.
Craig, Thos. B., Painting, 46.
Crane, D. A., loans Painting, 70.
Crauk, G., Sculpture, 76.
Crawshay, R., Photographs, 141, 142.
Cremer, J., Photographs, 137, 143.
Crepinet, A., Designs, 82.
Cresswell, W. N., Paintings, 69, 70, 71.
Creswick, Thomas (deceased), Painting, 61.
Croff, Giuseppe, Sculpture, 118.
Croff & Camp, Designs, 34.
Crofts, E., Painting, 61.
Cropper, J., loans Painting, 50.
Cropsey, J. F., Paintings, 18, 29, 31.
Cross, J. K., loans Painting, 64.
Crowe, Eyre, Paintings, 61.

Crowley, Henry, loans Water color, 66.
Cummings & Sears, Designs, 32, 33, 37.
Cunaeus, C., Paintings, 100.
Curzon, A. de, Painting, 75.
Curzon, A. F. de, Painting, 72.
Curzon, P. A. C., Painting, 72.
Cusachs, P., Sculpture, 32.
Cuypers & Stolzenberg, Engravings, 103.

D.

Dahl, Hans, Painting, 109.
Dallmeyer, J. H., Photographs, 141.
Dal Negro, Pietro, Sculpture, 118.
Dalou, J., Sculpture, 77.
Damasceno, J. dos Passos, Drawing, 121.
Dameron, E., Painting, 74.
Dameron, E. C., Painting, 77.
Damis y Cortés, Joaquin, Paintings, 128.
D'Amore, Sculpture, 117.
Dandoy, Armand, Painting, 92.
Daniell, William (deceased), Painting, 61.
Daniels, G. F., Painting, 40.
Danse, Aguste, Engravings, 98.
Darley, F. O. C., Water color, 28; Drawings, 54.
Darley, Mrs., loans Painting, 21.
Darrah, Mrs. S. T., Paintings, 39, 42; Drawings, 49.
Dash, M. B., loans Painting, 29.
Daubigny, Karl, Paintings, 74, 79.
Daubigny, K. P., Painting, 75.
Dauge, Franz, Decorated faience, 97.
Dauriac, Henry, Painting, 92.
Davis, James, loans Painting, 41.
Day, F., Paintings, 69, 70, 71.
Day, F. O., loans Painting, 38.
De Baerdemaeker, Felix, Paintings, 94, 95.
Debat, P. E., Painting, 78.
De Beughem, Count Chas., Paintings, 93, 94.
De Biseau, Aristide, Paintings, 92, 93.
De Blas del Prado, Paintings, 128.
Deblois, Ch., Engraving, 80.
De Blois, F. B., Paintings, 41, 43.
De Burbure, L., Paintings, 93, 95.
De Bylandt, Count Alfred, Painting, 92.
Decamilly, Carving, 135.
De Crano, F. F., Painting, 20.
De Curte, Louis, Architectural drawing, 98.
De Forest, H. G., loans Painting, 20.
De Franchimont, Mrs. Emilie, Painting, 94.
De Golier, Miss, Painting, 25.
De Groot, Guillaume, Statuary, 96.
De Groux, Charles (deceased), Painting, 95.
De Haas, J. H. L., Painting, 38.
De Haas, M. F. H., Paintings, 17, 30, 31.
De Heuvel, Theodore, Painting, 92.
Deiker, J., Painting, 84.
Deininger, C. H., Portrait, 86.
De Jong, G., Photographs, 103.
Dekeghel, Jules, Paintings, 93, 95.
De Keyser, Albert, Painting, 93.
De Keyser, Nicaise, Paintings, 92, 94.
Delamater, R. S., Photographs, 137.
Delauney, A., Engraving, 81.
Delavan, J. S., loans Painting, 39.
Delden, E., Photographs, 142, 143.
Della Libera, Giov. B., Paintings, 115, 116.
Della Valle, N., Painting, 113.
Delobbe, F. A., Painting, 74.
De Loose, Basile, Painting, 93.
Del Panta, E., Sculpture, 114.
Del Sarto, Andrea, Painting, 38.
De Luce, P., Painting, 24.
Demannez, Joseph, Drawings, 98.
De Martino, Painting, 121.
De Mayora, Mrs., Painting, 124.
De Meester, Raymond, Paintings, 92, 94.
De Mol, Adolphe, Decorated faience, 97.
Demorest, W. J., Chromos, 56.
D'Epinay, Prospére, Sculpture, 60.
De Pratere, Edmond, Painting, 92.
De Rose, A. L., Drawings, 49.
De Santis, Guglielmo, Paintings, 114, 115.
De Schamphelaer, E., Paintings, 92, 93.
Deshayes, C., Paintings, 75, 78.
De Silva, A., Photographs, 140.
De Simpel, Bruno Alphonse, Painting, 94.
De St. Cyr, Georges, Painting, 92.
Destrée, J. J., Painting, 102.
Deutsch, R. von, Paintings, 83.
Devaux, F. A., Sculpture, 75.
Deventer, J. F. van, Painting, 102.
Deventer, W. A., Painting, 102.
De Vigne, Miss Emma, Painting, 93.
De Vigne, Miss Malvina, Painting, 93.
De Villez, Louis Henri, Statuary, 96.
Devrez, D. H. L., Designs, 82.
De Witte, Painting, 71.
De Woelmont, Gustave, Statuary, 96.
De Wolf, J. L., loans Painting, 42.
Dexter, T. C. A., loans Painting, 38.
Diaz, Josefa, Paintings, 122.
Diaz, O., Photographs, 132.
Dibley, George, loans Painting, 65.
Di Chierico, Sculpture, 117.
Dickinson, Mrs. M. L., loans Paintings, 21, 39.
Dielitz, K., Painting, 84.
Dies, Cesare, Painting, 115.
Dies, Emilio, Sculpture, 119.
Dietrich, A., Painting, 85.
Dietrichson, Mrs. M., Painting, 105.
Dietz, Th., Painting, 83.
Diez, J., Painting, 129.
Dillens, Adolphe, Painting, 94.
Dinger, F., Engraving, 86.
D'Inghuem, Le Bailly, Engraving, 99.
Dini, Ernesto, Sculpture, 111, 114, 115.
Dix, C. Templeton, Painting, 23.
Dixon, Chief Justice, loans Sculpture, 44.
Dobbins, R. J., Contractor, 9.
Dobson, William C. T., Painting, 61.
Dodd, Miss Belle, loans Painting, 46.
Dodd, S. M., loans Painting, 39.
Dolan, Thomas, loans Painting, 44.
Doll & Richards, loan Painting, 41.
Dolph, J. H., Paintings, 17, 29.
Domenichino, Painting, 37.
Donaldson, Andrew B., Painting, 61; Water color, 66.
Doolin, Walter, Sculpture, 60.
Doolittle & Cortelyn, Drawings, 49.
Doolittle, E. S., Illumination, 49.
Doremus, Photographs, 140.
Doublemare, A., Bronzes, 77, 81.
Douglas, James, loans Sculpture, 51, 52.
Doulton, Henry, & Co., Sculpture, 60.
Doux, Mrs. L., Painting, 78.
Douzette, L., Painting, 83.
Dowager Countess of Westmoreland, loans Painting, 65.
Drake, H., loans Water color, 66.
Drummond, C. A., loans Painting, 70.
Du Bois, C. E., Paintings, 17, 39.
Dubos, Miss A., Paintings, 74, 78.
Dubouchet, H., Painting, 74; Engravings, 80, 81.
Dubucand, A., Sculpture, 78.
Dubufe, E., Painting, 38.
Dudley, H., Designs, 32, 33, 34.
Dumaine, Gregorio, Painting, 123; Statuary, 124.
Dumaresque, A., Painting, 74, 75.
Dumas, Em., Water color, 79.
Dunbar, A., loans Water color, 66.
Duncan, David, loans Water colors, 65.
Duncker, A., Engraving, 86; Chromo, 86.
Dunlap, William, Painting, 50.
Dupres, L. Victor, Painting, 72.
Dupré, Victor, Painting, 75.
Duque, E., Photographs, 131, 132.
Duran, Carolus, Painting, 73.
Durand, A. B., Paintings, 17, 18, 20, 31; Engravings, 59.
Durand, F. F., Painting, 27.

Durand, John, loans Water color, 49.
Dürer, Albert, Painting, 38.
Durst, A., Paintings, 78, 79.
Durst, M., Sculpture, 77.
Duval, J., Painting, 77.
Duval, V., Painting, 38.
Duverger, T. E., Paintings, 75.
Dwyer, Edward, Inlaid work, 56.

E.

Eakins, Thos., Painting, 18, 24, 46; Drawings, 49.
Earle & Fuller, Design, 33, 36, 37.
Earle & Sons, loan Painting, 17.
Eaton, J. O., Paintings, 25, 26.
Eaton, Mrs. J. O., loans Painting, 26.
Eberhardt, W., Painting, 45.
Ebersbach, J. E., Painting, 102.
Eckardt, C., Paintings, 104.
Eckenbrecher, Th. V., Painting, 85.
Eckhorst, B., Paintings, 135.
Eddy, G. F., Painting, 48; Drawings, 49.
Eder, F., Paintings, 129.
Edgar, Lydia, Photographs, 137.
Edge Moor Iron Co., Iron work, 9.
Edson, Paintings, 70, 71.
Edson, A., Paintings, 69.
Edwards, Edwin, Engravings, 67.
Eerelman, O., Painting, 100.
Egenberger, J. H., Painting, 100.
Eggert, S., Painting, 85.
Eichelberg, W. H., Painting, 102.
Eisenbrey, W. H., loans Painting, 21.
Ekström, P., Painting, 105.
Elias y Mascaró Ramon, Statuary, 127.
Eliot, C. W., loans Painting, 18.
Eliot, G., Pastels, 81.
Eliot, Mrs. S. A., loans Painting, 18.
Elkins, H. R., Painting, 45.
Elliot, C. L. (dec'd), Paintings, 21, 24, 30, 46.
Ellis, J. C., Drawing, 54.
Elmore, Alfred, Paintings, 61.
Elorriaga, R., Painting, 130.
Elwell, D. J., Painting, 41.
Elwes, H. T., loans Painting, 64.
Engl, Hugh, Painting, 88.
England, W., Photographs, 141.
Engström, W. O., Paintings, 105.
Enneking, J. E., Painting, 41.
Enriquez, Nicolas, Painting, 123.
Ens & Greiner, Porcelain paintings, 86.
Entrekin, W. G., Enameler, 138.
Epinay, Cav., Sculpture, 110.
Epp, R., Painting, 54.
Eppinghousen, C., Designs, 35.
Erdmann, M., Painting, 84.
Erpikum, Painting, 37.
Eschke, H., Painting, 84.
Escudero y Espranceda, José, Painting, 123.
Essen, J. C. van, Painting, 103.
Este, Mary Goddard, Sculpture, 50.
Etching Club, Etchings, 67.
Etex, Antoine, Photographs, 82.
Etty, William (dec'd), Painting, 61.
Evans, E. D., Photographs, 140.
Evans, G. & W. P., Chairs, 139.
Everdingen, A. van, Painting, 101.
Eversen, A., Painting, 103.
Evershed, Arthur, Engravings, 67.
Ewan, Jas., loans Painting, 71.
Ewers, H., Painting, 84.
Excelsior Brick Company, Stone work, 9.
Eyre, M. Dickerson, Sculpture, 53.
Ezekiel, M., Plaster, 86; Sculpture, 40.

F.

Faas, Frederick, Engraving, 58.
Faber du Faur, Otto von, Painting, 85.
Faber, Hermann, Drawings, 49.
Fabronius, D. C., Drawing, 54.
Faccioli, Raffaello, Painting, 115.
Faed, Thomas, Paintings, 61.
Fagerlin, F. T., Paintings, 105, 106.
Fahey, E. H., Water color, 66.
Fahlgren, C. A., Painting, 106.
Fahnestock, H. C., loans Painting, 17.
Fairfax, J. S., Designs, 36.
Faivre-Duffer, L. S., Painting, 73.
Falcini, Andrea, Mosaic tables, 112.
Falck, Otto F., & Co., Stained glass, 53.
Falconer, J. M., loans Paintings, 19, 20, 25, 27.
Fantachiotti, Cesare, Sculpture, 113.
Farbarius, F. W., Painting, 83.
Farmers' and Mechanics' Bank, loans Painting, 23.
Farrer, H., Paintings, 25, 26, 27.
Farrer, M. M., loans Painting, 40.
Faser, C., Architectural gilt frame, 59.
Fassett, Mrs. C. Adèle, Painting, 46.
Fassin, Adolphe, Statuary, 95, 96.
Fattori, Giovanni, Paintings, 113, 114, 115.
Faull, John A., loans Painting, 44.
Faustini, Modesto, Painting, 113.
Fehmer, Carl, Design, 37.
Felix, Eugene, Painting, 89.
Fell, J. G., loans Painting, 40.
Félon, Joseph, Sculpture, 74, 76, 77; Engravings, 79.
Fenas, R., Monuments, 132.
Fenn, H., Paintings, 25, 26, 27, 28.
Fenton, Joseph, loans Painting, 65.
Fernandez Cuevas, P., Painting, 133.
Fernandez, J., Statuary, 124.
Fernbach, Henry, Designs, 33, 34.
Fernbach & Kendall, Design, 34.
Ferrando, Salvador, Painting, 123.
Ferraro, Filippo, Sculpture, 111.
Ferrez, M., Photographs, 144.
Ferris, S. J., Drawing, 54; Etchings, 59.
Ferry, G., Painting, 78.
Fery, Miss L., Painting, 78.
Fery, Miss V., Painting, 74.
Fettweiss, C. L., jr., Sculpture, 52.
Feyen, Eugène, Painting, 72.
Feyen, Perrin, Paintings, 72, 76.
Fichel, E., Painting, 54.
Fick, Frederick, Monument, 59.
Fidanza, F. A., Photographs, 144.
Field, B., loans Painting, 19.
Field, R. (deceased), Drawings, 49.
Field, W., Painting, 61.
Figueredo, Pedro Americo de, Paintings, 121
Figueroa, Gregorio, Painting, 123.
Fildes, S. Luke, Paintings, 61.
Fillans, Miss W., Sculpture, 44, 52.
Fine Arts, Provincial Academy of, Barcelona Drawings, 131.
Fine Arts, Academy of, Manilla, loans Paintings, 130.
Fine Arts, Academy of, Seville, loans Paintings, 129.
Fischer, Helene von, Painting, 83.
Fisher, Ellen T., Painting, 26.
Fitch, J. L., Painting, 20.
Fitzgibbon, J. H., Daguerreotypes, 138.
Fitzpatrick, A., & Co., Stained glass, 57.
Flagg, J. B., Painting, 29.
Flameng, Leopold, Etchings, 80, 81.
Flier, H. R. v. d., Painting, 101.
Flores, Rafael, Painting, 123.
Flores, S., Painting, 130.
Foerster, Edmund, & Co., Chromos, 56.
Foley, Miss M., Sculpture, 50, 51, 52.
Folingsby, G. F., Painting, 85.
Folsom, J. H., Photograph, 140.
Fontana, Roberto, Painting, 113.
Foot, S. A., loans Painting, 30.
Forbes, Edwin, Drawing, 54.
Forbes, J. C., Paintings, 69, 71; loans Painting, 70.
Formis, Achille, Paintings, 113, 115.
Formis, Augusto, Painting, 115.

Formis, Cav., Achille, Sculpture, 117.
Forster, W. E., loans Painting, 65.
Fortanet, E., Books, 131.
Foster, John, loans Painting, 41.
Fourmois, Theodore, Painting, 94.
Fowler, D., Paintings, 69, 70.
Fowler, T. T., Painting, 43.
Fox, George, loans Paintings, 63, 64, 65.
Fradelle & Marshall, Photographs, 141.
Fraikin, Charles Auguste, Statuary, 96.
Francolini, Tito, Mosaic tables, 112.
Franke, E., loans Painting, 17.
Franklin, Mrs. L. G., loans Painting, 38.
Fraser, J. A., loans Paintings, 70, 71.
Fraser, W. L., Paintings, 71.
Freake, Charles J., loans Painting, 65.
Fredericks, A., Paintings, 26.
Freeman, A., Photographs, 140.
Freeman, J. E., Painting, 41.
French, D. C., Sculpture, 42.
French, D. M., Sculpture, 42.
French, J. A., Photographs, 140.
French, Wm. H., Plaster ornaments, 59.
Frentz, R., Painting, 134.
Frey, W., Paintings, 84.
Frickenhaus, Otto, Designs, 56.
Friedländer, Camilla, Painting, 90.
Friedländer, Fred., Paintings, 88, 90.
Friedrich, C. F., Water colors, 86.
Fries, B., Paintings, 83.
Frilli, Antonio, Sculpture, 110, 111, 116.
Fripp, A. D., Water colors, 66.
Frith, F., Photograph, 142.
Frith, Wm. Powell, Paintings, 61.
Frith, W. P., loans Painting, 64.
Fritsch, Melchior, Paintings, 89, 90.
Frost, Sketches, 57.
Frothingham, Mrs., loans Paintings, 69, 70.
Frothingham, Mrs. G., loans Painting, 71.
Fuentes, Xavier, Cups, 127.
Fumagalli, Michel Angelo, Painting, 111.
Fumei, Pietro, Sculpture, 118.
Funeo, Pietro, Sculpture, 111.
Furness, H. H., loans Paintings, 18, 44, 45.
Furness, Rev. W. H., loans Painting, 45.
Furness, W. H., jr. (dec'd), Paintings, 18, 44, 45.
Fuseli, Henry (deceased), Painting, 61.
Fux, Joseph, Painting, 89.
Fyte, Painting, 71.

G.

Gabriel, Paul J. C., Painting, 95.
Gaffield, T., Photographs, 140, 141.
Gaillard, C. F., Engravings, 80.
Gaillard, F., Etchings, 80, 81.
Gaillard, S., Painting, 80.
Gainsborough, Thomas (dec'd), Painting, 62.
Gale, Miss, loans Painting, 71.
Galindo, R. E., Drawings, 49.
Galineau, J. A. de, Sculpture, 76.
Gallandt, L. A., Sculpture, 119; Mosaics, 120.
Galli, Rizzardo, Sculpture, 118, 119.
Galsworthy, J., loans Water color, 66.
Galvan, I. Ernest, Painting, 45.
Galvan, Mrs. S. M., Paintings, 44, 45.
Gambart, Ernest, loans Painting, 64; Water color, 66.
Gambrill & Richardson, Designs, 34, 35.
Garamendi, Bernabe de, Ivory carving, 127.
Garcia, Hispaleto Manuel, Paintings, 128.
Garcia Valladolid, I. G., Paintings, 128, 129.
Gardell, Miss Anna, Water colors, 107.
Gardner, Miss E. J., Paintings, 23, 46.
Gargollo, Julio, Painting, 123.
Garner, Mrs. M., loans Painting, 37.
Garnier, J., Painting, 77.
Garrido, Miss M. de la S., Painting, 129.
Garriga y Roca, M., Monuments, 132.
Gastaldi, Prof. Andrea, Painting, 114.
Gattinoni, Carlos, Paintings, 122.
Gaucherel, Leon, Etchings, 80, 81.
Gaul, Gustavus, Paintings, 89.
Gauthcrin, J., Sculpture, 76.
Gay, Edward, Painting, 30.
Gay, George, Decorated china and glass, 58.
Gay, Walter, Painting, 41.
Gay, W. Allen, Painting, 21.
Gebhardt, L., Paintings, 83.
Geibel, C., Painting, 84.
Gelabert y Hermano, R., Engravings, 131
Gelati, Prof. Lorenzo, Painting, 115.
Geldmacher, F. W., Photographs, 143.
Gempt, B. te, Paintings, 101, 102.
Genisson, Georges, Painting, 93.
Gentile & Co., Photographs, 140.
Gentile, Chieti, Sculpture, 118.
Geologica, C., Photographs, 144.
George-Mayer, Augustus, Paintings, 88,
Gérard, Joseph, Painting, 95.
Gérard, Theodore, Paintings, 93, 94, 95.
Gerardin, G., Sculpture, 53.
Gerboux, Aguste C., Painting, 92.
Gerimski, A., Paintings, 134.
Gerlach & Fromhagen, Photographs, 139.
Gerry, Miss E. J., loans Painting, 42.
Gerry, S. L., Painting, 42.
Gerson, W., Paintings, 134.
Gertinger, J., Photographs, 144.
Geyling, Ralph, Paintings, 89.
Gherardi, Goffredo, Mosaic tables, 112.
Ghetti, Antonio, Sculpture, 53.
Gibb, Jonas, loans Water color, 66.
Gibley, W., loans Water colors, 66.
Gibson, Geo., Stained glass, 53.
Gibson, John, Sculpture, 60.
Giddings, Thos., Frame, 59.
Gide, T., Paintings, 72, 75.
Gifford, Miss I. G., Sculpture, 30.
Gifford, R. Swain, Paintings, 20, 26, 27, 28, 3
Gifford, S. R., Paintings, 17, 18, 19, 22, 29, 30, 31.
Gignoux, R., Painting, 20.
Gilbert, S. D., Paintings, 27.
Gilbert, Sir J., Paintings, 62; Water color, 66.
Giles, George, loans Water colors, 65.
Gill, E., Painting, 62.
Gilli, Alberto, Painting, 111.
Gillies, Mrs. M., Water color, 66.
Gillott, Photo-engraving, 144.
Gilman, G. F., loans Painting, 22.
Gilmore, A., loans Painting, 69, 71.
Gioli, Francesco, Paintings, 114, 115.
Girard, N. J., Sculpture, 74.
Girardot, E. G., Painting, 62.
Gireux, Ernesto, Painting, 111.
Gisbert, A., Painting, 126.
Giuliani, Prof. Bartolomeo, Painting, 114.
Givins, Dr., loans Painting, 71.
Glaize, T. T. L., Painting, 75.
Gliber, James, Sculpture, 90.
Glibert, Albert, Painting, 95.
Gobelin Manufactories, The, Tapestries, 73.
Gobineau, de, Sculpture, 79.
Goddard, Wm., loans Painting, 19.
Godebski, Cyprien, Statuary, 96.
Goemans, Gustave, Paintings, 93, 94.
Gomez, Gumersindo, Wood carving, 127.
Gonzalez, J., Painting, 123.
Gonzalvo, Perez Pablo, Paintings, 126, 128.
Good, F. M., Views, 142.
Goodall, E. A., Water colors, 66.
Goodall, Frederick, Painting, 62.
Goodall, Walter, Water color, 66.
Goojoff, Nicolas, Statuary, 135.
Gookins, J. F., loans Painting, 40.
Goossens & Sons, Statuary, 103.
Gordon, G. F., loans Paintings, 30.
Gordon, Joseph C., Sculpture, 53.
Gordon, Robert, loans Paintings, 17, 19, 24, 26, 28, 29, 31.
Gori, Lorenzo, Sculpture, 115.
Goth, Anthony, Interior decoration, 55.
Gould, M. S., Sculpture, 39.
Gould, T. R., Sculpture, 38, 39.

Government of Ontario, loans Painting, 69.
Gower, Lord Ronald Leveson, Sculpture, 60; loans Water colors, 66.
Grabowski, Andrew, Painting, 89.
Graef, Jos., Sculpture, 52.
Graf Bros., Chromo-lithographs, 56.
Graf, C., Engravings, 86.
Graf, G., Painting, 84.
Graf, Lewis, Paintings, 88, 89, 90.
Graham, Peter, Paintings, 62.
Graham, W., Painting, 39.
Granberry, Miss H. A., Painting, 29.
Granberry, Miss V., Painting, 20.
Grandschamp, P. de, Painting, 77.
Grant, Sir Francis, Paintings, 62.
Graves, J. A., Photographs, 140.
Gray, G. A., loans Paintings, 70, 71.
Gray, H. Peters, Paintings, 19, 23, 31.
Greatorex, Mrs. Eliza, Drawings, 49.
Greene, E. D. E., Painting, 19.
Greenough, Mrs. H., loans Painting, 42.
Gregory, J. Elliot, Painting, 39.
Greive, J. C., jr., Paintings, 101, 102.
Grenier, N. N., Photographs, 142.
Griffin, Julia, Sculpture, 30.
Grimelund, I. M., Painting, 109.
Groesbeck, David, loans Painting, 17.
Groiscillier, M. de, Painting, 73.
Groot, J. de, Painting, 102.
Groozinsky, P., Painting, 134.
Gruger, Pearson E., Marble work, 56.
Gruijter, W., jr., Painting, 100.
Grund, J., Paintings, 85.
Guarnerio, Pietro, Sculpture, 113, 116, 118.
Guastavin, R., Monuments, 132.
Gubleman, T., Photographs, 139.
Gude, Hans, Paintings, 108.
Gudin, T., Paintings, 37, 78.
Guerber, Miss S. L., loans Painting, 38.
Guerra, Gabriel, Statuary, 124.
Guffens, Godefroid, Painting, 94.
Gugler, H., Engraving on steel, 59.
Guillon, A., Paintings, 72, 75.
Guisasola, F., Painting, 130.
Gunnison, Miss M., Painting, 44.
Gurney, J. J., Photographs, 139.
Gutekunst, F., loans Painting, 18; Photographs, 138.
Güterbock, L., Painting, 83.
Guthers, Carl, Paintings, 43, 45.
Gutierrez, Felipe, Painting, 123.
Gutierrez, Rodrigo, Painting, 123.
Guy, S. J., Paintings, 19, 20, 22.
Gzowski, C. S., loans Painting, 69, 70.

H.

Haanen, Mrs. A., Painting, 100.
Haanen, Remi van, Painting, 90.
Haas, Augustus, Electrotypes, 58.
Haber, R. von, Painting, 83.
Hacker, H., Paintings, 85.
Hackett, Miss C. C., loans Painting, 24.
Haden, F. S., Engravings, 67.
Häes, D. Carlos, Paintings, 125.
Hafström, A. G., Painting, 106.
Hägg, J., Water colors, 107.
Haghe, Louis, Water colors, 66.
Hagn, L. von, Painting, 83.
Hague, G., loans Painting, 70.
Hague, H., loans Paintings, 70, 71.
Hahn, J., Painting, 83.
Haight, Ch. C., Design, 34.
Halauska, Lewis, Painting, 88.
Hale, Ellen D., Painting, 42.
Hale, Mrs. E. E., loans Painting, 42.
Hall, Photographs, 140.
Hall, Dr., loans Painting, 69.
Hallatz, F., Paintings, 83, 84.
Hallet, William T., Designs, 35.
Hamilton, H., Painting, 29.
Hamilton, J., Painting, 17.
Hamilton, W. A., loans Painting, 30.
Hamilton, W. H., loans Painting, 31.
Hammer, H. J., Painting, 104.
Hammer, W., Paintings, 104.
Hancock, H., Painting, 71; loans Painting, 70.
Handley, M., Sculpture, 51.
Hanedoes, L., Painting, 101.
Hanno, W. von, Painting, 109.
Hanoteau, H., Painting, 72.
Hanrath, T., Painting, 100.
Hansch, Anthony, Paintings, 89, 90.
Hanse, A. L., Chemicals, 139.
Hanson, W., Photographs, 141; Paintings, 142
Harach, Count von, Paintings, 84, 85.
Harding, Painting, 42.
Hardinge, Viscount, loans Painting, 62.
Hardy, A. N., Photographs, 138.
Hardy, Heywood, Painting, 62.
Hargitt, E., Water color, 66.
Harley, J. S., Engraving, 58.
Harling, E. von, Painting, 84.
Harmon, Amelia, Painting, 28.
Harnisch, A. E., Sculpture, 52.
Harpignies, A. X., Painting, 73.
Harrah, C. J., loans Painting, 47.
Harring, J. C., Photographs, 139.
Harriott, S. J., loans Painting, 20.
Harris, Edward, loans Paintings, 18, 75.
Harrison, Henry, Painting, 46.
Harrison, Mrs. Joseph, loans Paintings, 24, 46.
Hart, Jas. M., Paintings, 24, 31.
Hart, Wm., Paintings, 21, 25.
Hartley, J. S., Sculpture, 53.
Hartwell, Swasey, & Co., Design, 37.
Hartwick, Hermann, Drawings, 49.
Harvard University, loans Paintings, 19, 41, 42.
Haseltine, J. H., Sculpture, 51.
Haseltine, W. S., Paintings, 24, 46.
Hatch, Walter, loans Painting, 24.
Hatfield, R. G., Design, 35, 36.
Hawk, S., loans Painting, 30.
Hawkins, Rush D., loans Painting, 27.
Haworth, J., Photo-apparatus, 138.
Hayden, Albert, loans Painting, 29.
Hays, W. J. (deceased), Painting, 30.
Hays, Mrs. W. J., loans Painting, 30.
Hayter, Sir George, Painting, 62.
Hazeu, A. C., Painting, 101.
Hazzard, R. T., Decorations, 55.
Hazzard, W. B., Rollers, 137.
Heade, M. J., Painting, 24.
Healy, G. P. A., Paintings, 17, 22, 23, 39, 44, 46.
Hearth, S. D., Painting, 85.
Heath, V., Photographs, 141.
Heath & McKendrick, Plaster figures, 59.
Heaton, A. G., Painting, 46.
Heck, R., Painting, 83, 85.
Hecker, G. V., loans Painting, 25, 29.
Hedges, D., Photographs, 141.
Heemskerk, V. B. E. v., Paintings, 100, 102.
Heerebaarth, G., Painting, 101.
Hegcr, H., Painting, 84.
Heid, Dr., Photograph, 143.
Heijl, M., Painting, 102.
Heiler, E., Studies, 143.
Hellquist, H., Water color, 107.
Hemenway, Mrs. C. P., loans Painting, 25.
Henderson, A., Photographs, 142.
Henderson, A. L., Photographs, 141.
Henig, R., Cards, 143.
Henkes, Gerke, Painting, 101.
Hennessey, W. J., Paintings, 25.
Henning, H. D. A., Sculpture, 50.
Henry, E. L., Painting, 20, 24, 29.
Henschell, Painting, 121.
Herdman, R., Painting, 62.
Hering, G. E., Painting, 62.
Her Majesty the Queen of England, loans Paintings, 62, 63, 65.
Hermelin, Baron O., Paintings, 106.
Hernandez, Ignacio, Painting, 123.
Herpin, L., Paintings, 76, 78.
Herrick, H. W., Drawings, 48.

Herring, Chas. P., loans Painting, 47.
Herst, A., Paintings, 77; Water colors, 79, 81.
Hertel, A., Painting, 84.
Herter, E., Bronzes, 85.
Hertzog, J., Chemicals, 143.
Herzberg, A. G., Painting, 106.
Herzog, H., Paintings, 23, 45.
Heseltine, J. P., Engraving, 67.
Hesler, A , Photographs, 138.
Hess, G., Sculpture, 32, 45, 47.
Hess, Julius, Design, 35.
Hetzel, Geo., Painting, 22.
Hewett, P. G., loans Water color, 66.
Hicks, G. E., Painting, 62.
Hicks, Thomas, Paintings, 17, 24, 30.
Hiddemann, F., Paintings, 84.
Higgins, A. Foster, loans Painting, 26.
Higgins, Geo. F., Painting, 40.
Hildebrand, E., Painting, 84.
Hildebrand, H., Engravings, 80.
Hill, Capt., loans Painting, 63.
Hill, J. W., Paintings, 26, 27, 28.
Hill, Thomas, Paintings, 22, 44, 45.
Hillemacher, E. E., Painting, 72.
Hillemacker, E., Painting, 75.
Hills, Thos. H., loans Paintings, 62, 63.
Hilton, William (deceased), Painting, 62.
Hilverdink, E. A., Painting, 102.
Hilverdink, J., Painting, 101.
Hinckley, T. H., Painting, 41.
Hirrlinger, C. W., Enamels, 55.
Hirsch, Alphonse, Paintings, 74, 75.
Hirschfelder, S., Painting, 84.
Hirsh, J. M., Photographs, 145.
Hlavaeck, Anthony, Paintings, 88, 90.
Hoadley, J. C., loans Sculpture, 51.
Hobbs, J. H., & Son, Designs, 32, 35.
Hoch, I., Painting, 70.
Höckert, J., Painting, 106.
Hodges, Jane M., loans Painting, 29.
Hodgson, J. E., Paintings, 62.
Hoe, R., loans Paintings, 30, 31.
Hoefel, Ferd., Painting on glass, 56.
Hoegel, Minna, Painting, 88.
Hoen, A., & Co., Chromo-lithographs, 56.
Hoffman, J., Painting, 89; Water colors, 90.
Holbrook, H. J., Portrait, 18.
Holl, F., Paintings, 62.
Hollander, H., Painting, 101.
Holler, H., Photographs, 139.
Hollerbach & Duffenbach, Mouldings, 56.
Hollis, G. W., loans Painting, 29.
Holly, H. Hudson, Design, 35.
Hollyer, Samuel, Engravings, 58, 59.
Holm, P. D., Paintings, 106.
Holmes, P. H., Painting, 43.
Holmlund, Miss J., Painting, 106.
Holst, J. G. von, Paintings, 106.
Holyland, J., Views, 139.
Homer, Winslow, Paintings, 22, 25, 26, 28.
Hook, James Clarke, Painting, 62.
Hoover, Jos., Chromo-lithographs, 56.
Hoppin, W. J., loans Painting, 19.
Hopson, Wm., Imitations of woods, 56.
Horavsky, A., Painting, 134.
Hore, Wm., Inlaid work, 55.
Horsfall, James, loans Water color, 66.
Horsley, John Callcott, Paintings, 62.
Horst, L., Painting, 84.
Houseworth, T., Photographs, 138.
Houzé, Florentin, Painting, 94.
Hove, B. J. v., Painting, 102.
Hovey, E. F., Photographs, 139.
Howard-Brunet, P. A., Painting, 75.
Howe, F., Design, 32.
Howe, Frank M., Designs, 35, 37.
Howe, J. C., loans Painting, 41.
Howell, J. R., Photographs, 140.
Howells, H. C., loans Painting, 64.
Howland, W. H., loans Painting, 70.
Huas, P. A., Paintings, 73, 77.
Hubbard, R. W., Paintings, 17, 18, 20.
Huber, Ralph, Painting, 90.
Hudson, F., Photographs, 141.
Hugard, C., Painting, 78.
Hughes, Arthur, Painting, 62.
Hughes, Mrs. A. S., loans Painting, 47.
Hunt, Holman, Painting, 62.
Hunt, H. A., loans Water color, 66.
Hunt, R. M., Design, 33.
Hunt, William, Painting, 24.
Hunt, W. M., Painting, 42.
Hunter, Colin, Painting, 62.
Hunter, Thomas, Chromo-lithographs, 56.
Huntington, D., Paintings, 18, 22, 30, 31.
Hurtel, P., Drawings, 49.
Hutinet, D., Photographers' cards, 144.
Huybers, J. D., Painting, 100.
Huygens, François J., Paintings, 92, 94.
Hyatt, Mrs. A., loans Painting, 49.
Hyatt, Mrs. Della, Drawings, 49.

I.

Ibarra, José, Painting, 124.
Inman, Henry, Paintings, 24, 39.
Instituto de Segunda Enscnanza, Photographs, 132.
Irving, J. B., Paintings, 20, 22, 24.
Israels, J., Painting, 100, 101.
Itasse, A., Sculpture, 76, 81.
Ives, C. B., Sculpture, 32.

J.

Jacobi, Paintings, 69, 70, 71.
Jacobi, C., Prints, 143.
Jacobs, Jacob, Painting, 94.
Jacobsen, S., Paintings, 108, 109.
Jacomin, A. L., Paintings, 73, 79.
Jacomin, H., Painting, 75.
Jacquier, Eli, Sculpture, 50.
Jadin, E., Painting, 73.
Jaeckel, H., Painting, 83.
Jager, J., Photographs, 144.
James, Frederick, Painting, 23.
James, H., loans Painting, 29.
Jameson, R. C., loans Painting, 71.
Japy, L., Painting, 77.
Jaquard, C., Painting, 77.
Jaquemart, J., Etchings, 80, 81.
Jarvis, J. W., Paintings, 50.
Jarvis, Melicent, Painting, 43.
Jay, J C., loans Portrait, 19.
Jeens, C. H., Engraving, 67.
Jenkins, J. J., Water color, 66.
Jennings, A. B., Designs, 33, 34.
Jennings, P., Photographs, 141.
Jernberg, A., Paintings, 106.
Jernberg, O., Painting, 106.
Jessup, M. K., loans Painting, 30.
Jessop, Thomas, J. P., loans Painting, 62.
Jewett, Geo. W., loans Painting, 47.
Jimenez, José, Painting, 123.
Jocelyn, N., loans Painting, 21.
Jocson, C., Sculpture, 130.
John, Joseph, Painting, 47.
Johns, C. M., Painting, 44.
Johnson, C. E., Painting, 62.
Johnson, David, Paintings, 18, 20, 23, 24.
Johnson, Eastman, Paintings, 18, 19, 20, 21, 22, 24, 29, 30.
Johnson, E. K., Water color, 66.
Johnson, F., Paintings, 20, 29.
Johnson, H., Water color, 66.
Johnson, Mrs. J. H., loans Sculpture, 47.
Johnson, Mrs. R. E., loans Painting, 22.
Johnston, A., Painting, 62.
Johnston, J. T., loans Paintings, 18, 19, 21, 22, 23, 25, 27.
Jones, A., Painting, 25.
Jones, H. Bolton, Painting, 21.
Jones, Miss, loans Painting, 21.
Jones, T. A., Painting, 62.

Joosten, D. J. H., Painting, 103.
Jopling, J. M., Water colors, 66.
Jopling, Mrs. Louise, Painting, 62.
Jordan, Lucas, Paintings, 126.
Jordan, R., Painting, 84.
Jotti, Prof. Carlo, Painting, 116.
Jover, F., Paintings, 126, 129.
Joy, A. Bruce, Sculpture, 60.
Judd, L. de V., loans Sculpture, 53.
Judson, Wm. D., loans Painting, 20.
Julia y Garcia, E., Photographs, 132.
Julio, E. B. D., Painting, 44.
Jundt, G., Paintings, 79.
Jungfer, A., Coins, medals, etc., 87.
Jungheim, C., Paintings, 83.

K.

Kaan, G., loans Drawing, 48.
Kallenberg, A., Paintings, 109.
Kane, Paul, Paintings, 69, 70.
Kappes, A., Painting, 31.
Kappis, A., Painting, 83.
Kappler, Tobias, Sculpture, 53.
Karelin, Photographs, 145.
Karpoff, Painting, 135.
Kate, H. F. C. Ten, Paintings, 101, 102.
Kate, J. Mari H. Ten, Paintings, 100, 102.
Kaufman, Theo., Paintings, 43, 45.
Kaufmann, A. & C., loan Painting, 38; Chromo-lithographs, 55.
Kay, W. F., loans Paintings, 70, 71.
Kayser, E., Painting, 54.
Keelhoff, François, Painting, 92.
Keep, S. H., loans Painting, 24.
Keith, Mrs. E. S., loans Painting, 41.
Kellen, D. v. d., jr., Paintings, 102, 103.
Kelley, Wm. J., Typography, 56.
Kelly, Thomas, English engravings, 59.
Kemble, Gouverneur, loans Painting, 18.
Kemble, Mr., loans Painting, 19.
Kemys, E., Sculpture, 30, 45.
Kendall, Edw'd H., Design, 35.
Kendall, Wm. B., loans Painting, 27.
Kendricks, D. T., Painting, 43.
Kensett, J. F. (deceased), Paintings, 17, 18, 24, 30, 31.
Kent, J. H., Photographs, 138.
Kenyon, W. W., loans Painting, 31.
Kerr, J. K., loans Painting, 69.
Kershaw, T., loans Paintings, 70, 71.
Kever, J. S. H., Painting, 102.
Key, J. R., Painting, 41.
Keymeulen, Emile, Paintings, 94, 95.
Kidd, Mrs. A. E., loans Painting, 37.
Kienlin, J., Paintings, 76.
Kiepert, H., Photographs, 142.
Kiewning, E., Photographs, 143.
King, Geo. W., Painting, 46.
King, Haynes, Painting, 62.
Kittredge Cornice Co., Iron work, 9.
Kjörbel, C. F., Painting, 106.
Klodt, Baron M., Paintings, 134.
Kluyver, P. L. F., Painting, 101.
Kneller, Sir Godfrey (dec'd), Portrait, 48.
Knight, C. P., Painting, 62.
Knight, E. C., loans Sculpture, 53.
Knight, J., Water color, 66.
Knoedler, M., & Co., loan Paintings, 38, 54, 55; Chromos and Engravings, 55, 59.
Knower, Mrs. B., loans Painting, 24.
Knowles, K., loans Painting, 63.
Knowles, R. M., loans Water colors, 66, 67.
Knudsen, C., Photographs, 144.
Knudsen, K., Photographs, 144.
Kock, Miss E., Painting, 78.
Köckert, F., Painting, 54.
Koekkoek, H., Painting, 100.
Koekkoek, H., jr., Paintings, 100, 101.
Koekkoek, W., Painting, 101.
Koerner, E., Painting, 83.
Koken, G., Painting, 83.
Kolkow, F. J. von, Photographs, 103.
Kollock, Miss M., Paintings, 22.
Kool, S., Painting, 100.
Kooznetzoff, Carving, 135.
Kornbeck, J., Paintings, 85.
Korzoochin, A., Paintings, 134.
Koskull, Baron A. G., Painting, 106.
Kosler, J., Photographs, 143.
Koster, E., Paintings, 100, 101, 102.
Kostra, Photographs, 145.
Kostrzewski, F., Painting, 134; Water color, 136.
Krassofsky, N., Paintings, 135.
Kratzer, Chas. von, Painting, 88.
Krausse, A., Engraving, 86.
Kreighoff, Painting, 69.
Kretschman, E. A., Sculpture, 44.
Kretzschmer, H., Paintings, 84.
Kroostasheff, T. S., Carving, 135.
Kruseman van Elten, Painting, 101.
Kuhnen, Victor, Painting, 92.
Kulle, J., Painting, 106.
Kunath, Oscar, Paintings, 38, 46.
Kuntz, G. A., Painting, 90.
Kurtz, W., Crayons, 55; Photographs, 137.
Kuwasseg, C. J., sen., Painting, 72.
Kylberg, Miss Regina, Water color, 107.
Kylberg, Miss Virginia, Water color, 107.

L.

Laar, Ulrica, Paintings, 84.
Labaer, Jean Jacques, Brass work, 97.
Lacretelle, E., Paintings, 77.
La Farge, J., Paintings, 17, 22, 25, 29.
Lafitte, Erneste, Paintings, 88.
Lage, Julia von der, Water color, 86.
Lagerholm, Miss W., Painting, 106.
Lagorio, L., Paintings, 135.
Laguillermie, F., Painting, 79; Engraving, 81.
Lagye, Victor, Painting, 93.
Laird, R. W., loans Painting, 70.
Lalande, Ch. de, Designs, 82.
Lalande, M., Crayon drawings, 79, 80, 81.
Lambdin, G. C., Paintings, 18, 25, 46.
Lambdin, J. R., Painting, 44.
Lambert, A. E., Painting, 77.
Lamotte, Engraving, 80.
Lampe, Louis, Painting, 94.
Lancaster, Mrs., loans Painting, 64.
Lance, George (deceased), Painting, 62.
Lance, G. E., loans Painting, 62.
Landelle, C., Paintings, 73, 77, 78.
Landseer, Sir E. (dec'd), Paintings, 62, 63.
Landy, J., Photographs, 138.
Lane, George W., loans Painting, 28.
Lang, Geo. S., Engravings, 59.
Lang, Louis, Painting, 39.
Lange & Bros., Inlaid show case, 55.
Langlet, Mrs. Caroline, Paintings, 92, 94.
Langley, H., loans Paintings, 70, 71.
Lanson, E., Sculpture, 76.
Lanthier, L. A., loans Painting, 20.
Laplante, Engravings, 81.
Laporte, E., Painting, 78.
Laporte, M., Painting, 74.
Largarjolt, F., Photograph, 144.
Larson, Miss Virginia, Water color, 107.
Lasch, C., Painting, 85.
Latham, J., & Co., Chromo-lithographs, 56.
Lauderbach, James W., Engravings, 58.
Lauer, Joseph, Painting, 91.
Laumans, Jean André, Statuary, 94.
Laurence, S., Painting, 63.
Laurent, H., Painting, 77.
Laurent, I., & Co., Photographs, 132.
Lawlor, John, Sculpture, 51.
Lawrence, Edwin, loans Painting, 62.
Lawrence, Mrs. B., loans Sculpture, 52.
Lawrence, Mrs. H. E., loans Painting, 20.
Lawrence, Rev. Arthur, loans Drawing, 48.
Lawrence, Sir Thomas (dec'd), Paintings, 63.

Lawrie, Alex., Paintings, 20, 31.
Lays, J. P., Painting, 74.
Lazzerini, Pietro, Sculpture, 110.
Lea, Anna M., Paintings, 23, 44, 46, 47.
Leask, A., loans Painting, 69.
Lebel, Edmond, Paintings, 72, 73, 76.
Lebrethon, Jules, Cameos and medallions, 55.
Le Brun, N., Designs, 35.
Lechene, A. J. B., Bronze, 79.
Le Clear, Thomas, Painting, 23.
Lecointe, Sculpture, 77.
Lee, E. P., & Co., Photographs, 141.
Leech, John (deceased), Drawings, 67.
Leech, Miss C. E., loans Pencil drawing, 67.
Lefèver, Edmond, Statuary, 96.
Legat, Leon, Paintings, 72, 73, 75.
Le Gendre, Leonce, Painting, 95.
Leggo, Dr. C., loans Painting, 70.
Lehman & Bolton, Engraving, 58.
Lehmann, Rudolph, Paintings, 63.
Leighton, Frederick, Painting, 63; loans Paintings, 63, 65.
Leighton, J., Engravings, 67.
Leland, C. M., loans Painting, 46.
Leland, Henry, Paintings, 43, 46.
Leleux, Armand, Paintings, 73, 75.
Lelli, Giovanni, Painting, 114.
Lelli, Giovanni Batt, Sculpture, 117.
Lely, Sir Peter, Paintings, 71.
Leonardi, Valewski, Mosaics, 52.
Leonhardt, Theo., & Son, Engraving, 58.
Lemere, Bedford, & Co., Photographs, 141.
Lemoch, C., Paintings, 134.
Lemus, E., Engravings, 131.
Lepesqueur, H., Paintings, 74.
Lerche, Vinc. St., Paintings, 108, 109.
Leschesne, Bronze, 81.
Leslie, C. R. (dec'd), Painting, 63.
Leslie, George D., Painting, 63.
Lesrel, A. A., Paintings, 72, 76.
Lessi, Luigi, Painting, 113.
Lestang, P. de, Water color, 79.
Leutze, E., Painting, 23.
Leutzinger & Sons, Photo-lithographs, 121.
Levasseur, J. G., Engravings, 80.
Leveux, Engravings, 80.
Levy, A., Photographs, 140.
Levy, Gustave, Engraving, 80, 81.
Levy, J., & Co., Transparencies, 142.
Levy, T. S., Designs, 32.
Lewis, A. J., Sculpture, 30.
Lewis, Chas. G., Engravings, 67.
Lewis, C. J., Painting, 63.
Lewis, E. D., Painting, 22.
Lewis, Miss Edmonia, Sculpture, 52, 59.
Lewis, J. Delaware, loans Painting, 52, 64.
Lewis, John, loans Painting, 62.
Lewis, John Frederick, Painting, 63.
Lewis, Juan, loans Painting, 22.
Lewis, T., Photographs, 140.
Leyendecker, F. M., Painting, 72.
L'Heureux, Designs, 82.
Lichtenfels-Edward, Chev., Paintings, 88, 89.
Liebert, Photographs, 143.
Liebert, A., Photograph, 143.
Lier, A., Painting, 84.
Lima, Victor Meirelles de, Paintings, 121.
Lindegren, Miss A., Paintings, 106.
Lindholm, B. A., Painting, 135.
Lindman, A., Painting, 106.
Lindström, C., Painting, 106.
Lingeman, L., Paintings, 100, 102.
Linn, Dr. S. H., loans Painting, 39.
Linton, J. D., Water color, 66.
Lippincott, W. H., Paintings, 24.
Liverpool, Corporation of, loans Painting, 65.
Llanos y Keats, Juan, Painting, 126.
Lockwood, Randolph, & Co., Boxwood, 56.
Lodigiani, Scipione, Painting, 111.
Loescher & Petsch, Photographs, 143.
Loison, P., Sculpture, 76.
Lombardi, Giovanni, Sculpture, 110, 111, Painting, 115.
London, Royal Academy of, loans Painting, 63.
Longfellow, E. W., Painting, 42.
Longfellow, W. P. P., Designs, 33, 37.
Lönnroth, F., Painting, 106.
Loop, H. A., Painting, 18.
Loop, Mrs. H. A., Painting, 23.
Lopez de Herrara, Painting, 123.
Lopez Valdemora Ortiz de Lascano, Senorita I., Drawings, 130.
Lorck, Carl J., Painting, 109.
Lord, Samuel, loans Painting, 64.
Lorne, Marchioness of, loans Water color, 67.
Lortet, L., Painting, 72.
Low, A. A., loans Painting, 24.
Loyd, Lewis, loans Painting, 62.
Lozano y Villarejo, M., Albums, 133.
Lucas, E., Paintings, 126, 128.
Lucca, Flaminio, Sculpture, 119.
Luccardi, Prof., Sculpture, 111.
Luce, C. S., Designs, 36, 37.
Luckhardt, F., Photographs, 144.
Luddington, C. H., loans Paintings, 29, 31.
Lugo, Provincial Com'n of, Photographs, 132.
Luminais, E. V., Paintings, 73, 74.
Lundberg, W., Photographs, 145.
Lundmark, A., Wood carvings, 105.
Lutteroth, A., Paintings, 85.
Lutyens, C., Painting, 63.
Lyman, Theo., loans Painting, 38.

M.

Maaten, J. J. van der, Painting, 101.
Macalister, W. E., loans Painting, 40.
Macauley, F., loans Painting, 44.
MacCallum, A., Painting, 63.
Maccari, C., Paintings, 38.
Machen, W. H., Paintings, 20, 46.
Machette, Mrs. E. V., loans Painting, 38.
Mackeprang, A., Paintings, 104.
MacKnight, Mrs. S., Paintings, 18, 29.
Maclaren, W., Painting, 63.
Maclise, Daniel (dec'd), Paintings, 63.
MacWhirter, J., Paintings, 63.
Madiol, Adrien Jean, Paintings, 93, 95.
Madrazo, Painting, 37.
Maghee, J. Holme, loans Painting, 25.
Magin Fita y Rovira, Terra cotta, 126.
Magni, Prof., Sculpture, 110.
Magni, Prof. Enrico, Sculpture, 115.
Magrath, W., Paintings, 25, 26, 27, 28.
Maignan, Albert, Painting, 72, 73.
Maillart, D., Paintings, 73, 78.
Makart, Hans, Paintings, 38, 88.
Malatesta, Cav. Prof. Narciso, Painting, 113.
Maldarelli, Federico, Paintings, 114.
Malfatti, Andrea, Sculpture, 110, 114.
Mali, C., Painting, 83.
Mallet, Joseph, Paintings, 79.
Malmström, C., Painting, 106.
Malyshef, Painting, 134.
Manchester, City of, loans Painting, 48.
Manchester, Duke of, loans Paintings, 63, 64; loans Water color, 66.
Manchola, Juan, Painting, 123.
Mancinelli, Prof., Painting, 115.
Mancini, Carlo, Painting, 115.
Manger, H., Bronze statue, 87.
Manufacturers' Ins. Co., loans Painting, 42.
Marai, Luigi, Sculpture, 110, 118.
Maraini, Adelaide, Sculpture, 110, 111.
Marc, W., Painting, 84.
Marcellin, E., Sculpture, 76.
Marchant, E. D., Painting, 40.
Marchesi, Salvatore, Painting, 114.
Marcy, L. J., Lanterns, 138.
Mariez-Currena, H., Photographs, 132.
Marin Baldo, J., Monuments, 132.
Maris, Willem, Painting, 101.
Markham, C. C., Painting, 25.
Marks, H., loans Painting, 31.
Marks, Henry Stacy, Paintings, 63.
Marozoff, A. B., Painting, 135.

Marroig, G., Painting, 122.
Marshall, A., Enamels, 141.
Marshall, W. E., Painting, 29; Engravings, 59.
Marshall, W. I., Photographs, 139.
Martegani, Alessandro, Sculpture, 110, 111.
Martens, W. J., Painting, 100.
Martin, Painting, 70.
Martin, E., Painting, 77.
Martin, F., Sculpture, 77; Bronze, 81.
Martin, H., Painting, 23.
Martin, Henry, Painting, 71.
Martin, Miss L. E., Painting, 43.
Martin, Mrs., loans Painting, 43.
Martin, Mrs. L. E., Drawing, 54.
Martin, T. M., Paintings, 69, 70, 71.
Martinez, E. J., Etchings, 131.
Marucelli, Pietro, Sculpture, 117.
Mason, George (dec'd), Painting, 63.
Mason, O. G., Photographs, 145.
Massachusetts Historical Society, loans Portrait, 19; Paintings, 48.
Masson, Miss A., Paintings, 72, 77.
Masure, J., Painting, 74.
Masurel, J. E., Painting, 101.
Maswiens, Joseph Louvain, Painting, 94.
Mateu, J. M., Lithographs, 131.
Mathew, C. P., loans Paintings, 62, 63.
Mathieu, O., Paintings, 77.
Matteucci, Luigi, Sculpture, 118.
Matthews, M., Paintings, 69, 70.
Matthews, W. T., Paintings, 17, 29.
Maura, B., Painting, 131.
Mauve, A., Painting, 102.
Max, Gabriel, Painting, 38.
Maxon, C., loans Painting, 63.
May, W., Water color, 66.
Mayer, A. L., Painting, 54.
Mayer, Chas., Engravings, 58.
Mayer, Constant, Painting, 18.
Mayer, F. B., Paintings, 39, 46.
Mayer, Ferd., Lithograph, 56.
Mayer, Louis, Painting, 89.
Mayer, T., Painting, 85.
Maynard, G. W., Paintings, 19, 20.
Mazza, Salvatore, Painting, 116.
McAllister, T. H., Apparatus, 139.
McAlphine, D. H., loans Painting, 25.
McArthur, J., jr., Design, 32.
McCagg, E. B., loans Paintings, 44, 46.
McCue, Hon. Alex., loans Painting, 20.
McDonald, Margaret, Paintings, 26, 27.
McDonald, W., Sculpture, 50.
McDougal, J., loans Painting, 26.
McEntee, J., Paintings, 20, 21, 22, 23, 29, 30, 31, 40.
McGregor, G. S., Graining, 56.
McIntyre & Co., Photographs, 139.
McLachlan, J., loans Painting, 71.
McMahon, H., loans Paintings, 69, 70, 71.
McMurtrie, H., loans Painting, 48.
McMurtrie, Miss L. B., Drawings, 48.
McNeely, W., loans Painting, 43.
McPherson, W. J., & Co., Stained glass, 57.
McRae, J. C., Engravings, 58.
Meczkowski, Photographs, 145.
Meeks, Eugene, Painting, 40.
Meerts, Franz, Painting, 94.
Meissner, E., Painting, 84.
Melander & Bro., Photographs, 138.
Melby, W., Painting, 104.
Melcher, J. L., loans Painting, 20.
Melida, Enrique, Painting, 126.
Mellée, A. L., Painting, 77.
Mellery, Xavier, Paintings, 93, 95.
Mencha y Rodriguez, F., Lithographs, 131.
Méne, P. J., Sculpture, 78, 79.
Merle, H., Painting, 54.
Mermet, C., Water color, 79.
Merry, B., Painting, 78.
Mesdag, H. H., Painting, 101.
Mesdag, H. W., Paintings, 100, 102.
Mesdag van Houten, Mrs., Painting, 100.
Messenger, T., loans Painting, 20.
Mestres, O., Monuments, 132.
Metropolitan Museum, loans Painting, 31.
Metti, Raimondo, Sculpture, 111.
Meuccei, Michele, Painting, 115.
Meunier, Miss G., Decorated faience, 97.
Meyer, F., Painting, 84.
Meyer, H., Sculpture, 53.
Meyer, James, jr., Penmanship, 56.
Meyer Von Bremen, Paintings, 55, 85.
Meyerheim, P., Painting, 84; Water colors, 86.
Meyers, Isidore, Painting, 95.
Meyers, J. W., Photograph, 140.
Meynen, F., Sculpture, 52.
Michel, Ernest B., Painting, 72.
Michis, Cataneo, Painting, 115.
Michis, Pietro, Paintings, 115, 116.
Middleton, S. G., Painting, 40.
Mifflin, Lloyd, Painting, 22.
Mignot, L. R. (deceased), Painting, 31.
Milbank, J. J., loans Painting, 19, 25.
Mildmay, Bingham, loans Painting, 63.
Miles, T. J., loans Paintings, 49.
Millais, John Everett, Painting, 63.
Millard, C. S., Paintings, 69, 70.
Miller, C., Paintings, 134.
Miller, Chas. H., Paintings, 17, 18, 19, 20, 23.
Miller, E. F., Water color, 49.
Miller, Mrs. J. M., loans Paintings, 18, 19.
Millet, F. D., Paintings, 24, 141.
Mills, J. M., loans Painting, 31.
Mills, Theodore A., Sculpture, 51.
Minigerode, Lewis, Painting, 88.
Minor, R. C., Paintings, 20, 24.
Miravent y Gatell, José, Paintings, 125, 127.
Mischenski, Photographs, 143.
Mitchell, E., loans Painting, 19.
Mitchell, Henry, Stone gems, 55.
Mitchell, J. A., Designs, 32, 36.
Mittermaier, Max, Stained glass, 57.
Moeller, F. G., Design, 32.
Moffitt, John M., Design, 35.
Moglia, Augusto, Mosaics, 119, 120.
Moia, Painting, 115.
Mole, J. H., Water color, 66.
Molinero, Antonio, Engraved marble, 127.
Molkenboer, W. B. G., Designs, 103.
Möller, Niels B., Paintings, 108, 109.
Molnar, J., Paintings, 83, 85.
Mols, Robert, Painting, 92, 95.
Monari, Alessandro, Sculpture, 111.
Monari, Prof. Carlo, Sculpture, 116.
Monginet, C., Painting, 78.
Monroy, Felix, Painting, 123.
Montalant, J. O. de, Paintings, 31, 40.
Montalba, Miss Clara, Water color, 66.
Montelatici Brothers, Mosaic tables, 112.
Montelatici, Giuseppe, Mosaic tables, 112.
Montenegro, Guadalupe, Painting, 123.
Montfallet, A., Paintings, 74, 75.
Montfallet, D., Painting, 72.
Monzon, T. B., Photographs, 144.
Moore, C. B., loans Painting, 37.
Moore, George, loans Water color, 67.
Moore, Henry, Paintings, 63.
Moore, H. H., Painting, 21, 43.
Moore, R. E., loans Paintings, 24, 31.
Moragas, M. G , Photographs, 132.
Moragas y Valero, Manuel, Paintings, 128.
Morales, Divino, Painting, 126.
Moran, Edward, Paintings, 20, 22, 24, 31.
Moran, J., Photographs, 140.
Moran, P., Paintings, 24, 47; Etchings, 59.
Moran, Thomas, Paintings, 23, 28, 46; Drawings, 54.
Moras, W., Painting, 84.
Moreau, A., Painting, 54.
Moreau, Vonthière, Bronze, 81.
Moreno y Galindo, T., loans Paintings, 125.
Morgan, E. D., loans Paintings, 17, 21, 24.
Morgan, George, Sculpture, 60.
Morgan, George D., loans Painting, 28.
Morin, Léonard, Painting, 75.
Morrell, Mrs. I. Robinson, Paintings, 21, 44.

Morrison, Alfred, loans Painting, 63.
Morrow, J. H., Photographs, 141.
Morse, S. F. B., Paintings, 19, 21, 50.
Mosher, C. D., Album, 139.
Motelli, Metello, Sculpture, 110.
Moulin, H., Sculpture, 78, 81.
Moullion, A., Painting, 77.
Moulton, B. S., & Co., loan Painting, 42.
Mount, W. S., Painting, 19.
Moxon, C., loans Paintings, 63, 64.
Mozley, Lewin, loans Painting, 63.
Mücke, C., Paintings, 84.
Mullen, W. W., loans Sculpture, 52.
Müller, Charles Leopold, Painting, 89.
Müller, R. A., Engraving, 58.
Mulready, William (dec'd), Painting, 63.
Mundhenk, A., Sculpture, 45.
Munger, Geo., Painting, 21.
Munier, E., Painting, 75.
Munsch, Leopold, Painting, 88.
Munsterhelm, M., Painting, 135.
Munthe, Painting, 108.
Munzig, G. C., Crayon, 54.
Muraton, A., Paintings, 38, 75, 78.
Muraton, Mrs. E., Paintings, 72, 73.
Muratory, José, Paintings, 122.
Murillo, Painting, 38.
Museo de San Tomas, Leaves, 133.
Museum of Fine Arts, of Madrid, loans Paintings, 125.
Musin, François, Paintings, 92, 95.
Mutrie, Miss A. F., Painting, 63.
Mutrie, Miss M. D., Painting, 63.
Myers, E. E., Designs, 35.
Myers & Hedian, loan Paintings, 38, 39.

N.

Naftel, P. J., Water color, 66.
Nakken, W. C., Paintings, 101, 102.
Naoomof, A., Paintings, 134.
Napoléon é Hijo, A. & I., Photographs, 132.
National Academy of Mexico, loans Painting, 123, 124.
National Bank Note Company, Bank-note engraving, 59.
National Chromo Company, Chromos, 56.
National Club, loans Painting, 71.
Navarrete, R., Painting, 130.
Navelot, Victor, Painting, 38.
Naya, E., Photograph, 143.
Naylor, J., loans Painting, 63.
Neagle, John, Paintings, 22, 23.
Nefflin, P. H., Painting, 26.
Nemes-Ransonnet, Eliza, Paintings, 89, 90.
Nesmith, H. E., loans Painting, 22.
Nesmith, J. J., loans Painting, 17.
Neustätter, L., Paintings, 85.
Newberry, Rose, Painting, 28.
Newbold, R., loans Water color, 66.
Newcomb, L., & Son, Designs, 32, 37.
Newell, R., & Son, Photographs, 138.
Newland, E., loans Painting, 48.
Newman, J. H., Photographs, 142.
Newton, A. P., Water color, 66.
Newton, Gilbert Stewart, Painting, 63.
Newton, H. J., Photographs, 141.
Newton, Stuart, Paintings, 19.
New York Academy of Design, loans Paintings, 17, 19, 23.
New York City Hall, loans Portrait, 21.
New York Hospital, loans Paintings, 18, 24, 50.
New York Museum, loans Sculpture, 51.
New York Society for the Relief of Widows and Orphans, loans Painting, 30.
Nicholas, Miss M., Painting, 75.
Nichols, H. H., Engravings, 58.
Nicolaysen, L. W., Painting, 108.
Nicoll, E., Painting, 38.
Nicoll, J. C., Paintings, 25, 26, 27, 28.
Nielsen, Amaldus, Paintings, 108, 109.
Nielsen, Johan, Painting, 108.
Niemeyer, J. H., Painting, 20.
Nilson, H. M., Painting, 21.
Nilsson, S., Paintings, 106.
Nisen, Felix, Paintings, 93, 95.
Nobas, N., Photographs, 132.
Nobas, Rosendo, Sculpture, 125; Plaster, 126.
Noble, T. S., Painting, 44.
Nordenberg, B., Paintings, 106.
Nordgren, A., Paintings, 106.
Nordlander, Miss A., Painting, 106.
Norman, A., Paintings, 108, 109.
Norman, C., Photographs, 141.
North, Miss R. M., Drawing, 56.
Northbrook, Lord, loans Paintings, 62, 63.
Northcote, J., Painting, 63.
Norton, W. E., Painting, 42.
Notermann, Zach., Paintings, 73, 75, 77.
Notman, W., loans Painting, 71; Photographs, 142.
Novello, Luigi, Mosaic tables, 112.
Nys, P., Painting, 38.

O.

Obermullner, Adolphus, Paintings, 89.
Obernetter, J. B., Prints, 143.
Obregon, José, Painting, 123.
O'Brien, Paintings, 69, 70.
O'Brien, L. R., loans Paintings, 69, 70.
O'Brien, W., loans Painting, 29.
Ocaranza, Manuel, Painting, 123.
Ochoa, B., loans Paintings, 130.
Ockel, E., Paintings, 83, 84.
O'Connor, J., Water color, 66.
Oeconomo, A., Paintings, 89.
Oertel, J. A., Painting, 31.
Ogilvie, C., Painting, 29.
Okerbund, E. G., Photographs, 141.
Olyphant, D., loans Painting, 19.
Olyphant, R., loans Painting, 23.
Olyphant, R. M., loans Paintings, 17, 18, 20, 23, 30.
O'Neil, Henry, Painting, 63.
Ontario, Government of, loans Paintings, 70, 71.
Ooms, Karel, Painting, 95.
Opie, John, Paintings, 63.
Oppenoorth, W. J., Paintings, 100, 101.
Orchardson, W. Q., Paintings, 63.
Orlandini, Mosaic tables, 112.
Orlofsky, W., Painting, 135.
Ornamental Mirror Co., Photographs, 145.
Ortells, C., Hairwork, 133.
Ortiz, D. J. de, Painting, 130.
Ortiz, J., Paintings, 129.
Ortlieb, F., Painting, 84.
Ortmans, Miss F. A., Painting, 38.
Osgood, Jas. R., loans Painting, 26.
Osgood, J. R., & Co., Photographs, 145.
Ostergren, T. P., Wood carvings, 105.
Osti, H., Photographs, 145.
Ott & Brewer, loans Sculpture, 50.
Oudinot, A., Painting, 75.
Ouless, W. W., Paintings, 64.
Overbaugh, A. W., Engravings, 55.
Owen, William, Painting, 64.

P.

Pabst, C. Alf., Painting, 74.
Pach, Photographs, 140.
Pacheco, I., Photographs, 144.
Pacheco, I. Insley, Paintings, 121; Drawings, 121.
Paez, José, Painting, 123.
Pagani, Luigi, Sculpture, 111.
Page, Wm., Painting, 21.
Pagés y Casamitjana, Sculpture, 126.
Pagés y Serratosa, Statuettes, 127.

Paine, George, loans Painting, 64.
Palazzi, Gaetano, Painting, 113.
Paling, John I., Painting, 102.
Pallière, J. L., Painting, 72.
Palm, Chas., & Co., Transfers on glass, 56.
Palm, G. W., Painting, 106.
Palmer, E. D., Sculpture, 51.
Pandiani, Signora A. M., Sculpture, 118.
Pandiani, Costantino, Sculpture, 110, 114.
Pandiani, Giovanni, Sculpture, 111.
Pandiani, Innocente, Sculpture, 110.
Paquet, A. C., Medals, 55.
Pardessus, E. V., Sculpture, 30.
Park, R. H., Sculpture, 50, 51.
Parker, E., Painting, 42.
Parker, J. A., Painting, 29.
Parker, S. H., Painting, 39.
Parkes, R. B., Engravings, 67.
Parmentier, Louisa von, Paintings, 88, 90.
Parmentier, Mary von, Painting, 89, 90.
Parra, Felix, Painting, 123.
Parrot, R. P., loans Painting, 23.
Parsons, C., loans Painting, 71.
Parton, A., Paintings, 20, 23.
Pasquinelli, A., Painting, 122.
Passage, A. du, Sculpture, 47.
Paton, W. H., Painting, 64.
Pattburg & Bros., Passe-partouts, 138.
Paullin, W. T., Photographs, 140.
Pausinger, Frances von, Painting, 89.
Pautrot, I., Bronze, 81.
Pauwels, Ferdinand, Paintings, 38, 93.
Pawle, F. C., loans Painting, 62.
Paxson Bros., Photographs, 139.
Payne, H. T., Photographs, 140.
Pazzi, Prof. Enrico, Sculpture, 110.
Peacon, W. V., Penmanship, 49.
Peake, W. J., loans Painting, 22.
Peale, C Wilson, Paintings, 48, 50.
Peale, Rembrandt (dec'd), Paintings, 45, 47.
Peale, Mrs. R., loans Painting, 45.
Pearce, Charles S., Painting, 22.
Pease, A., Painting, 31.
Pease, J. Ives, Engravings, 58.
Peck, S. M., & Co., Apparatus, 139.
Peduzzi, Renato, Sculpture, 111, 113, 114.
Peele, J. T., Painting, 64.
Pell, A. I., loans Paintings, 70, 71.
Pen, A. I., loans Painting, 70.
Penas y Leon, Antonio de las, Statuette, 127.
Pencoyd Rolling Mills, Iron work, 9.
Pender, John, loans Painting, 62.
Penel, Jules, Engravings, 82.
Penn, P. G., loans Painting, 71.
Pennsylvania, State of, loans Painting, 22.
Penther, Daniel, Paintings, 89.
Perdicaris, I., Painting, 17; loans Design, 49.
Pereda, Raimondo, Sculpture, 113, 114, 116.
Perine, George E., Engravings, 58.
Perkins, C. C., loans Painting, 41.
Perkins, E. N., loans Painting, 19.
Perkins, Stephen H., loans Sculpture, 52.
Perrault, A., Painting, 78.
Perrault, L., Painting, 73.
Perré, H., Paintings, 69.
Perrey, N. A., Sculpture, 75.
Perrine, W. H., Chromos, 56.
Perry, E. Wood, Paintings, 18, 19, 20, 25, 26, 27.
Perseus, Edw., Painting, 107.
Perugini, Charles Edward, Painting, 64.
Pesenti, Domenico, Painting, 114.
Pessina, Carlo, Sculpture, 111, 119.
Petersen, J. E. C., Painting, 42.
Petit, Eugene, Painting, 74.
Petrazzini, Painting, 122.
Petre, F., Painting, 144.
Pettie, John, Paintings, 64.
Pettit, G. W., Painting, 47.
Pezzicar, F., Sculpture, 91.
Pfeiffer, Carl, Designs, 35.
Philippeau, C. F., Painting, 101.
Phillips, L. B., Engravings, 67.
Photo Lithograph Co., Lithographs, 145.
Picchi, Andrea, Paintings, 115, 116, 117.
Picq, H., Design, 82.
Pierce's Business College, Penmanship, 57.
Pierson & Poincy, Painting, 43.
Pilgeram & Lefèvre, loan Paintings, 62, 64, 66.
Pilz, Vincenz, Sculpture, 90.
Pina, Salome, Painting, 123.
Pinchot, J. W., loans Paintings, 20, 29.
Pine, Theodore, Painting, 17.
Pinera, Juan de, Paintings, 126, 129.
Pitarra, Cav. Carlo, Painting, 115.
Pitner, Francis, Water colors, 90.
Pixis, Theodore, Painting, 83.
Plantou, Miss, loans Painting, 48.
Plantou, Mrs., Painting, 48.
Plassan, A. E., Painting, 73.
Platteel, Jean David, Painting, 94.
Pleshanoff, P., Painting, 135.
Plockhorst, B., Painting, 84.
Plockhorst, Prof., Painting, 85.
Plumot, A., Paintings, 94, 95.
Pohl, G. R., Designs, 36.
Pohle, H., Paintings, 17, 84.
Poncet, B., Painting, 79.
Poncet, J. B., Painting, 78.
Pönninger, Miss C., Water colors, 91.
Poole, P. F., Painting, 64.
Pope, A., jr., Wood carving, 59.
Pope Pius IX., loans Paintings, 120.
Porcinai, Antonio, Sculpture, 111.
Porporati, Painting, 38.
Portaels, J., Paintings, 92, 94.
Porter, B. C., Painting, 41.
Porter, S. C., Painting, 46.
Poschinger, R. von, Painting, 84.
Post, Mrs. Charles, loans Painting, 25.
Post, Miss Christine, Painting, 107.
Post, Geo. B., Designs, 34.
Postma, G., Painting, 100.
Potemont, M., Engraving, 80.
Potsdamer & Co., Engraving, 58.
Pott, L. G., Painting, 64.
Potter, Mrs., loans Painting, 23.
Potter, E., Designs, 34, 35.
Potter, W. A., Designs, 34.
Potter & Robertson, Designs, 34.
Powers, Preston, Sculpture, 51.
Poynter, Edward J., Paintings, 64.
Pozzi, Egidio, Sculpture, 118.
Pozzo, Aug., Paintings, 144.
Prang, L., & Co., Chromo-lithographs, 55.
Preller, L., Painting, 83.
Preller, N., Painting, 84.
Prime, W. C., loans Painting, 30.
Prince, S. F., & Co., Stonework, 9.
Princeteau, R., Paintings, 78, 79.
Prinsep, Val. C., Paintings, 64.
Prion, Louis, Painting, 73.
Proa, C., Photographs, 144.
Probst, Charles, Painting, 89.
Protais, P. A., Paintings, 72, 73.
Putnam, J. P., Designs, 32, 33.

Q.

Queriau, Luigi, Painting, 113.
Quick, W. M. R., Engraving, 67.

R.

Rabada y Valire, Juan, Paintings, 127.
Rabillon, L., loans Painting, 38.
Racotchi, Sidorsky, & Co., Painting, 135.
Radice, Cav. P., Painting, 115; Sculpture, 117.
Radius, Eugenio, Sculpture, 119.
Raeburn, Sir Henry, Paintings, 64.
Rafter, Susie J., Painting, 28.
Ragusa, Vincenzio, Sculpture, 110, 111.
Rajon, P. A., Etchings, 80, 81

Ramaschiello, Vincenzo, Sculpture, 114.
Ramazzotti, Serafino, Sculpture, 111, 119.
Ramirez, Joaquin, Painting, 123.
Rand, Dr., loans Painting, 24.
Randle, Fred., Painting, 46.
Raoux, Albert, Paintings, 93, 95.
Raphael, Wm., Painting, 70.
Rapin, A., Painting, 76.
Rapin, A. J., Painting, 73.
Rasmussen, J. E. S., Paintings, 104.
Rathenower, Apparatus, 143.
Rau, G., Photographs, 138.
Raupp, Carl, Painting, 43.
Raven, John S., Painting, 64.
Ream, Vinnie, Sculpture, 51, 52.
Rebull, Santiago, Paintings, 123, 124.
Redgrave, R., Paintings, 64; Engravings, 67.
Redgrave, Samuel, loans Engraving, 67.
Redman & Kenney, Engraving, 58.
Reed, E. J., loans Water color, 66.
Reed, J. C., Drawing, 54.
Reich, Jos., Drawings, 54.
Reichard & Lindner, Photographs, 143.
Reichert, Chas., Paintings, 89.
Reichert, F., Paintings, 83, 85.
Reid, J. J., Photographs, 140.
Reijntjes, H. E., Paintings, 102, 103.
Reilly, J. J., Photographs, 137.
Reitlinger, A. H., loans Paintings, 38.
Reitmeyer, J., Photographs, 143.
Renie, Jean Emile, Paintings, 73, 76, 77, 79.
Reniers, P. C., Sculpture, 47.
Renwick & Sands, Design, 34.
Reuling, George, loans Paintings, 38, 43.
Reusch, F., Sculpture, 85.
Revel, C., Painting, 75.
Reynaud, F., Painting, 73.
Reynolds, Sir J. (dec'd), Paintings, 47, 64.
Reynoso, E., Calligraphs, 131.
Riabinin, Carving, 135.
Ribarz, Ralph, Paintings, 88, 89.
Ribbing, Miss S., Paintings, 107.
Ribossi, Angelo, Painting, 114.
Rice, J. D., Stereoscope, 141.
Richards, D., Sculpture, 44, 47.
Richards, F. De B., Painting, 47.
Richards, Henry, Designs, 37.
Richards, W. T., Paintings, 22, 25, 26, 27.
Richmond, H., loans Painting, 30.
Richmond, W., loans Painting, 31.
Richmond, W. B., Painting, 64.
Richner, L. P. R., Painting, 75.
Richter, G., Painting, 85.
Ridgway, W., Engravings, 67.
Riedel, Chas., Painting, 88.
Riegen, N., Paintings, 102, 103.
Rigaud, John Francis, Painting, 64.
Ringel, D., Bronze, 81.
Ripley, Miss E., loans Painting, 28.
Ripley, Miss H., loans Painting, 26.
Risse, R., Painting, 84.
Ritchie, A. H., Paintings, 29, 31; Engravings, 58.
Ritschel, G. A., Photographs, 143.
Rivera, Painting, 126.
Rivey, A., Paintings, 73, 78.
Rivière, B., Paintings, 64.
Robbe, Henry, Painting, 92.
Robbins, Ella, Drawings, 48, 49.
Robbins, F., Photographers' tent, 137.
Robbins, Rev. F. L., loans Paintings, 21, 38.
Robbins, H., Paintings, 27.
Robbins, H. W., Painting, 28.
Robert, Alexander, Paintings, 93, 94.
Robert, Jules, Engravings, 80, 81.
Robert, Leopold, Painting, 38.
Roberts, Howard, Sculpture, 21.
Roberts, T., Painting, 64.
Robertson, T., loans Painting, 23.
Robillard, Dr., loans Painting, 70.
Robinson, Andrew L., loans Paintings, 48.
Robinson, H. P., Photographs, 142.
Robinson, John, Water colors, 99.
Robinson, T., Paintings, 39, 41, 42, 43.
Roccheggiani, Mosaics, 119, 120.
Rocha, Antonio da, Painting, 121.
Rochenoir, I. de la, Painting, 77.
Rocher, H., Photographs, 138.
Rochussen, C., Paintings, 100, 102.
Rock, Warren, loans Painting, 69.
Roco, Hermanos, Statuary, 127.
Rodin, Auguste, Statuary, 96.
Rodriguez, Antonio, Painting, 123; Photographs, 132.
Rodriguez, C., Engravings, 132.
Rodriguez, D., Mosaic, 131.
Rodriguez, Juarez Juan, Painting, 124.
Rodriguez, Nicolas, Painting, 124.
Rodriguez Valcozar, Ramon, Painting, 128.
Roelofs, W., Painting, 102.
Roffiaen, François, Painting, 92.
Rogers, John, Statuary, 59.
Rogers, Randolph, Sculpture, 47, 51, 52.
Roi, Pietro, Painting, 111.
Roloefs, W., Painting, 102.
Rolph, I. T., loans painting, 70.
Romagnoli, Angelo, Painting, 113.
Romanelli Pasquale, Sculpture, 110, 114.
Romani, Prof. Carlo, Sculpture, 110.
Romani, Francesco, Sculpture, 118.
Romeli, P., Photographs, 143.
Rominelli, Ferdinando, Mosaic table, 59.
Romoli, Paintings, 111, 112.
Romoli, Prof. Luigi, Sculpture, 117.
Ronner, Mrs. Henriette, Painting, 101.
Roosenboom, Albert, Paintings, 92, 95.
Root, M. A., Illustrations, 138.
Root, S., Photographs, 139.
Ropes, Joseph, Painting, 46.
Rosen, Count C. von, Painting, 107.
Rosenthal, T. E., Paintings, 22, 47.
Rosetti, Antonio, Sculpture, 118.
Rosier, P., Paintings, 72, 74.
Ross, A., Bronze, 81.
Ross & Co., Photographs, 141.
Rosseels, Jacques, Painting, 93.
Rossi, Prof. Alessandro, Sculpture, 115.
Roth, G. A., Painting, 100.
Rothermel, P. F., Paintings, 22, 23, 40, 44, 45, 46, 47.
Rothschild, Baron L. de, loans Painting, 62.
Roubaud, L., Bronze, 81.
Roubeaud, L. A., Sculpture, 76.
Rouffio, P., Painting, 79.
Rougeron, A., Painting, 79.
Rous, Bart., loans Painting, 64.
Rovira y Rabassa, A., Monuments, 132.
Rowe, Geo. A., Engravings, 55.
Royal Academy of London, loans Paintings, 62, 64, 65.
Royal Belgian Society for Photography, 98.
Ruben, Francis Leo, Paintings, 88, 89.
Rubio, Prof. Luigi, Painting, 111.
Rückart, F., Painting, 85.
Ruckwardt, H., Photographs, 143.
Rudaux, E., Painting, 73.
Ruiz, M., Fancy work, 133.
Ruiz de Valdiria, Nicolas, Painting, 126.
Rulon, S. A., Hindoo idol, 59.
Rumbold, Geo. W., Wall paper, 55.
Rummelhof, Chr., Paintings, 109.
Rumpler, F., Paintings, 88, 90.
Rupprecht, M., Photographs, 144.
Rush, Sculpture, 50.
Russ, Francis, Paintings, 88, 89.
Russ, Robert, Paintings, 88, 90.
Russell, Earl, loans Painting, 62.
Rust, J. A., Painting, 100.
Ruths, V., Painting, 83.
Rydberg, C. F., Paintings, 107.
Ryder, J. F., Photographs, 138.
Ryger, T., Statuary, 135.

S.

St. Clement's Church, loans Sculpture, 52.
St. Gaudens, Aug., Sculpture, 51.

St. Paul's Church, loans Painting, 29.
St. Thomas' College, loans Paintings, 131.
Sabino, J. T., Photographs, 144.
Saddler, J., Engravings, 68.
Sadec, Th., Painting, 101.
Sagredo, Ramon, Painting, 123.
Sain, E. A., Paintings, 38, 72, 73.
Saintin, Jules Emile, Paintings, 73, 74, 87.
Salabanoff, D. A., Painting, 135.
Salabert, F., Painting, 73.
Salanson, Miss E., Painting, 77.
Salcedo, P., Design, 131.
Salisbury, E. E., loans Painting, 40.
Salisbury, Mrs. H., loans Painting, 29.
Salles, J., Paintings, 77.
Salles-Wagner, Mrs. A., Paintings, 74, 75.
Salmson, Hugo, Painting, 107.
Saloman, Geskel, Paintings, 107.
Salomi, Sculpture, 118.
Saltau, L., Painting, 38.
Salter, John, loans Painting, 69.
Saltus, Nicholas, loans Painting, 25.
Sampson, H., loans Painting, 39, 46.
Sanchez, Blanco Pedro, Painting, 128.
Sanchez, P., Painting, 130.
Sande Backhuijzen, Mrs. G. J. v. d., Paintings, 101, 102.
Sandham, H., Paintings, 70, 71.
Sandrini, Antonio, Mosaic tables, 112.
Sands, Philip J., loans Painting, 28.
Sant, James, Paintings, 64.
Santigosa, Francisco, Statuettes, 127.
Sargent, Henry, Painting, 48.
Sargent & Co., Stonework, 9.
Sarony, loans Painting, 29.
Sarony, N., Photographs, 138.
Sarrocchi, Tito, Sculpture, 110.
Sartain, Emily, Painting, 24.
Sartain, John, Engravings, 58.
Sartain, Samuel, Engravings, 58.
Sasso, Antonio, & Son, Sculpture, 117.
Satterlee, W., Paintings, 24, 25, 28.
Satyro, Pedro, Miniatures, 144.
Saul, Giorgio, Sculpture, 111.
Saunders, G., Engraving, 68.
Savrij, H., Painting, 100.
Savry, H., Painting, 100.
Sawyer, S. E., loans Painting, 41.
Sayles, J., loans Painting, 41.
Scappini, G., Mosaic tables, 112, 113.
Scarselli, Nicola, Mosaics, 112.
Scattergood & Hammar, Engraving, 58.
Schaarwachler, J., Photographs, 143.
Schaeffer, A., Paintings, 88, 89.
Schafer, S. M., loans Painting, 18.
Schams, Francis, Painting, 90.
Schanche, Herm. G., Painting, 108.
Scharff, Anthony, Medals, 91.
Schauss, F., Paintings, 83, 84.
Schell, F. B., Drawing, 54.
Schenck, A. F., Paintings, 73.
Schenkel, J. J., Paintings, 101, 102.
Schidone, Painting, 38.
Schilcher, Fred., Paintings, 88.
Schile, Henry, loans Drawing, 48.
Schipperus, P. A., Painting, 102.
Schive, Jacob, Painting, 108.
Schlesinger, F., Painting, 84.
Schlesinger, Henry, loans Painting, 63.
Schlesinger, L., Photographs, 139.
Schlesinger, Mr., loans Painting, 24.
Schluter, B., Photographs, 140.
Schmertz, W. E., loans Painting, 47.
Schmidt, George S., Silhouettes, 56.
Schneider, G. H., loans Painting, 37; loans Sculpture, 51.
Schödl, Max, Paintings, 88.
Schodisch, Lud., Studies, 144.
Scholten, J. A., Painting, 101.
Scholten, J. H., Painting, 100.
Scholtz, R., Photographs, 143.
Schönn, Aloysius, Painting, 90.
Schönreither, George, Painting, 89.
Schovelin, A., Painting, 104.
Schrader, Jul., Painting, 85.
Schreiber, Mrs., Paintings, 71.
Schriber & Son, Photographs, 138.
Schrodi, Anthony, Painting, 89.
Schroeder, Louis, Etruscan art, 74.
Schulz, M., Sculpture, 85.
Schulz & Suck, Photographs, 143.
Schussele, C., Paintings, 24, 46.
Schuster, Miss Adele, Water colors, 91.
Schuyler, Miss, loans Painting, 28.
Schuyler, M. R., loans Painting, 28.
Schwabe, G. C., loans Paintings, 63, 64.
Schwarz, A., Painting, 85.
Schwarzmann, H. J., Architect, 9.
Schwarzmann, H. J., & Kafka, H., Designs, 36, 37.
Schweinitz, R., Sculpture, 86.
Schweninger, Rosa, Painting, 89.
Schwerin, Amalia von, Paintings, 107.
Schwier, K., Photographs, 143.
Schwind & Kreuger, Photographs, 139.
Schwörer, A., Painting, 54.
Scifoni, A., Paintings, 114, 116.
Scott, G., loans Paintings, 70, 71.
Scott, W., loans Painting, 70.
Scott, Wm. W., Paintings, 25, 26, 28.
Scovill Manufacturing Co., Apparatus, 139.
Sculptors, Society of, Sculpture, 114.
Seavey, L. W., Photographs, 140.
Sebastiá Vila, P., Photographs, 132.
Sebes, Pieter Willem, Painting, 95.
Sebillot, Paul, Painting, 74.
Sebron, H., Paintings, 77, 79.
Seelig, M. J., & Co., Sculpture, 53.
Seelos, Godfrey, Painting, 89.
Ségé, A., Paintings, 72, 79.
Seggern, F. van, Paintings, 101, 102.
Seibels, C., Paintings, 84.
Seibert, S. R., Camera, 138.
Seiler, C., Photographs, 139.
Seitz, Prof. Otto, Paintings, 38, 39.
Seligman, Mrs. E., Painting, 23.
Selim, Mrs. H., Painting, 75.
Sellstedt, L. G., Painting, 29.
Semiradsky, H., Painting, 134.
Semmendinger, A., Photographs, 140.
Senat, P. L., Painting, 40.
Serrano y Arenas, Embroideries, 133.
Severn, A., Water colors, 66.
Sèvres Porcelain Manufactory, Vases, 74, 76.
Seybold, G. von, Painting, 83.
Shade, W. A., Painting, 20.
Shapleigh, F. H., Painting, 41.
Sharpe, C. W., Engravings, 68.
Shattuck, A. D., Paintings, 23, 29, 31.
Shaw, Annie C., Painting, 44.
Shawcross, W. F., loans Painting, 64.
Sheldon, F., loans Painting, 23.
Sheldon & Slason, Sculpture, 59.
Sherwood, John, loans Painting, 25.
Sherwood, J. H., loans Paintings, 22, 31
Shirlaw, Walter, Painting, 40.
Shoemaker & Co., Glass, 9.
Shultz, J. S., loans Painting, 30.
Sibley & Co., Albums, 137.
Sidwall, Miss Amanda, Painting, 107.
Signorini, T., Paintings, 113, 115.
Silbernagel, C., Bronze, 86.
Silva, F. A., Paintings, 26, 30.
Silvanovitch, N., Painting, 135.
Simon, H., Painting, 45.
Simons, M. P., Photographs, 140.
Sims, H. A., Design, 35.
Sims, H. A. & J. P., Designs, 35.
Sims, James P., Design, 35.
Sinding, Otto, Paintings, 108.
Sinding, Stephen, Sculpture, 109.
Sirouy, A., Paintings, 75, 77.
Skanberg, C. E., Painting, 107.
Skarbina, F., Water color, 86.
Skari, E. O. R., Painting, 108.
Skirmund, S. A., Painting, 135.
Skirmunt, S. de, Paintings, 135.
Slack, S., & Co., Stained glass, 53.

Slingeneyer, Ernest, Painting, 92.
Slocombe, C. P., Engravings, 68.
Sluijter, H. D., Engravings, 103.
Smallfield, F., Water colors, 66.
Smargiassi, Giovanni, Painting, 116.
Smart, J., Painting, 64.
Smart, T. L. & R. M., Engravings, 58.
Smibert, John, Painting, 48.
Smibert, J. S., Painting, 19.
Smilie, G. H., Paintings, 23, 27, 28.
Smillie, James, loans Painting, 27.
Smillie, J. D., Paintings, 25, 26; loans Painting, 25.
Smith, B. H., loans Painting, 25.
Smith, C. S., loans Paintings, 18, 20, 22, 23, 25.
Smith, F. H., Paintings, 26, 27, 28; loans Paintings, 27, 28, 40.
Smith, G. B., Shield, 57.
Smith, H. B., loans Painting, 28.
Smith, H. P., Painting, 27.
Smith, J., loans Paintings, 70, 71.
Smith, J. T., loans Painting, 25.
Smith, Levi F., Chromo-lithograph, 56.
Smith, Miss Mary, Painting, 43.
Smith, M. L., Design, 34.
Smith, R. C., Sculpture, 52.
Smith, Russell, Painting, 47.
Smith, T. Henry, Paintings, 23, 45, 46.
Smith, T. L., Paintings, 29, 31.
Smith, W. B., loans Paintings, 23, 30.
Smith, W. H., loans Painting, 64.
Smith, Xanthus, Painting, 45.
Smith-Hald, F., Painting, 108.
Smits, E., Paintings, 93, 94, 95.
Sneff, C. H., loans Painting, 19.
Snowden, T. W., Wood carvings, 59.
Snowe, Francis, Painting, 43.
Soanes, Temple, loans Painting, 65.
Sociedad Económica de Amigos del Pais, Photographs, 132.
Sodar, F., Paintings, 93, 94.
Sodergren, Miss Sofia, Painting, 107.
Soeterick, T., Painting, 100.
Sojo, Statuary, 124.
Sokoloff, P., Painting, 134; Water colors, 136.
Sola y Roca, R., Lithographs, 131.
Soler, F., Monuments, 132.
Solmi, Prof. V., Paintings, 114, 115, 116.
Sommaruga, Napoleone, Paintings, 115.
Sonntag, W. L., Painting, 24.
Sophje, L., Photographs, 145.
Sörensen, C. F., Painting, 104.
Soria, Ferrando Ricardo, Statuary, 127.
Soubre, Charles, Painting, 92.
Souchon, W., Paintings, 83, 85.
Southwick, M., loans Painting, 18.
Souza, Silveira, Miniatures, 144.
Spalding, H. M., Household art, 59.
Spangenberg, G., Painting, 84.
Spangenberg, L., Water colors, 86.
Spanish National Mint, loans Medals, 131; Photographs, 132.
Speeckaert, Gustave, Painting, 95.
Spencer, Mrs. Lily M., Paintings, 39, 44.
Speroni, J. L., Engravings, 55.
Spertini, Giovanni, Sculpture, 113, 117, 119.
Spreafico, J., Album, 132.
Springer, C., Painting, 101.
Stacpoole, F., Engravings, 68.
Staigg, R. M., Paintings, 23, 40, 41.
Stainer-Knittl, Anne, Painting, 90.
Stallaert, J., Paintings, 93, 94, 95.
Stanfield, Clarkson (dec'd), Painting, 64.
Stanford, L., loans Painting, 22.
Stanghi, Carolina, Painting, 115.
Stanley, D. M., Painting, 45.
Staples, Mrs. M. E., Painting, 64.
Starck, Jules, Painting, 93.
Starkenborgk, I. N. T. von, Paintings, 84, 85.
Starr, Miss Louisa, Painting, 64.
Stayner, G. N., loans Painting, 31.
Stearns, J. M., loans Paintings, 24.
Steele Bros., China and glass, 58.
Steens, Edmond, Painting, 92.
Steffeck, C., Paintings, 84.
Steffellaar, J., Painting, 102.
Stehlin, Jos., Altar carving, 57.
Steinhaus, William, Drawings, 48.
Stengel, G. A., Drawings, 48.
Stereoscopic Co., Photographs, 141.
Sterling, Mrs. C. H., Drawings, 49.
Sterling, W. I., loans Painting, 71.
Stevenson, A. S., loans Paintings, 62, 64.
Stewart, J. L., Paintings, 20, 46.
Stewart, W. S., loans Paintings, 20, 38, 46.
Stillfried, R. B., Photographs, 144.
Stillfried & Anderson, Photographs, 145.
Stillman, Mrs. M., Water color, 66.
Stock, J., & Bro., Apparatus, 139.
Stocker, Francis, Paintings, 88.
Stockler, Emanuel, Water colors, 90.
Stockwell, N., Camera, 141.
Stoddard, S. R., Photographs, 137.
Stokes, A. P., loans Painting, 22.
Stokes, John, Drawing, 54.
Stoll, J. A., Decorative bas-reliefs, 55.
Stone, Mrs. A. B., loans Painting, 28.
Stone, Dr. Horatio (deceased), Sculpture, 51.
Stone, Marcus, Painting, 64.
Stone, W. O. (dec'd), Paintings, 19, 29.
Storey, George A., Paintings, 64.
Storrow, Mrs. C., loans Painting, 54.
Storrows, T. W., loans Portrait, 19.
Stortenbeker, P., Painting, 100.
Story, Annie B., Drawings, 48.
Story, G. H., Paintings, 17, 23.
Story, W. W., Sculpture, 50, 51.
Stroebel, J. A. B., Paintings, 100, 102.
Stroefer & Kirchner, loan Paintings, 54; Engravings, 55.
Strong & Dotterer, Photographs, 140.
Stroobant, F., Paintings, 92, 93.
Strugnell, F. W., loans Water color, 66.
Strutt, A. T., Painting, 116.
Struzza, Giovanni, Sculpture, 111.
Stuart, G. (dec'd), Paintings, 18, 19, 42, 52, 64.
Stuart, R. L., loans Paintings, 17, 18, 20, 25, 29.
Sturgis, Mrs. D. C., loans Painting, 21.
Sturgis & Brigham, Designs, 32.
Sturm, F., Paintings, 85.
Subirat, Ramon, Wood carving, 127.
Sully, Miss, loans Paintings, 23, 39.
Sully, Thomas, Portraits, 21, 23, 39, 50.
Suñol, G., Bronze, 126.
Suydam, J., loans Painting, 31.
Suydam, J. A. (dec'd), Paintings, 22, 23, 30.
Svenson, F., Painting, 107.
Svertchkoff, N., Painting, 135.
Swain, Drawing, 54.
Swain, Jos., Engravings, 68.
Swank, J. W., Penmanship, 56.
Swayne, W. M., Sculpture, 45.
Sweeny, T. T., Photographs, 138.
Swieszewski, A. von, Painting, 83.
Swoboda, Edward, Painting, 89.
Sword, J. B., Painting, 45.
Symington, J., Painting, 26.

T.

Taanman, J., Painting, 100, 102.
Tadema, L. Alma, Water colors, 64, 66.
Taft, Mr., loans Painting, 23.
Tait, A. F., Painting, 22.
Tait, J. R., Painting, 40.
Talarn, D., Sculpture, 125.
Talarn, Pelegrin, Painting, 128.
Tampinco, Isabello, Sculpture, 130.
Tantardini, Antonio, Sculpture, 111, 114, 116, 118, 119.
Tassara, Sculpture, 52.
Tayler, F., Water colors, 66.
Tayler, Fred., Engraving, 68.

Taylor, Thomas, loans Painting, 62.
Taylor, W., Photographs, 138.
Tedesco, Prof. Michele, Painting, 111.
Telford, J. M., loans Painting, 23.
Temple, Cowper, loans Water color, 66.
Tempra, Quirino, Sculpture, 118.
Tenney, U. D., Painting, 48.
Tepa, Francis, Water colors, 90, 91.
Testas, W. de Famars, Painting, 101.
Thaulow, Fritz, Paintings, 108.
Thayer, S., Designs, 32.
Thayer, S. J. F., Designs, 32, 36.
Thiersch, L., Painting, 83.
Thom, J. C., Paintings, 19, 31.
Thomas, Mrs., Paintings, 26.
Thomas, Emile, Wood engravings, 80.
Thomas, Percy, Engravings, 68.
Thomas, W. L., Water color, 66.
Thompson, A., Paintings, 18, 25.
Thompson, A. Wordsworth, Paintings, 19.
Thompson, H. I., Painting, 22.
Thompson, Harry, Painting, 21.
Thompson, J., Painting, 29.
Thompson, J. C., Engravings, 58.
Thomson, A. W., Painting, 30.
Thorburn, A., Water color, 66.
Thoren, Otto von, Painting, 88.
Thorn, G. W., Photographs, 138.
Thouron, H., Painting, 39; loans Painting, 43.
Thurman, P., Painting, 108.
Thurston, J. O., loans Painting, 27.
Tidemand, A., Painting, 108.
Tiffany, L., loans Painting, 20.
Tiffany, L. C., Paintings, 25, 28.
Tilden, G. T., Designs, 32.
Tilton, J. R., Paintings, 39, 40.
Titoff, A., Painting, 135.
Toberenz, R., Sculpture, 86.
Tom, J. B., Painting, 101.
Tomashefky-Bontcha, J., Painting, 135.
Tomkins, Chas. A., Engraving, 68.
Tompkins, Clementina, Painting, 39.
Topham, F. W. W., Paintings, 65, 67.
Torelli, Lot, Sculpture, 113, 114.
Torna, O., Paintings, 107.
Torrecassana, Francisco, Painting, 128.
Torrini, Giocondo, Mosaic tables, 112.
Tortez, V., Painting, 78.
Totti, Prof. Carlo, Painting, 114.
Tourteau, E., Decorated faience, 97; Decorated earthenware, 98.
Tovar, Manuel, Models, 127.
Townsend, Chas. E., Painting, 17.
Townsend, John C., loans Painting, 27.
Tracey, C., loans Painting, 30.
Train & Bundy, Photographs, 139.
Trapp & Munch, Photographs, 143.
Travers, W. T. K., Painting, 52.
Trenti, Girolamo, Paintings, 111, 116.
Tresling & Co., Chromo-lithographs, 103.
Trezzini, Angelo, Painting, 116.
Trigt, H. A. van, Painting, 101.
Trinity Chapel, N. Y., loans Painting, 39.
Trist, George, loans Painting, 62.
Trojani, G. B., Sculpture, 113, 119.
Trombetta, Sculpture, 110.
Trotter, N. H., Painting, 46.
Trouillebert, P. D., Painting, 74, 78.
Truman, E., Painting, 48.
Trumbull, G., Painting, 30.
Trumbull, John, Painting, 50.
Trupheine, A. J., Painting, 73.
Tschaggeny, Charles, Paintings, 92, 93.
Tuckerman, S. S., Paintings, 41, 42.
Turini, G., Sculpture, 32.
Turner, H. J., loans Painting, 62, 63.
Turner, J. M. W., Painting, 65.
Turner, J. V. P., loans Painting, 43.
Turner, W. G., Sculpture, 51, 52.
Twibill, G. W., Painting, 19.
Tyson, I. G., Photographs, 138.
Tyszkiewicz, Count, Photographs, 145.
Tzyroolnikoff, P., Carving, 135.

U.

Ugolini, Giov., & Co., Mosaic tables, 112.
Uhlrich, H. S., Engraving, 68.
Ulke, Henry, Paintings, 43.
Ulmann, B., Painting, 72.
Ungar, J., Photographs, 144.
Unger, W., Etchings, 91.
Union Club, N. Y., loans Paintings, 19, 29.
Union League Club, loans Sculpture, 44.
(Unknown), Paintings, 38, 48, 126, 128; Sculpture, 117, 118.
Unterberger, F. R., Paintings, 92, 94.
Upjohn, Richard M., Designs, 33.
Urgell, Modesto, Painting, 128.

V.

Vaini, P. (deceased), Painting, 29.
Valadon, J. E., Painting, 77
Valandon, I., Painting, 78.
Valaperta, Francesco, Sculpture, 117.
Valentine, J., Photographs, 142.
Valera, J. D., Painting, 129.
Valkenburg, H., Painting, 100.
Van den Broeck, Miss C., Paintings, 93, 95.
Vanderbilt, W. H., loans Painting, 29.
Vandervelde, Painting, 71.
Vanderlyn, J., Paintings, 21, 50.
Van Deventer, J. H., Painting, 100.
Vandusen, R., Chromo-lithographs, 56.
Vandyck, Paintings, 70.
Vandyke, Anthony, Painting, 37.
Van Elten, K., Paintings, 17, 18, 24, 27, 28.
Van Everdingen, A., Painting, 101.
Van Hove, J. H., Painting, 100.
Van Hove, Victor, Painting, 93.
Van Keirsbilck, Jules, Paintings, 92, 94, 95.
Van Lil, Joseph, Painting, 93.
Van Lockhorst, D., Painting, 100.
Van Loo, L., Photographs, 141.
Van Luppen, G. Joseph, Paintings, 93, 94.
Van Reuth, E., Painting, 52.
Van Schendel, P., Painting, 38.
Van Seben, Henry, Paintings, 94, 95.
Varin, Eugene, Engravings, 80.
Vasselot, A. de, Sculpture, 75, 76.
Vazquez, Painting, 124.
Vazquez, Ignacio, Painting, 124.
Vedder, Elihu, Painting, 39.
Vega, Federico de la, Painting, 123.
Vega, Joaquin de la, Painting, 124.
Vela, Prof. Vincenzio, Sculpture, 115.
Velasco, José Maria, Painting, 123.
Velazquez, Painting, 126.
Vely, A., Painting, 78.
Veneroni, Sculpture, 111, 119.
Venino, Franz, Drawings, 49.
Verboeckhoven, E., Painting, 38.
Verestchaghin, P., Paintings, 135.
Verhas, Jean, Painting, 92.
Verheyden, François, Painting, 95.
Verheyden, Isidore, Painting, 95.
Verhoeven-Ball, Paintings, 92, 95.
Verner, F. A., Paintings, 69, 71.
Vernet, Jos., Painting, 38.
Veron, A. R., Paintings, 72, 75, 77.
Verranzo, L., Photographs, 144.
Verschuur, W., jr., Painting, 101.
Verveer, Elchanon, Painting, 101.
Verveer, S. L., Painting, 101.
Vester, W., Painting, 101.
Vichi, Ferdinando, Mosaic tables, 112.
Vidal, L., Prints, 143.
Vidal y Roger, A., Music, 131.
Vigdal, A. G., Painting, 109.
Viger, H. J. L., Paintings, 72, 73.
Villa, E., Painting, 77.
Villa, Federico Gaetano, Sculpture, 114.
Villa, J. G., Sculpture, 118.
Villalpando, Carlos de, Painting, 123.
Villamil, Leopoldo, Paintings, 128.

Villebesseyx, G., Painting, 74.
Vinck, Franz, Paintings, 92, 94.
Vincotte, Thomas, Statuary, 93.
Virgin, J. G., Paintings, 107.
Virtue, Jas., loans Paintings, 62, 64.
Vogel, J. G., Paintings, 101, 102.
Vogt, A., Paintings, 69, 71.
Vokins, Messrs., loan Water colors, 65.
Volk, Douglass, Paintings, 38, 47.
Volkaerts, F. X., Earthenware, 98.
Volkenburg, P. van, loans Painting, 24.
Volkmer, Charles, Etchings, 59.
Volkmer, Charles, jr., Painting, 44.
Vos, Miss M., Paintings, 100, 101.
Vuagnat, F., Painting, 75.

W.

Wade, Carlos, Painting, 128.
Wagner, A., Painting, 54; Sculpture, 90.
Wagner, Jules, Paintings, 92, 94.
Wagner, S., loans Painting, 48.
Wahlberg, H. A. L., Painting, 107.
Wahlquist, E., Paintings, 107.
Walckiers, Gustav, Paintings, 92, 94.
Waldo, Painting, 50.
Walery, Photographs, 143.
Wales, G. W., loans Painting, 54.
Walker, Major, loans Paintings, 69, 70.
Wallander & Torslow, Paintings, 107.
Wallander, W., Painting, 107.
Waller & Schrader, Photographs, 137.
Waller, Frank, Painting, 23.
Waller, Mrs. M., loans Painting, 23.
Wallis, H., Paintings, 65.
Walraven, Jean, Painting, 92.
Walton, F., Painting, 65.
Ward & Co., Glass, 9.
Ward, E. M., Paintings, 31, 65.
Ward, Geo. R., Engraving, 68.
Ward, Mrs. Henrietta, Paintings, 65.
Ward, James, Painting, 65.
Wardell, J., loans Paintings, 63, 64.
Ware & Van Brunt, Designs, 32.
Warner, A., loans Painting, 30.
Warner, Miss W., Painting, 30.
Warren, J. H., loans Painting, 40.
Warren, O. L., Sculpture, 52.
Wassenvogel, S., Photographs, 144.
Wästfelt, C. C., Wood carvings, 105.
Waterman & Hall, Photographs, 139.
Waterman, M., Painting, 21.
Waters, Horace, loans Painting, 27.
Waters, Mrs. Horace, loans Painting, 26.
Waters, Mrs. S. C., Painting, 47.
Watkins, E. C., Photographs, 137.
Watts, George F., Paintings, 65.
Waugh, Ida, Paintings, 23, 47, 53.
Waugh, S. B., Paintings, 18, 21, 24, 45, 47.
Way, Paintings, 70.
Way, A. J. H., Painting, 47.
Way, C. Granville, Painting, 43.
Way, C. L., Paintings, 70, 71.
Weaver, Mrs. A. K., Photograph, 140.
Weber, Carl, Painting, 43.
Weber, P., Painting, 85.
Weber, Philip, Painting, 24.
Weber, Theodore A., Paintings, 93, 95.
Webster, W. P., loans Painting, 52.
Weeks, E. L., Painting, 41.
Weigall, Henry, Paintings, 65.
Weir, J. F., Paintings, 23, 34, 40, 47.
Weir, R. W., Painting, 31.
Weisman, W. H., Painting, 18.
Weissenbruch, Jan, Painting, 101.
Welling, H. J., loans Painting, 28.
Wells, Henry Tanworth, Painting, 65.
Welsh, John, loans Painting, 38.
Wenderoth & Co., Photographs, 137.
Wenderoth, F. A., Photographs, 145.
Werner, G., Painting, 107.
Werthcimer, Gustavus, Painting, 90.
Wertmuller (dec'd), Painting, 48.
West, Benjamin, Paintings, 38, 50, 65.
West, P. B., Painting, 39.
West, Samuel, Stained glass, 53, 57.
Westham Granite Co., Stonework, 9.
Westminster, Duch. of, loans Water color, 66.
Westminster, Duke of, loans Water color, 66.
Weston, I., Paintings, 70, 71.
Weston, N., Photographs, 137.
Wetherby, Mrs., Photographs, 140.
Wexelsen, Chr., Painting, 108.
Wharncliffe, Earl of, loans Painting, 64.
Wharton, P. F., Painting, 24.
White, Edwin, Paintings, 18, 20.
White, G. H., Painting, 69.
Whitechurch, R. (dec'd), Engravings, 58, 59
Whitney, Annie, Sculpture, 42, 44.
Whitney, George, loans Paintings, 22, 23, 25, 27, 28, 30.
Whitney, L. W., Design, 37.
Whitten, Charles V., loans Painting, 28.
Whittredge, W., Paintings, 17, 18, 20, 23, 30, 31.
Wider, W., Paintings, 84, 85.
Wiener, Charles, Medals, 96, 97.
Wiesehahn, F. W. H., Penmanship, 59.
Wiggleworth, T., loans Paintings, 20, 43.
Wiklund, O., Photographs, etc., 144.
Wilberg, C., Painting, 85.
Wild, H., Painting, 45.
Wild, H. G., Painting, 43.
Wilde, Joseph, loans Painting, 25.
Wilde, Samuel, loans Paintings, 26, 28.
Wilkeson, Mrs. W., loans Paintings, 30, 45.
Wilkie, Sir David, Paintings, 65.
Willard, A. M., Painting, 40.
Willard, W., Painting, 43.
Willcox, W. H., Painting, 44.
Willenick, M., Paintings, 76.
Williams, I. L., Paintings, 22, 47.
Williams, I. T., loans Paintings, 26, 27, 28.
Willich, C., Painting, 83.
Willis, H. B., Paintings, 67.
Willmore, A., Engravings, 68.
Wilson, G. W., Photographs, 141; Album, 141.
Wilson, Hood, & Co., Lenses, 139.
Wilson, J. J., Magic lantern, 137.
Wilson, Oregon, Paintings, 43, 45.
Wilson, Richard, Painting, 65.
Wilson, W. A., loans Paintings, 43, 45.
Windt, P. P., Painting, 101.
Winge, E., Paintings, 107.
Winge, Mrs. H., Paintings, 107.
Winge, M. E., Cartoons, 144.
Winner, W. E., Paintings, 22, 47.
Winters, Miss Anna, Paintings, 44.
Witteman & Bros., Centennial memorial, 55.
Wittkamp, Jean Bernard, Paintings, 95, 99.
Wolf, G., Painting, 38; Photographs, 143.
Wollrabe, H. W., Photographs, 103.
Wood, G. B., jr., Painting, 47; Drawings, 49.
Wood, Marshall, Sculpture, 60.
Wood, T. W., Paintings, 18, 23, 28.
Woodgate, T., loans Water color, 66.
Woods, R. S., loans Painting, 71.
Woodville, R. C., Paintings, 19, 21.
Woodward, D. A., Photographs, 140.
Workum, L. J., loans Sculpture, 40.
Worthington Sons, Pedestal, 59.
Wortly, S., Photographs, 141.
Wouvermans, Painting, 38.
Wright, Geo., Painting, 20.
Wright, H. Smith, loans Painting, 63.
Wright, J. H., loans Painting, 42.
Wulffaert, Hippolyte, Painting, 95.
Wyant, A. H., Painting, 28.
Wynfield, D. W., Paintings, 65.
Wyon, J. S. & A. B., Sculpture, 60.

X.

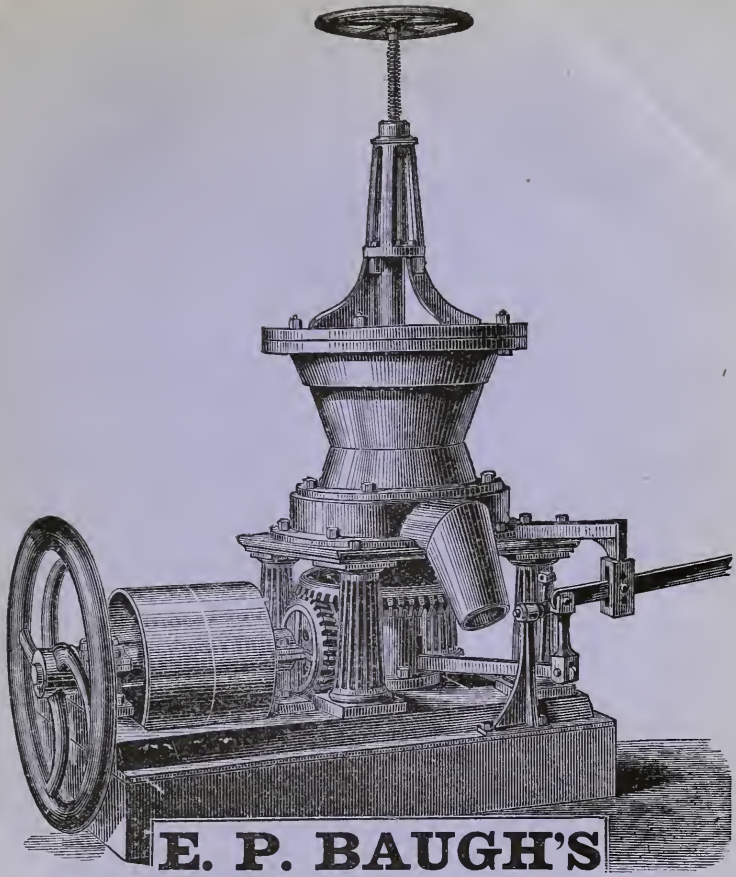
Xylander, W., Painting, 84.

Y.

Yeames, Wm. F., Paintings, 65.
Yon, Edmond C., Paintings, 72, 84.
Yooravleff, F., Paintings, 134.
York, F., Photographs, 142.
Young, Alfred, loans Sculpture, 50.
Yvon, A., Paintings, 75, 78.

Z.

Zagorsky, N., Painting, 134.
Zannoni, Cav. Ugo, Sculpture, 118.
Zetterström, Mrs. M., Painting, 107.
Zettler, F. X., Chromos, 86; Stained glass, 87.
Zier, Edouard, Painting, 79.
Zimmerman, T., Photographs, 139.
Zengler, F., Statuary, 135.
Zocchi, E., Sculpture, 114, 115, 116, 117, 119.
Zoellner, L., Cameos, 55.
Zoffany, Johann, Painting, 65.
Zuber, Buhler, Painting, 77.
Zuber, H. J., Painting, 74.
Zuccoli, Luigi, Paintings, 113, 114.
Zumbusch, Caspar, Sculpture, 90.
Zurbaran, F., Painting, 128.



E. P. BAUGH'S
PATENT SECTIONAL MILLS

FIVE SIZES,

FOR CRUSHING, GRINDING, AND PULVERIZING

Raw Bones, Phosphate Rock, Plaster, Cement, Fire Clay, Dye Woods, Minerals, Ores of various kinds, Shells, Lime,

AND ALL HARD SUBSTANCES.

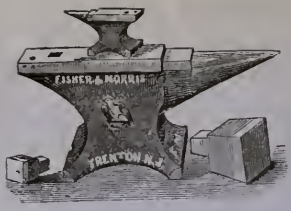
Mills can be seen in operation at No. 3609, Sec. A 8, Columns Nos. 61 and 62, Machinery Hall, "International Exhibition."

Patented in the United States, Great Britain, France, Belgium.

MANUFACTURED BY

BAUGH & SONS,

PHILADELPHIA.





THE EAGLE ANVIL WORKS,

TRENTON, NEW JERSEY.

(ESTABLISHED 1843.)

Sole Manufacturers of these celebrated Anvils, and of the

DOUBLE-SCREW PARALLEL LEG VISES,

Warranted of Hardened Cast Steel Face, welded in one piece, not to come off or to "settle."

Also all articles requiring welding of hardened Cast Steel to masses of Cast Iron by process of its original inventor, the late Mr. MARK FISHER, viz. :—Anvils for Saw Makers, File Makers, Axe Makers, &c., Coppersmiths', Silversmiths', and Tinmen's Stakes and Blocks, with hardened and polished cast steel faces, &c., &c., at 10 cents per pound. Steam Hammer Dies, Drop Forging Dies, Machinists' Surface Plates, 12 cts. Fisher's Stamp Shoes for Ore Mills, 7 cts.



Wanamaker's NEW Establishment.

This House, in connection with OAK HALL, is the **Largest in the World,** for the Manufacture and Sale of Men's Wear, embracing

READY-MADE CLOTHING

FOR MEN, BOYS, YOUTHS, AND CHILDREN,

HATS, CAPS, BOOTS, SHOES, AND FURNISHING GOODS,

With everything necessary to the complete Wardrobe of a Gentleman, at LOWEST POSSIBLE PRICES.

WANAMAKER & BROWN,

THIRTEENTH AND MARKET AND SIXTH AND MARKET STS.,

Orders Received by Mail. PHILADELPHIA

ESTABLISHED, 1821.

MORRIS, TASKER & CO., Limited,

PASCAL IRON WORKS,

PHILADELPHIA.

DELAWARE IRON COMPANY,

NEW CASTLE, DEL.

OFFICES: { 209 South Third Street, Philadelphia.
15 Gold Street, New York.
36 Oliver Street, Boston.

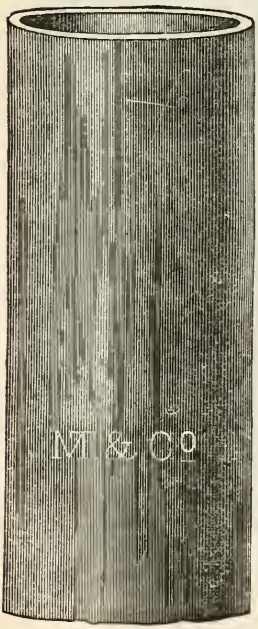
MANUFACTURERS OF

WROUGHT IRON WELDED TUBES,

Plain, Galvanized, and Rubber Coated,

FOR GAS, STEAM, AND WATER.

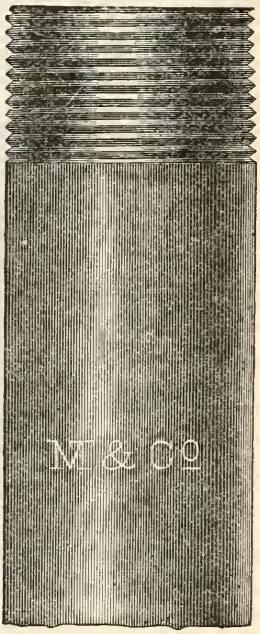
Lap-welded Charcoal Iron Boiler Tubes,



BOILER TUBE

Oil Well Tubing and Casing, Gas and Steam Fittings Brass Valves and Cocks, Gas and Steam Fitters' Tools, Cast-Iron Gas and Water Pipe, Street Lamp Posts and Lanterns, Improved Coal Gas Apparatus, Improved Sugar Machinery, etc.

WE WOULD CALL SPECIAL ATTENTION TO OUR PATENT VULCANIZED RUBBER-COATED TUBE.



TUBE

To guard against misrepresentations and insure buyers of TUBE and BOILER TUBE their obtaining the standard article, we stamp each length of our manufacture with Registered Trade Mark, as shown above, and would call especial attention to our weights, as we still ADHERE TO THICKNESS ADOPTED BY US FORTY YEARS AGO.



BUILDING No. 41,

OCCUPIED JOINTLY BY THE

CENTENNIAL CATALOGUE COMPANY,

AND

S. M. Pettengill & Co., Newspaper Advertising Agents,

South of East End of Machinery Hall.

ADVERTISEMENTS taken at this office for the Official Catalogue and all newspapers of the United States and Canadas. The principal papers of the country kept on file for inspection and use of exhibitors and visitors generally.

CENTENNIAL CATALOGUE CO.

S. W. Cor. Fourth and Library Sts., Philadelphia,

PUBLISHERS OF THE

OFFICIAL CATALOGUE

OF THE

INTERNATIONAL EXHIBITION OF 1876.

This Company owns the exclusive right to publish, sell, and distribute the "*Official Catalogue of the International Exhibition of 1876*," the work being printed under the direction of, and compiled from manuscript furnished by, the "U. S. Centennial Commission."

Advertisements taken on application to S. M. PETTENGILL & Co., Advertising Agents.

JOHN S. MORTON,
President.

MORDECAI D. EVANS,
Treasurer.

L. L. HYNEMAN,
Secretary.

S. HENRY NORRIS,
Solicitor.

JOHN R. NAGLE,
Publishing and Advertising Manager,
524 Market St., Philadelphia.

S. M. PETTENGILL & CO.,
Advertising Agents,
No. 701 Chestnut Street, Philadelphia,
No. 37 Park Row, New York,
No. 10 State Street, Boston,
Exhibition Grounds—South of East end of Machinery Hall, Building No. 41.

J. M. JOHNSON & SONS, Limited,
Sole European Agents,
No. 3 Castle St., Holborn, London.

DIRECTORS:

JOHN S. MORTON, WM. H. PENNELL,
M. ROSENBACH, STEPHEN F. WHITMAN,
GEORGE T. JONES, JOHN R. NAGLE,
JOSEPH HEILBRUN.

Office of the Company on Exhibition Grounds, Building No. 41, South of East end of Machinery Hall.



MACHINERY HALL.

United States Centennial Commission.

INTERNATIONAL EXHIBITION.

1876

Official Catalogue.

PART III.

MACHINERY HALL, ANNEXES, AND SPECIAL BUILDINGS.

DEPARTMENT V.—MACHINERY.

REVISED EDITION.

PHILADELPHIA:
Published for the Centennial Catalogue Company
BY JOHN R. NAGLE AND COMPANY.
Printed at the Riverside Press, Cambridge, Mass.
1876.

Entered according to Act of Congress, in the year 1876, by the
UNITED STATES CENTENNIAL COMMISSION,
in the office of the Librarian of Congress, at Washington, D. C.
ALL RIGHTS RESERVED.
Centennial Catalogue Company Assignees of Copyright.

CONTENTS.

List of Buildings and Special Exhibits 6

Subject Index, National Exhibits 8

Machinery Hall 9

Key to the Notation 10

Ground Plan of Machinery Hall 11

Synopsis of the Classification 12

Classification of Department V., Machinery 13

Catalogue of the Department of Machinery 17

United States Government Buildings 71

Catalogue of the United States Government Exhibition 73

Women's Pavilion 84

Catalogue of the Women's Exhibition 87

Shoe and Leather Exhibition Building 104

Catalogue of the Shoe and Leather Exhibition 105

Special Buildings and Exhibits, Descriptions and Catalogues 117

BUILDINGS AND SPECIAL EXHIBITS WITHIN THE EXHIBITION GROUNDS.

[NOTE.—The buildings bear the numbers prefixed to them in this table, being the numbers adopted by the Centennial Guide Book Co. (Limited).]

Buildings South of the Avenue of the Republic.

No.		Part	Page
1.	Main Exhibition Building,	I.	23
2.	Machinery Hall,	III.	9
3.	Machine Shop,	III.	117
4.	American Boiler House,	III.	117
5.	Corliss Boiler House,	III.	117
6.	British Boiler House,	III.	117
7.	Shoe and Leather Exhibition Building,	III.	105
8.	Office Centennial Board of Finance,	III.	117
9.	Office U. S. Centennial Commission,	III.	117
10.	Centennial National Bank,	III.	117
11.	Weimer Machine Works,	III.	118
12.	Bartholdi Fountain	III.	146
13.	Catholic Total Abstinence Union Fountain,	III.	146
14.	Fuller, Warren, & Co., Heating Apparatus,	III.	118
15.	Gillender & Sons, Glassware Manufactory,	III.	118
16.	Camp of West Point Cadets,	III.	118
17.	Iron Pipe,	III.	118
18.	Liberty Stove Works,	III.	118
19.	Annex, Saw Mill,	III.	119
20.	Boiler House,	III.	119
21.	Railway Engine House,	III.	119
22.	St. Cecilia Organs,	III.	119
23.	Automatic Railway,	III.	119
24.	Monument—American Soldier,	III.	119
25.	Gunpowder Pile-Driver,	III.	119
26.	Jesse Star & Son, Iron Works,	III.	119
27.	West End Railway Offices,	III.	119
28.	Pneumatic Tubes,	III.	119
29.	New England Granite Co.'s Exhibit,	III.	120
30.	Railroad Crossings,	III.	120
31.	State of Nevada Quartz Mill,	III.	120
32.	Store House,	III.	120
33.	Friction Drum,	III.	120
34.	Stokes & Parrish, U. S. Hoisting Machine,	III.	120
35.	Chilean Amalgamating Machinery,	III.	120
36.	Campbell Printing Press,	III.	120
37.	Old Locomotive and Car,	III.	121
38.	Car House,	III.	121
39.	Police Station,	III.	121
40.	Averill Paint Co.,	III.	121
41.	Centennial Catalogue Co.,	III.	121
42.	Stokes & Parrish, Boiler House,	III.	121
43.	Ehret's Waterproof Roofing,	III.	121
44.	Tombstones,	III.	122
45.	Terra Cotta Pipe,	III.	122
46.	Mineral Annex, 1 and 2,	III.	122
47.	Fireproof Ventilated Buildings,	III.	122
48.	Swings,	III.	122
49.	Ornamental Stone Work,	III.	122

Buildings North of the Avenue of the Republic, and West of Belmont Av.

No.		Part	Page
51.	United States Government Building,	III.	73
51½.	Bartholdi Electric Light,	III.	122
52.	United States Hospital,	III.	73
52½.	Howe Monument,	III.	122
53.	United States Hospital Tent,	III.	73
53½.	Jerusalem Bazaar,	III.	122
54.	United States Laboratory,	III.	73
54½.	Office Philadelphia "Times,"	III.	123
55.	Pennsylvania State Building,	III.	123
55½.	Hungarian Wine Pavilion,	III.	123
56.	Ohio State Building,	III.	123
56½.	Police Station,	III.	124
57.	Indiana State Building,	III.	124
57½.	Sponge Fishers of Turkey,	III.	124
58.	Illinois State Building,	III.	124
58½.	Bethlehem Bazaar,	III.	124
59.	Wisconsin State Building,	III.	124
59½.	Fog Horn and Bell,	III.	124
60.	Michigan State Building,	III.	124
61.	New Hampshire State Building,	III.	125
62.	Connecticut State Building,	III.	125
63.	Massachusetts State Building,	III.	125
64.	Delaware State Building,	III.	125
65.	Maryland State Building,	III.	125
66.	Arkansas State Building,	III.	125
67.	Japanese Dwelling,	III.	125
68.	West Virginia State Building,	III.	125
69.	Canadian Log House,	IV.	134
70.	Missouri State Building,	III.	130
71.	British Government Building,	III.	130
72.	British Government Building,	III.	130
73.	British Government Building,	III.	130
74.	New York State Building,	III.	130
75.	Liénard's Relief Plans, Paris, Jerusalem, Italy, etc.,	III.	130
76.	Pop-corn Stand,	III.	131
77.	Cigar Stand,	III.	131
78.	Soda Water Stand,	III.	131
79.	Tunisian Café and Bazaar,	III.	131
80.	Columbus Monument,	III.	131
81.	Drinking Fountains,	III.	131
82.	Restaurant "Trois Frères Provençaux,"	III.	131
83.	Office New York "Tribune,"	III.	131
84.	World's Ticket Office, Cook, Son, & Jenkins,	III.	131
85.	Loiseau's Pressed Fuel Company,	III.	132
86.	Spanish Government Buildings,	III.	132
87.	United States Signal Office,	III.	141
88.	Tennessee State Building,	III.	141
89.	Mississippi State Building,	III.	142
90.	George's Hill Restaurant,	III.	142
91.	Bishop Allen Monument,	III.	142

BUILDINGS AND SPECIAL EXHIBITS WITHIN THE EXHIBITION GROUNDS.

[NOTE.—Descriptions of the Buildings will be found at the indicated part and page of the Official Catalogue.]

Buildings North of the Avenue of the Republic, and West of Belmont Av.

No.		Part	Page
92.	Office of the Boston "Advertiser" and Boston "Herald,"	III.	142
93.	Rowell's Newspaper Exhibition Building,	III.	142
94.	California State Building,	III.	142
95.	Centennial Fire Patrol, No. 1,	III.	142
96.	Turkish Café,	III.	143
97.	Office Frank Leslie's Publications,	III.	143
98.	Iowa State Building,	III.	143
99.	Rhode Island State Building,	III.	143
100.	Vermont State Building,	III.	143

Buildings East of Belmont Avenue, and South of Fountain Avenue.

101.	Art Gallery,	II.	9
102.	Art Gallery Annex,	II.	10
103.	B'nai B'rith Monument of Religious Liberty,	III.	143
104.	Photographic Art Building,	II.	137
105.	Vienna Bakery and Coffee House,	III.	143
106.	Principal Annex to Main Exhibition Building,	I.	374
107.	Swedish Government Building,	III.	144
108.	Japanese Bazaar,	III.	144
109.	The Judges' Hall,	III.	144
110.	Centennial Photographic Co.,	III.	144
111.	Sheet-metal Pavilion,	III.	144
112.	German Government Building,	III.	144
113.	Railroad Ticket Office,	III.	144
114.	Office United States Centennial Commission,	III.	145
115.	Brazilian Government Build'g,	III.	145
116.	The Dairy,	III.	145
117.	Restaurant "La Fayette,"	III.	145
118.	House of Public Comfort,	III.	145
119.	Empire Transportation Co.,	III.	145
120.	French Government Building,	III.	145
121.	Centennial Fire Patrol, No. 2,	III.	145
122.	Penn'a Educational Building,	III	146
123.	Telegraph Office,	III.	147
124.	American Fusee Company,	III.	147
125.	Klautscheck, Thomas, & Stewart's Glass Magazine,	III.	147
126.	Moorish Villa,	III.	147
127.	American Bible Society,	III.	147
128.	Hunter's Camp,	III.	147
129.	Office Water Department,	III.	148
130.	Soda Water Stands,	III.	148
131.	Cigar Stands,	III.	148
132.	Singer's Sewing Machines,	III.	148
133.	Centennial Medical Departm't,	III.	148
134.	Portugal Government Building,	III.	148
135.	Bankers' Building,	III.	148
136.	French Glass Exhibit,	III.	149
137.	Kindergarten,	III.	149
138.	Centennial Police Station,	III.	149
139.	Philadelphia City Building,	III.	149
140.	Music Pavilion,	III.	149
141.	Burial Caskets,	III.	149
142.	Perforated Metal Building,	III.	149
143.	Rubber Roofing,	III.	149
144.	Cuban Acclimation Office,	III.	149
145.	Naval Group,	III.	149
146.	The Dying Lioness,	III.	149

Buildings East of Belmont Avenue, and North of Fountain Avenue.

151.	Horticultural Hall,	IV.	147
152.	Agricultural Hall,	IV.	9
153.	The Women's Pavilion,	III.	85
154.	The Women's School House,	III.	150
155.	New Jersey State Building,	III.	150
156.	Restaurant of the South,	III.	150
157.	Kansas and Colorado State Building,	III.	150
158.	New England Farmer's Home 100 years ago, and Modern Kitchen,	III.	150
159.	Great American Restaurant,	III.	150
160.	German Restaurant,	III.	151
161.	Tea and Coffee Press,	III.	151
162.	Butter and Cheese Factory,	III.	151
163.	Soda Water Stand,	III.	151
164.	Cigar Stand,	III.	151
165.	Farm Wagon Building,	IV.	135
166.	Pomological Building,	IV.	135
167.	Brewers' Building,	IV.	136
168.	Model House Apiary,	IV.	140
169.	Guano Company,	III.	151
170.	Special Flower Exhibit Building,	III.	170
171.	Wind Mills,	IV.	140
172.	Office "Ohio Farmer,"	IV.	140
173.	Hay Press,	III.	152
174.	Police Station,	III.	152
175.	Elevated Railroad,	III.	152
176.	Boiler House,	III.	152
177.	Virginia State Building,	III.	152
178.	Protective Fire Apparatus,	III.	152
179.	Pop-corn Stands,	III.	152
180.	J. L. Mott Co. Fountain,	III.	152

SUBJECT INDEX, NATIONAL EXHIBITS.

DEPARTMENT V.—MACHINERY.

NATIONS.	Machines, Tools, etc., of Mining, Chemistry, etc.	Machines and Tools for Working Metal, Wood, and Stone.	Machines and Implements of Spinning, Weaving, etc.	Machines, etc., used in Sewing, Making Clothing, etc.	Machines for Printing, Making Books, Paper-making.	Motors, Power Generators, etc.	Hydraulic and Pneumatic Apparatus.	Railway Plant, Rolling-Stock, etc.*	Machinery used in Preparing Agricultural Products.	Aërial, Pneumatic, and Water Transportation.	Machinery especially adapted to the Requirements of the Exhibition.	Shoe and Leather Exhibition.	Women's Work.	Special Buildings.
United States	17	19	28	30	32	34	40	45	48	50	52	105	87	117
Great Britain	54	54	54	55	55	55	55	56	56	56	...	116	98	130
Jamaica	...	...	...	...	...	...	...	...	...	...	...	.....	99	.....
Canada	57	57	57	57	...	58	58	58	59	59	...	.....	99	130
Tasmania	...	...	...	...	...	...	...	...	...	...	...	.....	100	.....
France	60	60	60	60	60	60	61	61	61	61	...	.....	100	145
Germany	62	62	62	62	62	62	62	62	62	62	...	116	.....	144
Austria	63	...	63	...	...	63	...	63	63	...	...	.....	.....	.....
Switzerland	...	...	...	...	...	63	...	63	...	...	...	.....	.....	.....
Belgium	64	64	64	64	64	64	64	64	...	...	...	.....	100	.....
Netherlands	...	65	...	65	...	...	65	...	....	...	...	.....	100	.....
Denmark	...	...	...	...	...	...	...	...	...	...	...	.....	100	.....
Sweden	65	65	...	66	66	66	66	66	...	66	...	....	100	144
Italy	67	...	67	...	67	67	67	...	67	67	...	.....	100	.....
Tunis	...	...	...	...	...	...	...	...	....	...	...	.....	101	131
Japan	...	...	...	...	...	...	...	...	...	...	...	.....	.....	144
Brazil	...	68	68	...	...	68	68	...	68	68	...	.....	101	145
Argentine Republic	...	...	69	...	69	...	...	69	....	69	...	.....	.....	.....
Chili	...	...	...	...	...	...	...	...	....	...	...	.....	.....	120
Spain	...	...	...	...	...	...	...	...	....	...	...	.....	.....	132
Portugal	...	...	...	...	...	...	...	...	....	...	...	.....	.....	148
Turkey	...	...	...	...	...	...	...	...	....	...	...	.....	.....	143
Russia	69	69	69	69	69	70	70	70	70	70	...	116	.....	.....
U. S. Government	...	...	...	...	...	...	...	...	...	. .	...	.....	.....	72
Women's Centennial Executive Com.	...	...	...	...	...	...	...	...	....	...	...	.....	.....	85

* Railway plant, cars, etc., are largely exhibited in the Annex (No. 106) to the Main Building, Catalogue, Part I., page 374.

Note.—The Machinery of the following countries is installed wholly or in part in the Main Building, and catalogued in Part I., viz. :

	Page		Page
New South Wales	340	Austria	211
Victoria	162	Denmark	224
Bermuda	174	Netherlands	361
Gold Coast	177	Norway	230
Queensland	179	Hawaii	251
Tasmania	182	Chili	262
India	186	Mexico	267
Canada	191		

No. 20. MACHINERY HALL.

Size, 360 by 1402 feet; annex, 208 by 210 feet.

Engineers and Architects, HENRY PETTIT, JOSEPH M. WILSON, *Philadelphia.*

Contractor, PHILIP QUIGLEY, *Wilmington, Del.*

Wrought and cast iron furnished by PUSEY, JONES, & CO., *Wilmington, Del.*

MACHINERY HALL is located west of the intersection of Belmont and Elm avenues, at a distance of 542 feet from the west front of the Main Exhibition Building, and 274 feet from the north side of Elm avenue. The north front of the building is upon the same line as that of the Main Exhibition Building, thus presenting a frontage of 3824 feet from the east to the west ends of the exhibition buildings upon the principle avenue within the grounds.

The principal portion of the structure is one story in height, showing the main cornice upon the outside at 40 feet from the ground, the interior height to the top of the ventilators in the avenues being 70 feet, and in the aisles 40 feet. To break the long lines upon the exterior, projections have been introduced upon the four sides, and the main entrances finished with facades, extending to 78 feet in height. The east entrance forms the principal approach from street-cars, from the Main Exhibition Building, and from the Pennsylvania Railroad depot. Along the south side are the boiler houses and other buildings for special kinds of machinery. The west entrance affords the most direct communication with George's Hill, which point affords the best view of the entire exhibition grounds.

The arrangement of the ground plan shows two main avenues 90 feet wide by 1360 feet long, with a central aisle between, and an aisle on either side. Each aisle is 60 feet in width; the two avenues and three aisles making the total width of 360 feet. At the centre of the building is a transept of 90 feet in width, which at the south end is prolonged beyond the Main Hall. This transept, beginning at 36 feet from the Main Hall and extending 268 feet, is flanked on either side by aisles of 60 feet in width, and forms the annex for hydraulic machines. The promenades in the avenues are 15 feet in width, in the transept 25 feet, and in the aisles 10 feet. All other walks extending across the building are 10 feet in width, and lead at either end to exit doors.

The foundations consist of piers of masonry. The superstructure consists of solid timber columns supporting roof trusses, constructed with straight wooden principals and wrought iron ties and struts. As a general rule, the columns are placed lengthwise of the building, at the uniform distance apart of 16 feet. The columns are 40 feet high to the heel block of the 90 feet span roof trusses over the avenues, and they support the heel of the 60 feet spans over the aisles at the height of 20 feet. The outer walls are built of masonry to a height of five feet, and above that are composed of glazed sash placed between the columns. Portions of the sash are movable

for ventilation. Louvre ventilators are introduced in continuous lengths over both the avenues and the aisles. The building is lit entirely by side light.

The motive power is furnished by a Corliss engine of 1400 horse power. There are eight main lines of shafting, extending almost the entire length of the structure, and countershafts are introduced into the aisles where needed. The hangers are attached at the height of 20 feet from the floor.

The annex for hydraulic machines contains a tank 60 feet by 160 feet, with depth of water of 10 feet. In this hydraulic machinery is exhibited in full operation. At the south end of this tank is a waterfall 35 feet high by 40 feet wide, supplied from the tank by the pumps upon exhibition.

The contract in the erection of Machinery Hall was made January 27th, 1875, and the building was begun forthwith, and finished October 1st, 1875. The cost was $542,300. The exhibition area covers about 14 acres.

KEY TO THE NOTATION.

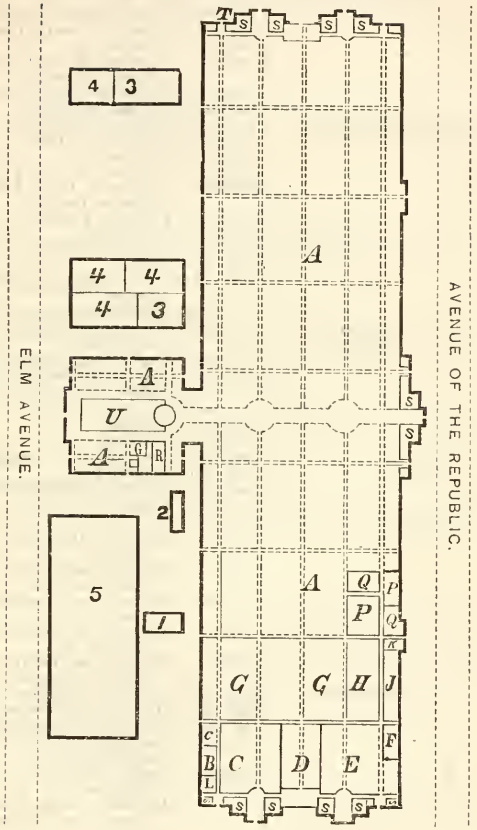
THE location of objects in the Machinery Building is shown by a letter and figure, indicating the nearest column of the building. The letters—A, B, C, to F—designate the successive ranges of columns, proceeding northward from the southern wall across the width of the building; the figures, the number of the column in each range, counting westwardly from the eastern wall, the entire length of the building, from 1 to 88. Thus C 5 is the column in the third range from the south, and the fifth from the eastern end of the building. The northwesternmost column is F 88.

The class of the classification (see page 13) to which each exhibit belongs is indicated by the small figures at the end of the line.

MACHINERY HALL.

Scale, 320 ft. to 1 in.





A *United States.*
B *Austria.*
C *German Empire.*
D *Canada.*
E *France.*
F *Spain.*
G *Great Britain.*
H *Belgium.*
J *Sweden.*
K *Denmark.*
L *Italy.*
P *Brazil.*
Q *Russia.*
R *Switzerland.*
S *Restaurants, etc.*
T *Ladies' Waiting-room.*
U *Tank.*
1. English Boiler-house.
2. Corliss Boiler-house.
3. Boiler-houses.
4. Machine Shop and Annex.
5. Shoe and Leather Shop.

Length, 1402 ft. Width, 360 ft. Height of Avenues, 70 ft. Height of Aisles, 40 ft.

SYNOPSIS OF THE CLASSIFICATION.

LOCATION.	DEPARTMENTS.	CLASSES.	GROUPS.
MAIN BUILDING.	I. MINING AND METALLURGY.	100—109	Minerals, Ores, Stone, Mining Products.
		110—119	Metallurgical Products.
		120—129	Mining Engineering.
	II. MANUFACTURES.	200—205	Chemical Manufactures.
		206—216	Ceramics, Pottery, Porcelain, Glass, etc.
		217—227	Furniture, etc.
		228—234	Yarns and Woven Goods of Vegetable or Mineral Materials.
		235—241	Woven and Felted Goods of Wool, etc.
		242—249	Silk and Silk Fabrics.
		250—257	Clothing, Jewelry, etc.
		258—264	Paper, Blank Books, Stationery.
		265—271	Weapons, etc.
		272—279	Medicine, Surgery, Prothesis.
		280—284	Hardware, Edge Tools, Cutlery, and Metallic Products.
		285—291	Fabrics of Vegetable, Animal, or Mineral Materials.
		292—296	Carriages, Vehicles, and Accessories.
	III. EDUCATION AND SCIENCE	300—309	Educational Systems, Methods, and Libraries.
		310—319	Institutions and Organizations.
		320—329	Scientific and Philosophical Instruments and Methods.
		330—339	Engineering, Architecture, Maps, etc.
		340—349	Physical, Social, and Moral Condition of Man.
ART GALLERY.	IV. ART.	400—409	Sculpture.
		410—419	Painting.
		420—429	Engraving and Lithography.
		430—439	Photography.
		440—449	Industrial and Architectural Designs, etc.
		450—459	Ceramic Decorations, Mosaics, etc.
MACHINERY BUILDING.	V. MACHINERY.	500—509	Machines, Tools, etc., of Mining, Chemistry, etc.
		510—519	Machines and Tools for working Metal, Wood, and Stone.
		520—529	Machines and Implements of Spinning, Weaving, etc.
		530—539	Machines, etc., used in Sewing, Making Clothing, etc.
		540—549	Machines for Printing, Making Books, Paper Working, etc.
		550—559	Motors, Power Generators, etc.
		560—569	Hydraulic and Pneumatic Apparatus.
		570—579	Railway Plant, Rolling Stock, etc.
		580—589	Machinery used in Preparing Agricultural Products.
		590—599	Aerial, Pneumatic, and Water Transportation.
			Machinery, and Apparatus, especially adapted to the requirements of the Exhibition.
AGRICULTURAL BUILDING.	VI. AGRICULTURE.	600—609	Arboriculture and Forest Products.
		610—619	Pomology.
		620—629	Agricultural Products.
		630—639	Land Animals.
		640—649	Marine Animals, Fish Culture, and Apparatus.
		650—662	Animal and Vegetable Products.
		665—669	Textile Substances of Vegetable or Animal origin.
		670—679	Machines, Implements, and Processes of Manufacture.
		680—689	Agricultural Engineering and Administration.
		690—699	Tillage and General Management.
HORTICULTURAL BUILDING.	VII. HORTICULTURE.	700—709	Ornamental Trees, Shrubs, and Flowers.
		710—719	Hot Houses, Conservatories, Graperies.
		720—729	Garden Tools, Accessories of Gardening.
		730—739	Garden Designing, Construction, and Management.

CLASSIFICATION.

DEPARTMENT V.—MACHINERY.

MACHINES, TOOLS, AND APPARATUS OF MINING, METALLURGY, CHEMISTRY, AND THE EXTRACTIVE ARTS.

CLASS 500.—Rock drilling.
CLASS 501.—Well and shaft boring.
CLASS 502.—Machines, apparatus, and implements for coal cutting.
CLASS 503.—Hoisting machinery and accessories.
CLASS 504.—Pumping, draining, and ventilating.
CLASS 505.—Crushing, grinding, sorting, and dressing. Breakers, stamps, mills, pans, screens, sieves, jigs, concentrators.
CLASS 506.—Furnaces, smelting apparatus, and accessories.
CLASS 507.—Machinery used in Bessemer process.
CLASS 508.—Chemical manufacturing machinery. Electroplating. Paint and powder mills. Blacking and soap-making machinery.
CLASS 509.—Gas machinery and apparatus.

MACHINES AND TOOLS FOR WORKING METAL, WOOD, AND STONE.

CLASS 510.—Planing, sawing, veneering, grooving, mortising, tonguing, cutting, moulding, stamping, carving, and cask-making machines, etc., cork-cutting machines.
CLASS 511.—Direct acting steam sawing machines, with gang saws. Bark mills.
CLASS 512.—Rolling mills, bloom squeezers, blowing fans. Rivet, nail, bolt, and tack making machinery.
CLASS 513.—Furnaces and apparatus for casting metals, with specimens of work.
CLASS 514.—Steam, trip, and other hammers, with specimens of work, anvils, forges, bellows.
CLASS 515.—Planing, drilling, slotting, turning, shaping, punching, stamping, cutting, and coining machines. Wheel cutting and dividing machines, emery wheels, drills, taps, gauges, dies, etc. Grindstones.
CLASS 516.—Stone-sawing and planing machines, dressing, shaping, and polishing, sand blasts, Tilghman's machines, glass-grinding machines, etc.
CLASS 517.—Brick, pottery, and tile machines. Machines for making artificial stone.
CLASS 518.—Furnaces, moulds, blowpipes, etc., for making glass and glassware.
CLASS 519.—Tools, implements, etc., for working metal, wood, and stone.

MACHINES AND IMPLEMENTS OF SPINNING, WEAVING, FELTING, AND PAPER MAKING.

CLASS 520.—Machines for the manufacture of silk goods.
CLASS 521.—Machines for the manufacture of cotton goods.
CLASS 522.—Machines for the manufacture of woolen goods, carpets, and tapestry
CLASS 523.—Machines for the manufacture of linen goods.

CLASS 524.—Machines for the manufacture of rope and twine, and miscellaneous fibrous materials.
CLASS 525.—Machines for the manufacture of paper and felting.
CLASS 526.—Machines for the manufacture of india-rubber goods.
CLASS 527.—Machines for the manufacture of mixed fabrics.
CLASS 528.—Machines for the manufacture of wire cloth.

MACHINES, APPARATUS, AND IMPLEMENTS USED IN SEWING AND MAKING CLOTHING AND ORNAMENTAL OBJECTS.

CLASS 530.—Machines used in the manufacture of lace, floor-cloths, fancy embroidery, hair, ribbons, etc.
CLASS 531.—Sewing and knitting machines, clothes, corset, hat, and bonnet making machines.
CLASS 532.—Machines for preparing and working leather.
CLASS 533.—Machines for making boots and shoes.
CLASS 534.—Machines for ironing, drying, scouring, and cleaning.
CLASS 535.—Machines for making clocks and watches.
CLASS 536.—Machines for making jewelry.
CLASS 537.—Machines for making buttons, pins, needles, etc.
CLASS 538.—Pipes for smoking.

MACHINES AND APPARATUS FOR TYPESETTING, PRINTING, STAMPING, EMBOSSING, AND FOR MAKING BOOKS, AND PAPER WORKING.

CLASS 540.—Printing, stamping, embossing, and lithographing presses.
CLASS 541.—Typecasting machines, apparatus of stereotyping.
CLASS 542.—Types and typesetting machines. Type-writing machines.
CLASS 543.—Printers' furniture.
CLASS 544.—Bookbinding machines.
CLASS 545.—Paper-folding machines.
CLASS 546.—Paper and card cutting machines, paper box machines.
CLASS 547.—Envelope machines.

MOTORS AND APPARATUS FOR THE GENERATION AND TRANSMISSION OF POWER.

CLASS 550.—Boilers and all steam or gas generating apparatus for motive purposes.
CLASS 551.—Water-wheels, water engines, hydraulic rams, windmills.
CLASS 552.—Steam, air, or gas engines, electro-magnetic engines.
CLASS 553.—Apparatus for the transmission of power, shafting, belting, cables, transmission of power by compressed air, etc., gearing, cables.
CLASS 554.—Screw propellers, wheels for the propulsion of vessels, and other motors.
CLASS 555.—Implements and apparatus used in connection with motors, steam gauges, manometers, etc. Anti-friction metals.

HYDRAULIC AND PNEUMATIC APPARATUS, PUMPING, HOISTING, AND LIFTING.

CLASS 560.—Pumps and apparatus for lifting and moving liquids.
CLASS 561.—Pumps and apparatus for moving and compressing air or gas.
CLASS 562.—Pumps and blowing engines, blowers and ventilating apparatus.
CLASS 563.—Hydraulic jacks, presses, elevators, lifts, meters, cranes.
CLASS 564.—Fire engines, hand, steam, or chemical, and fire extinguishing apparatus, hose, ladders, and fire-escapes, etc.
CLASS 565.—Beer engines, soda-water machines, bottling apparatus, corking machines.
CLASS 566.—Stop valves, cocks, pipes, etc.
CLASS 567.—Diving apparatus and machinery.
CLASS 568.—Ice machines.

RAILWAY PLANT, ROLLING STOCK, AND APPARATUS.

CLASS 570.—Locomotives, models, drawings, plans, etc.
CLASS 571.—Carriages, wagons, trucks, cars, etc. Scales.

CLASS 572.—Brakes, buffers, couplings, and snow-plows.
CLASS 573.—Wheels, tires, axles, bearings, springs, etc.
CLASS 574.—Permanent ways, ties, chairs, switches, etc.
CLASS 575.—Station arrangements, signals, water-cranes, turn-tables.
CLASS 576.—Miscellaneous locomotive attachments.
CLASS 577.—Street railways and cars.

MACHINES USED IN PREPARING AGRICULTURAL PRODUCTS.

CLASS 580.—Flour mills.
CLASS 581.—Sugar refining machines.
CLASS 582.—Confectioners' machinery.
CLASS 583.—Oil-making machinery.
CLASS 584.—Tobacco manufacturing machines.
CLASS 585.—Mills for spices, coffee, etc.
CLASS 586.—Machines for preparing fancy goods.
CLASS 587.—Machines for preparing malt and spirituous liquors.

AERIAL, PNEUMATIC, AND WATER TRANSPORTATION.

CLASS 590.—Suspended cable railways.
CLASS 591.—Transporting cables.
CLASS 592.—Balloons, flying machines, etc.
CLASS 593.—Pneumatic railways, pneumatic dispatch.
CLASS 594.—Boats and sailing vessels. Sailing vessels used in commerce. Sailing vessels used in war. Yachts and pleasure boats. Rowing boats of all kinds. Life boats and salvage apparatus, with life rafts, belts, etc. Submarine armor, diving bells, etc. Ice boats. Models and drawings.
CLASS 595.—Steamships, steamboats, and all vessels propelled by steam.
CLASS 596.—Vessels for carrying telegraph cables and railway trains, also coal barges, water boats, and dredging machines, screw and floating docks, and for other special purposes.
CLASS 597.—Steam capstans, windlass, deck-winches, and steering apparatus, fans.

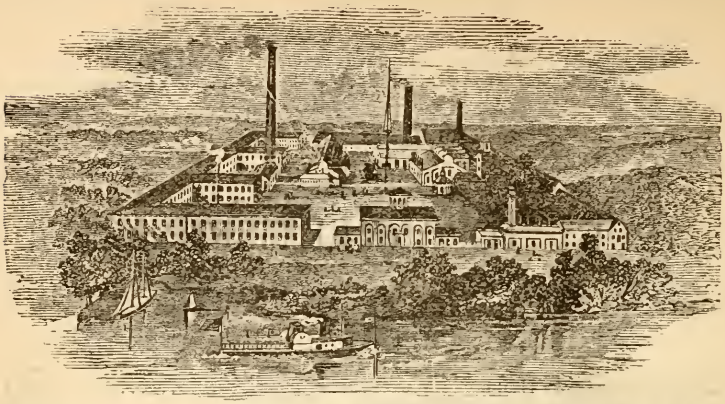
MACHINERY AND APPARATUS ESPECIALLY ADAPTED TO THE REQUIREMENTS OF THE EXHIBITION.

Boilers, engines, cranes, pumps, etc.

INDEX TO ADVERTISEMENTS.

PAGE

American Newspaper Union 44
Automatic Fire Extinguisher and Alarm 54
Asbestos Materials ..... Facing third page of cover.
Bridesburg Manufacturing Co 17
Baldwin Locomotive Works 41
Baeder, Adamson & Co 71
Baugh's, E. P., Patent Sectional Mills ..... Third page of cover.
Drown, W. A., & Co 40
French Restaurant 55
Gloucester Iron Works 17
Greenwood & Batley 54
Harrison Boiler Works 40
Haseltine Galleries 40
Lawson, Samuel, & Sons 55
Morris, Tasker & Co. ..... Facing second page of cover.
McKay's Equilibrium Drill 54
Pancoast & Maule 28
Pritchett, Baugh & Co 29
Pennsylvania Railroad 70
Rue's Little Giant Injector 29
Springfield Fire and Marine Insurance Co 71
Sun Newspaper 45
Scanlan, Jr., & Co 54
West Philadelphia Passenger Railway Company ..... Second page of cover.
Wiedershiem, John A. & Co 71



THE BRIDESBURG MANUFACTURING COMPANY

Offices, 65 and 67 North Front Street, Philadelphia,

IS THOROUGHLY REORGANIZED.

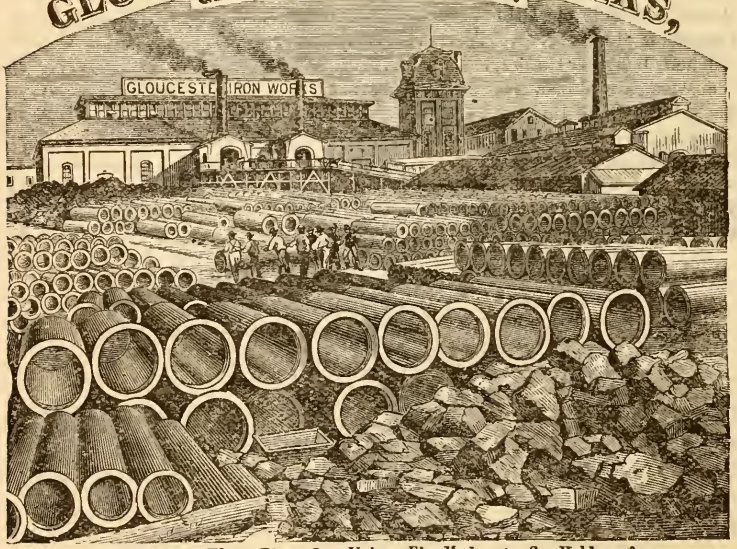
It builds none but the best machinery. It builds machinery strictly to specifications. It puts any of its machinery in on competition. It furnishes machinery in contract time, under forfeiture. It furnishes repairs promptly and at moderate prices. It can build ten Looms a day. It can build ten Spinning Frames a week. It can build five sets of Cards in a fortnight. It can build five self-acting Mules in a month. It can build Hand Mules, Cotton Cards, Twisters, Drawing Frames, Railway Heads, Pickers, Feeders, Renovators, Bobbin Winders, Beaming Machines, Warping Mills, Spreaders, Reels, &c., in any quantity required. It asks no pay until efficiency is demonstrated. It quotes low prices, and uniform to all.

David S. Brown, Pres't.
Benj. Chew, Treas.

Jas. P. Michellon, Sec'y.
Wm. Sexton, Sup't.

GLOUCESTER IRON WORKS,

GLOUCESTER CITY, NEW JERSEY.



Cast Iron Gas & Water Pipes, Stop Valves, Fire Hydrants, Gas Holders, &c.

Office, Philadelphia, No. 6 North Seventh St.

DEPT. V.—MACHINERY.

UNITED STATES.

Mining Machinery, Drills.

Machines, Tools, and Apparatus of Mining, Metallurgy, Chemistry, and the Extractive Arts.

1 **Waring Rock Drill Co., New York, N. Y.**—Mining, quarrying, and tunneling drills. A 54. 500

2 **Pennsylvania Diamond Drill Co.,** Pottsville, Pa.—Prospecting drill, quarry drill, and samples of cores, continuous cylindrical sections of rock and mineral strata, bored out to any depth, and furnished: therefore, is a perfectly reliable method of proving mineral lands. Artesian wells bored of any size and depth. A 55. 500

2*a* **Beamisdarfer & Eby, Campbellstown,** Pa.—Rock-drilling machine. (*Annex 2.*) 500

2*b* **Union Rock Drill Co., New York,** N. Y.—Rock drills. A 60. 500

2*c* **American Diamond Rock Boring** Co., Providence, R. I.—Diamond-pointed rock drills. A 54. 500

3 **Gardiner Drill Co., New York, N. Y.** —Rock-drilling machines and appliances for operating in mines and quarries. A 55. 500

4 **Weaver, W., Phœnixville, Pa.**—The Victor rock drill. Two men with this machine will do the work of six by hand. It drills holes from half an inch to six inches in diameter to any depth and at any angle required. Price for machine driven by hand, $250; by steam, $750. A 55. 500

5 **Ingersoll Rock Drill Co., New York,** N. Y.—Steam or compressed air rock-drilling machine. A 60–61. 500

6 **Bolles, J. N., Baltimore, Md.**—Machinery for boring artesian wells, in operation. (*Outside of building.*) 501

6*a* **Mowbray, George M., North** Adams, Mass.—Electric batteries and exploders. A 59. 501

6*b* **Randolph, Theodore F., Morris-**town, N. J.—Ditcher and excavator. C 77. 501

6*c* **Roberts, E. A. L., Titusville, Pa.**—Oil well torpedo. C 78. 501

6*d* **Robinson, John E., Boston, Mass.**—Sand and air chamber and artesian well. (*Annex 3.*) 501

7 **Bolles, Jesse N., Baltimore, Md.**—Boring machinery for artesian wells. A 56. 501

8 **Melvin & McMorris, Philadelphia,** Pa.—Artesian well, drilling and pumping. (*Outside of building.*) 501

9 **Pierce, Charles D., Peru, La Salle** Co., Ill.—Well boring and prospecting machine. One man and horse can bore 20 feet per hour. Bores any size or depth. Boulders, hard-pan, and quicksand easily handled. Has an established reputation in every State and Territory. $25 per day is made with one machine. Agents wanted in every county, also in foreign countries. Illustrated catalogue sent free on application. Address as above. (*Outside of building.*) 501

10 **Monitor Coal Cutter Co., Brazil, Ind.** —Compressed air coal-cutting machine. A 58. 502

11 **Hunt, Chas. W., New York, N. Y.**— Machinery for unloading vessels and storing cargoes. A 56. 503

12 **Sternbergh, James Hervey, Reading,** Pa.—Surface emery-grinding machine. B 37. 505

13 **Blake Crusher Co., New Haven,** Conn.—Machine for crushing ores, stones, etc. Extensively used for breaking stone for MacAdam roads, ballasting railroads, and for concrete. In mining operations, for the rapid and economical crushing of ores of all kinds, it has a world-wide reputation. A 58 *and* A 63. 505

14 **Fulton Foundry Co., Cleveland, O.**— Turn-table. A 58–59. 505

14*a* **Krom, S. R., New York, N. Y.**— Ore and laboratory separator; ore crushers. A 60. 505

15 **Kreider, Campbell, & Co., Philadel-**phia, Pa.—E 50–51.
a Mineral mill. 505
b Paint mills, paint mixer. 508

16 **Coxe Bros. & Co., Jeddo, Pa.**—Working model of coal breaker. A 63. 505

17 **Baugh & Sons, Philadelphia, Pa.**— Mills for crushing and grinding minerals, bones, etc. A 61–62. 505

18 **State of Nevada, Gold Hill, Nevada.** —Quartz mill. (*South of Machinery Hall.*) 505

19 **Poole & Hunt, Baltimore, Md.**— Fertilizer and paint mixer. C 79. 505

20 **Bradford, H., Philadelphia, Pa.**— Coal and ore separator. This machine separates all solid substances that differ in specific gravity, and from the smallest particles to four inches in size. For sale by H. Bradford, room 26, Merchants' Exchange, corner Third and Walnut streets, Philadelphia. A 73. 505

21 **Albright & Stroh, Mauch Chunk,** Pa.—Coal jig for separating slate from coal, etc. B 19. 505

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

Mining, Chemical, Gas Machinery.

22 Ball, Edwin P., Chicopee, Mass.—Steam stamping machine for crushing ores and minerals. (*Annex 3.*) 505

23 Bowron, William M., Philadelphia, Pa.—Waste house, fire grates, blast furnace, hot blast stoves. A 57. 506

24 Koenigsberg, J., Lock Haven, Pa.—Model of coke oven and discharging machine. A 57. 506

25 Weimer, P. L., Lebanon, Pa.—Charging apparatus for blast furnaces, blast furnace fixtures. B 69. 506

26 Edgemoor Iron Co., Edgemoor, Del.—Rotary puddler, hydraulic forged eye-bars, wrought and cast iron work for Main Exhibition Building. C 22. 506

26*a* Caldwell & Mather, Philadelphia, Pa.—Melting furnace. (*Annex 1.*) 506

26*b* Manes, James, sr., New Haven, Conn.—Revolving globe furnace for smelting gold and silver ores, etc. A 57–58. 506

26*c* Baker, Charles H., Philadelphia, Pa.—Self-gauging Bessemer tuyeres. (*Annex 2.*) 507

27 Tully, John W., Industrial Paint, Varnish, and Filler Works, Twentieth and Parrish streets, Philadelphia, Pa.—Paints and varnishes, scraper filling, Belgian varnish filler, American paint filling, Roman filler, iron priming and finishing paint, lubricating paste, wood filling, and French washing blue. A 67. 508

28 Bryan & Snyder, Philadelphia, Pa.—Manufacture of silver-plated ware. A 66. 508

29 Zindgraf & Hohenadel, 215 Race street, Philadelphia, Pa.—Machine for grinding and mixing paint. Manufacturers of machinery for grinding and mixing paint. Also mills for grinding drugs, spices, etc. Our mills are made with an improved stand for adjusting upper stone. A 66. 508

30 Fichtenberg, Werner, New York, N. Y.—Insect powder, exterminating powders and papers, powder bellows, bird lime. A 66. 508

31 Reeves, John W., Philadelphia, Pa.—Soap cutting machine. A 67. 508

31*a* Condit, Hanson, & Van Winkle, Newark, N. J.—Electro-plating machine. Condit, Hanson & Van Winkle, 236 Market street, corner Mulberry, Newark, N. J., exhibit the "Weston-Dynamo Electric Machine," doing electro, nickel, silver, gold, and copper plating. The machine is simple, easy to manage, requiring scarcely any attention. It is strong, durable, compact, reliable, powerful, and requires but little force to run it. It is a self-regulator, automatically adjusting the current to the amount of work done. From the great force obtained from a small amount of material, and the simplicity of its construction, the machines are sold at very low prices, $75 and upwards. The conversion of motion into electricity and its use for the electro deposition of the metals, etc., is of great importance, as it not only avoids the use of expensive materials and the deleterious and corrosive fumes produced by batteries, but saves a great deal of time, and the current is more uniform than can be obtained by the use of batteries. B 73. 508

32 King, Wm. H., Philadelphia, Pa.—Soap press. A 66. 508

33 Hagner Drug Milling Co., Philadelphia, Pa.—Double run flaxseed chasing mills. A 64. 508

34 Mosser, W. F., & Co., Allentown, Pa.—Bark mill, with independent grinding segments. A 48 *and Pump annex.* 508

35 Carr Calvin, & Co., Cleveland, O.—Galvanized iron circular cornice machinery. Owners of all circular machine and nearly all the brake and folding machine patents. See circular. B 68. 508

35*a* Averill Chemical Paint Co., New York, N. Y.—Paint, all colors, ready for use. (*Outside of building.*) 508

35*b* Wyman, L. A., Boston, Mass.—Ink and paint mill. A 66. 508

36 Wallace & Sons, Ansonia, Conn.—Magneto-electric machines, for deposition of metals and for electric light, proprietors of brass and copper rolling mills, Ansonia, Conn., office and warehouse 89 Chambers and 71 Reade streets, New York. Manufacturers of brass, rolled and in sheets, copper rivets and burs, brass and copper tubing, brass and copper wire, brass door rail, brass and iron jack chains, stair rods, copper tacks and nails, braziers, bolt and sheathing copper, etc., kerosene burners and trimmings. Price lists, with discount, furnished on application. A 67. 508

36*a* Towsley, L. D., & Co., Philadelphia, Pa.—Gas utilizer for manufacturing illuminating gas. A 65. 509

36*b* Gilbert & Barker Manufacturing Co., Springfield, Mass.—Gas machine. A 77. 509

36*c* Eichholt, John H., Greenpoint, L. I., N. Y.—Gas generator. A 67. 509

36*d* Patton, J. Desha, Norristown, Pa.—Cylinder, governor, etc. C 27. 509

36*e* McIlhenny, George A., Washington, D. C.—Door for gas retorts. C 27. 509

36*f* Hickman, Towsley, & Swan, St. Louis, Mo.—Gas utilizer for manufacturing illuminating gas. A 65. 509

36*g* Thomsen, Alexander, Worcester, Mass.—Governor for gas. C 27. 509

36*h* Day, George H., Haverhill, Mass.—Lime hurdles and screens. C 27. 509

38 Goodwin, Wm. W., & Co., 1016 Filbert street, Philadelphia, Pa.—Gas meters of all descriptions, station meters, standard cubic foot measures and provers, photometers of all kinds, candle scales, pressure registers and gauges, pressure and vacuum registers, apparatus for determination of sulphur and ammonia in coal gas, density and specific gravity apparatus, etc. A 80. 509

38*a* Walker, James H., Milwaukee, Wis.—Model of gas works. C 27. 509

38*b* Towsley, L. D., Cincinnati, O.—Gas utilizer for manufacturing illuminating gas, and for saving one-half the coal-gas of cities. It is automatic, safe, durable, simple, and cheap. A 65. 509

39 Morris, Tasker, & Co., Philadelphia, Pa.—Gas-works machinery. A 70 *and* C 27. 509

40 Harris, Griffin, & Co., Philadelphia, Pa.—Gas meters, registers, gauges, photometers, provers, pumps, exhaust governors. A 78. 509

For location of objects, indicated by letter and figure, see Key to Notation, p. 10; ground plan, p. 11.

Gas Machines, Wood-working Machinery.

41 Mervine, Samuel P., jr., Philadelphia, Pa.—Gas regulator. A 73. 509

41*a* Automatic Gas Governor Co. of the U. S., Philadelphia, Pa.—Automatic gas governor. A 73. 509

41*b* Rand, A. W., Philadelphia, Pa.—Gas machine. A 71. 509

42 Rex & Bockius, Philadelphia, Pa.—Illuminating gas generator. C 69. 509

43 Excelsior Gas Machine Co., South Norwalk, Conn.—Gas machines. A 75. 509

44 Improved Steiner Gas Machine Co., Philadelphia, Pa.—Portable gas machines. A 75. 509

45 Walworth Manufacturing Co., Boston, Mass.—Gas machines for lighting country residences, public buildings, etc. A 76, E 75, *and* B 41. 509

46 Imperial Manufacturing Co., New York, N. Y.—Gas machines. A 73. 509

47 Tiffany, J. C., Boston, Mass.—Oil gas generator, dry gasometer, process for removing naphthaline in gas conduits, platinum appliance for combustion of coal in furnaces. (*Outside of building.*) 509

48 Vasquez, Chas. L., Philadelphia, Pa.—Automatic gas machine. A 73. 509

49 Starr, Jesse W., & Son, Camden, N. J.—Gas works, pipe. (*Outside of building.*) 509

50 Novelty Gas Machine Co., Baltimore, Md.—Carburetting gas machine. A 73 *and outside of building.* 509

51 Gruber, John P., Jersey City, N. J.—Gas works. A 52. 509

52 Bean, Joseph H., Cincinnati, O.—Automatic gas machine for residences, churches, etc. A 72. 509

53 American Meter Co., New York and Philadelphia.—Standard provers, meters, pressure registers, gauges, exhaust governors, bar and jet photometers; also analytical apparatus generally. A 69. 509

54 Burr, William H., Philadelphia, Pa.—Apparatus for making hydro-carbon gas. A 68. 509

55 Excelsior Gas Machine Co., South Norwalk, Conn.—Retort gas machine. A 75 *and outside of building.* 509

56 Daschbach, E. J., Pittsburg, Pa.—Gas machine, with automatic carburetter. A 72. 509

57 Ramsey, Robert H., Pottsville, Pa.—Bituminous coal gas machine, adapted to private residences, stores, and manufactories. Furnishes coal gas of largely increased illuminating power, at less than one dollar per thousand feet. Indorsed by insurance underwriters. A 72. 509

57*a* Rowland, T. F., Greenpoint, N. Y.—Specimens of forgings; model of steam stoker. A 69 *and* D 31. 509

Machines and Tools for Working Metal, Wood, and Stone.

58 Riehlé Bros., Philadelphia, Pa.—Mortising machines. E 54. 510

59 Douglass Manufacturing Co., Seymour, Conn.—Mechanics' edge tools and boring implements. A 43. 510

60 Lane & Bodley, Cincinnati, O.—Stroke power mortisers. A 50 *and saw-mill.* 510

60*a* Gerlach, Peter, & Co., Cleveland, O.—Stave-sawing machine. A 34. 510

60*b* Andrews, E., Williamsport, Pa.—Saw-sharpener, cross-cut saw handles, saws, gang-saw, hooks and stirrups, etc. B 78. 510

60*c* Palmer, Samuel R., Belfast, Me.—Stave-jointing machine. A 28. 510

60*d* Atkins, E. C., & Co., Indianapolis, Ind.—Saws. B 5 *and* A 5. 510

60*e* Knowlton, John L., Sharon Hill, Pa.—Saws, saw-sharpening and planer knife, and grinding machines. A 1 *and* B 1, *and saw-mill.* 510

60*f* Stranges Cylinder Saw & Machine Co., Taunton, Mass.—Cylinder-saw stave machine; foot lathe. B 74. 510

60*g* Curtis & Co., St. Louis, Mo.—Slotted circular saw. B 79. 510

60*h* Ames & Frost, Chicago, Ill.—Dovetailing machine. B 61. 510

61 Norris, W. R., Fort Ann, N. Y.—Diagonal planing and polishing machine. B 60. 510

62 Eureka Manufacturing Co., Boston, Mass.—Lathe, scroll saw, scroll saw attachment. B 36–37. 510

63 Havens, W. H., Paterson, N. J.—Iron circular saw tables. B 56. 510

64 Trump Bros., Wilmington, Del.—Foot-power scroll saws. B 57. 510

65 Burk, Wm. B., & Co., Philadelphia, Pa.—Cork-cutting machines, cork-tapering machine. B 60. 510

65*a* Dowling, T. W., Detroit, Mich.—Scroll saw. B 61. 510

65*b* Barnes, W. F. & John, Rockford, Ill.—Scroll and circular saws; lathes. B 57. 510

65*c* Russell, S. J., Chicago, Ill.—Wood lathes. B 56. 510

65*d* Providence Saw Works, Providence, R. I.—Jig-sawing machines. B 56. 510

66 Buss, Charles, & Sons, Marlboro', N. H.—Rotary bed, paneling, planers, band saw, lathes, slotter, slitter, cutting-up machines. B 49. 510

67 First & Pryibil, New York, N. Y.—Re-slitting band saw, carving machine, saws, planers, etc., for wood working. B 43. 510

68 Disston, Henry, & Sons, Philadelphia, Pa.—Saws and saw tools, trowels, carpenters' tools, files, knives, butt hinges, sheet steel. B 41–46. 510

68*a* Baxter, C. M., Lebanon, N. H.—Band saws; planer. B 64. 510

68*b* Forstner, Benjamin, Salem, Oregon.—Wood auger. D 68. 510

69 Walker Bros., Philadelphia, Pa.—Wood working machinery. B 53.

a No. 0. Scroll sawing machine, even tension spring, adjustable fastenings for saw blades and combined belt shifter and brake.

b No. 1. Scroll sawing machine-spring, has even tension, combined clamp fastening for saw blades; lower guides have parallel adjustment and the dust from saw is

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

blown away from the slides by a fan blower attached.

c Power-feed panel raiser, for panels of any width or raise or thickness; has upright spindles and heads, swing table and, adjustable guards. 510

70 Wallace & Keller, Philadelphia, Pa.—Turning lathe. B 67. 510

71 Crossley, Harry A., Cleveland, O.—Stair jointer. B 67. 510

72 Silver & Deming Manufacturing Co., Salem, O.—Hub boxing machines, adjustable hollow auger, spoke tenoning machines. B 66 *and* F 54. 510

73 Graham, J. S., & Co., Rochester, N. Y.—Planing, tongueing, and grooving machines, circular re-sawing machine, moulding machine, matching heads, and cutters. B 44. 510

74 Moseley, Jerome S., Syracuse, N. Y.—Scroll saw machine, boring machine. In all of the wood-sawing machines on exhibition, the great principles involved in their mechanical construction are the many devices for starting, stopping, and controlling its speed without taking the attention of the operators from their work. The manner of holding the saw, and the manner of giving the saws more or less "rake or feed," have been the difficult problems to solve. Moseley's Patent Eureka Scroll Sawing Machine, with its improved apparatus, can be run at a speed from 800 to 1100 revolutions per minute, and will saw the lightest veneered work, such as piano or melodeon work, and is capable of running saws from one-sixteenth of an inch wide to any width that can be practically used in a scroll saw machine. The blower and self-adjusting blowpipe is a new feature, which adds greatly to the convenience of running and working this machine. It is attached in a simple manner to the upright shaft in which the saws are worked, and serves every purpose of blowing gently away from the work all sawdust that accumulates. The machine is admirably adapted for all kinds of scroll sawing, from the lightest to the heaviest, and does the work well. This machine received the first prize medal at the fair of the New York State Agricultural Society, held at Utica in the fall of 1870; also at Elmira, 1872; also at Albany, 1873, and at Rochester, 1874; also received a medal of special award at the Fair of the American Institute, held at New York city in 1872; and the first prize medal at the International Exhibition, Buffalo, N. Y., 1872. B 63. 510

75 Griffiths, John W., New York, N. Y.—Wood bending machines. B 74 *and* E 5. 510

76 Battle Creek Machinery Co., Battle Creek, Mich.—Carving, paneling, variety moulding, and dovetailing machine; moulders' solid steel cutters. B 55. 510

77 Lane Manufacturing Co., Montpelier, Vt.—Portable single circular saw mill, designed for common use as a portable saw mill, and also intended for use in fixed establishments of ordinary capacity. Sawyer sets the log, uprights both receded, and when desired, advanced, by power; dogging devices especially adapted for "live" or "through-and-through" sawing, and for holding frozen logs. Gauge roll (Fairbank's patent) in front of saw; tapering devices, elevated scale or rule. Over 2000 of these mills (Lane's patent) in use. Heavy double circular saw mill, intended for first-class establishments of the largest capacity; 72 inch lower saw and 40 inch upper saw, feed and jigging back works, operated from either front or back side of frame; saw-guide quickly removable; uprights advanced by both forward and backward motions of lever; setter rides on carriage; rolled-steel headblocks; improved dogs catch under and upper sides of logs, and swing away from saw when released; uprights receded or advanced by power. (*Saw Mill Building*); 24 inch traveling-bed or "Farrar," planing machine; 18 inch stationary bed or roll-feed planing machine; heavy matching, or tongueing and grooving machine; light matching, or tongueing and grooving machine. A 35. 510

78 Marston, J. M., 6 Taber St., Boston, Mass.—Combined hand and foot circular sawing, boring, and mitreing machines. E 77. 510

78*a* Holmes, James, Belfast, Me.—Machine for jointing staves. B 77. 510

78*b* Chesney, R. M., Philadelphia, Pa.—Scroll saw and wood-jointing machine; process shown. A 44–46. 510

78*c* Boynton, Eben B., New York, N.Y.—Saws, frames, sets, files, handles, etc. B 41. 510

79 Chase Turbine Manufacturing Co., Orange, Mass. (*Saw Mill annex.*)

a Machine for sawing staves, spool stock, box boards, etc. 510

b Leverset and circular saw mill. 511

80 Beach, Henry Lloyd, Montrose, Pa.—Scroll-sawing machines. There is no class of machinery on exhibition that attracts greater attention than the scroll sawing machines. Among the number that possess merits as to their mechanism are the two manufactured by Henry L. Beach, of Montrose, Pa. The No. 2, which is mostly of wrought iron, insuring great strength and durability, is especially noticeable; instead of the ordinary tight and loose pulley, the crank shaft carries a friction pulley, by which the saw is made to start and stop instantly without shifting the belt—a great saving of time on inside work. Both the Nos. 1 and 2 are provided with saw clamps, and very powerful and elastic spring, which give an even tension on the saw of from 10 to 75 lbs. No. 1 has a tilting table, which for pattern work is indispensable, and is used almost daily in any shop. Both the machines have air pumps, steel bearing for each saw, and are adjustable in every part to take up all lost tension. A 29. 510

81 Fay, J. A., & Co., Cincinnati, O.—Patent wood-cutting machinery. In the choice of machinery it is an object to select the best adapted to the work to be done. That a machine may be profitable, it must be so constructed as not likely to get out of order. In the display in Machinery Hall, section 8, columns 61, 62, and 63, by J. A. Fay & Co. of Cincinnati, of the several varieties of improved wood-cutting machines they manufacture, and the additions added to them during the past five years, it is claimed that the new features introduced place their machines

in the front rank. The high reputation and character of this firm throughout this country and Europe, may be attributable—1st, to the high character, and excellence of their machines; 2d, to the improvements made upon them from year to year, increasing their labor-saving features; 3d, extensive facilities and abundant capital for manufacturing. Of the different machines for planing, matching, band sawing, boring, variety wood workers, combination edging and ripping-saw tables, carving, band re-sawing, and others for sash, doors, blinds, furniture, wheels, felloes, spokes, and agricultural implements, allusion here can only be made to the more important ones. The No. 2 patent variety wood-worker is peculiar and simple in its mechanical construction, and has capacity for great range and variety of work, being constructed in a substantial manner, and possesses many labor-saving qualities. Their patent band saw with elastic wheels embraces many new and valuable labor-saving features by which the breakage of saws is prevented. Their new carving and paneling machine is designed to meet the demands for an effective machine at low cost, and is adapted for any designs of panels in fine furniture, piano, and organ manufactures. The combination edging and ripping-saw table is built wholly of metal, and is quite novel, having a rising and falling saw, hand and power feed, and with a parallel movement of the gauge or fence for rapid and accurate work. It is also provided with planed iron table, and is in all respects admirably adapted for the purposes designed. The large six-roll double cylinder patent planing and matching machine seems to be perfect in all of its appointments. It is strong and powerful. It embraces many new and valuable improvements designed for the saving of labor, economy of lumber, and increasing the quantity of production. The patent band re-sawing machine embodies several novel features which have attracted much attention from visitors, not only of this country, but of Europe. It is simple, powerful, has a large range and capacity for work. The manner of connecting the two wheel shafts with an outside connection, the automatic friction feed, revolving frictionless guides, the perfect ease of adjustment, and ready manipulations by the operator, with many others which might be added, make it a very interesting exhibit for those interested in the reduction of lumber. B 62. 510

82 Clark Thread Co., Newark, N. J.—Self-acting spool-winding machine, spool-turning machine. C 33, *and* A 34. (*See also exhibit in Main Building*, A 76.) 510

83 Holmes, E. & B., Buffalo, N.Y.—Machines for making kegs, barrels, staves, and shooks. B 50–52. 510

84 Bush & Smith, West New Brighton, N. Y.—Wood-working machinery. B 77. 510

85 S. A. Woods Machine Co., Boston, Mass.—Planing, matching, moulding, surfacing, and other wood-working machinery. B 54. 510

86 Patterson, C. R., Pittston, Pa.—Pressure blocks independent, showing construction and same applied to J. C. Fay's planer. B 61. 510

87 Buckeye Engine Co., Salem, O.—Automatic shingle machine. B 70. 510

88 Richards, London, & Kelley, Philadelphia, Pa.—Wood-cutting machinery. A 44–46 *and Annex 1 and 2.* 510

89 Burt, C. S. & S., Dunleith, Ill.—Machines for sawing shingles, barrel-heads, etc. B 54. 510

90 Blaisdell, J. H., & Co., Philadelphia, Pa.—Wood-working machinery. B 75–76. 510

91 Warren, John, Detroit, Mich.—Paneling machine. B 78. 510

92 Bentel, Margedant, & Co., Hamilton, O.—Universal wood-working machines. Planing and matching, jointing, band and scroll saws, boring and shaping machines. Bentel, Margedant, & Co. have on exhibition twelve different machines, each of them presenting new features, which are improvements, and add greatly to their value and usefulness, and are all first-class in mechanical construction. The patent universal wood-workers for planing out of wind, jointing, squaring, smoothing, beveling, cornering, chamfering, tapering, mitreing, rabbeting, tenoning, halfing, panel-raising, tongueing, grooving, hand-matching, rolling-joints, gaining, plowing, serpentine and waved moulding, fluting, beading, ripping, splitting, cross-cut sawing, straight, circular, oval, and elliptical mouldings, dovetailing, etc. The patent band-sawing machine is, in its construction and improvements, new and highly valuable. This is a patent machine, the improvements on which are entirely new features. The mechanical cause of the breakage of band-saw blades unprecedentedly and successfully removed. The buckling, friction, heating, and crystallization of the saw-blades entirely overcome. Instantaneous starting and stopping of the motion of the saw-blade. The patent scroll saw machine with uniform tension is certain at all points of the stroke. The Hamilton patent surface planer for planing out of wind, jointing, squaring, smoothing, beveling, cornering, chamfering, mitreing, and tapering, is furnished with patent triangular shear-knife cutter-heads. It planes both smoothly and accurately. Sec. B 7, columns 51–52 *and* 53. 510

93 Ross, E. W., & Co., Fulton, N.Y.—Iron framed foot jointer for barrel staves. F 64, *and outside.* 510

94 Seymour & Whittock, Newark, N. J.—Sash dovetailing, mitre, wiring, borer, mortising machines, and sewing machine motors. A 39. 510

95 Smith, H. B., Smithville, N. J.—Iron framed wood-working machinery, with improvements. B 47. 510

96 Baggs, J. T., Bridgeport, O.—Sawing and grooving machine. B 60. 510

97 Rogers, C. B., & Co., Norwich, Conn.—Wood-working machinery. B 75–76. 500

98 Armstrong, Bro., & Co., Pittsburg, Pa.—Cork cutter and tapering machinery. A 5–39. 510

99 Greenlee, Bro., & Co., Chicago, Ill.—Sash, blind, and door clamping machines; sash, door and blind relishing and mortising machine. A 30. 510

100 Skidmore, A. F. & Geo. C., Grand Rapids, Mich.—Barrel hoop machines and coilers. A 49. 510

Wood and Metal-working Machinery.

101 Houston, Smith, & Co., Montgomery, Pa.—Outside bearing moulder, door tenoner, door mortiser. A 31. 510

102 Goodall, Braun, & Waters, Philadelphia, Pa.—Panel planer, planer and matcher, surfacer and matcher, band saw. B 77–78. 510

102*a* Gould, Roscoe J., Newark, N. J.—Dovetailing machine. A 33. 510

103 Mussot, A., Cincinnati, O.—General wood-working machinery. A 29. 510

104 Greenwich Machine Works, Greenwich, N. Y.—Weavers' wood-working machines, driven by hand, foot, or power. A 37. 510

105 Knapp Dovetailing Machine Co., Northampton, Mass.—Machines for cabinet dovetailing. A 35. 510

106 Combined Power Co., New York, N. Y.—Geared machinery for all powers. A 34. 510

107 Colloday, Jos. O., & Bro., Philadelphia, Pa.—Jointing machine, band saw machine, etc. B 56. 510

108 Gleason, John, Philadelphia, Pa.—Spoke and handle turning lathe, etc. B 64. 510

109 Babbitt, F. S., Taunton, Mass.—Combination foot lathe. B 61. 510

110 Howard Manufacturing Co., Belfast, Me.—Mitring machines, easily adjustable in all the different parts, cuts all angles, used by cabinet makers, carpenters, picture frame makers, car builders, etc. A 28. 510

111 Earle, Benj. A., Philadelphia, Pa.—Wool-oiling machine. D 48. 510

112 Whitney, Baxter D., Winchendon, Mass.—Wood-working machines. B 79–80. 510

113 Benson, A. M., Cleveland, O.—Stave machinery dresser and jointer. A 29. 510

114 Goulding, Johnston, & Co., Louisville, Ky.—Hoop and splint machine. B 66. 510

115 Hart, Roswell, Rochester, N. Y.—Machines for making half-round hoops for barrels, etc. B 46. 510

116 Pope Manufacturing Co., Boston, Mass.—Lathe scroll saw. Acme lathe $9.00; scroll saw, $5.00 and $7.00; darning machine, $10.00. C 64. 510

117 Buck, Martin, Lebanon, N. H.—Single, double, and triple tenoning machines, blind mortising and boring machine, slat planer, wedge and pin machine, band saws, etc. B 64. 510

118 Bustin, Robert, St. Johns, N. B.—Fire escape. Bustin's portable fire escape is one of the many new inventions that deserve special notice for its simplicity, cheapness, durability, and almost certain security to life. It is simple in its construction, easily adjusted, and can be carried in a small valise, thus insuring the traveler that, no matter how high in a hotel, he can in a moment rescue his own life, and if he has others in the room in the same perilous situation, save them at the same time. It can be used in many ways, as it is so ingeniously made that it is always ready for use. There is no machinery connected with it. It cannot get out of order. In case the lower part of the building is so enveloped in flames as to render a direct descent impossible, the parties can make a descent across the street. It is now on exhibition at the north end of Machinery Hall, where practical illustrations of its workings can be seen. The fire escapes, all complete, cost from $10.00 to $15.00. In every case you can save your apparatus. 564

119 Lane & Bodley, Cincinnati, O.—Stationary portable circular saw mill. (A 50, *Saw mill.*) 511

120 Eureka Bark Mill Co., Lancaster, Pa.—Bark mills. A 28. 511

121 Harbert & Raymond, Philadelphia, Pa.—Portable saw mill. (*Saw mill.*) 511

122 Ross, E. W., & Co., Fulton, N. Y.—Automatic circular saw mill. F 64 *and outside.* 511

122*a* Scholfield, Socrates, Providence, R. I.—Logging saw. (*Saw mill,* B 12.) 511

122*b* Meiners, C., & Sons, Philadelphia, Pa.—Band, saw mill and head blocks. B 13. 511

122*c* Harvey, Easton, & Co., Lock Haven, Pa.—Gang lathe mill. B 15. 511

122*d* Stearns Manufacturing Co., Erie, Pa.—Circular saw mill, double edging machine, log jacker, log turner, steam engine. (*Saw mill,* A 3, B 3.) 511

122*e* Allis, Edward S., & Co., Milwaukee, Wis.—Saw mill machinery. (*Saw mill,* A 10–11.) 511

123 Flint, C. M., Fitchburg, Mass.—Saw mill. B 13. (*Saw mill.*) 511

124 Noyes, Frank G., Clinton, Iowa.—Gang edger with four circular saws. B 12. (*Saw mill.*) 511

125 Duncannon Iron Co., Philadelphia, Pa.—Nail-cutting machines. B 25. 512

126 Pennsylvania Tack Works, Norristown, Pa.—Tack machines and their products. B 26. 512

127 Garrison, A., & Co., Pittsburg, Pa.—Chilled rolls for rolling metals. Manufacturers of chilled and sand rolls, ore and clay pulverizers, rotary squeezers, Haskin's patent double spiral pinions, and rolling mill castings of every description. B 27. 512

128 Middleton, John W., Philadelphia, Pa.—Cast and wrought iron, and steel ready for the planer. C 77. 512

128*a* Lattimon, D. I., Philadelphia, Pa.—Suction and blast fan. B 64. 512

128*b* Hyslop, John, jr., Abington, Mass.—Machine for making tacks and shoe nails. Hill, Clarke, & Co., selling agents, Boston, Mass. B 35. 512

128*c* Morris, Wheeler, & Co., Philadelphia, Pa.—Nail machine in operation, boiler and ship plates, nails, puddled bars, ores, etc. B 24. 513

129 Flagg, Stanley G., & Co., Philadelphia, Pa.—Malleable gray iron and steel castings. A 41. 513

130 Midvale Steel Works, Philadelphia, Pa.—Bar steel, steel forgings and castings. C 23. 513
(See also classification 573.)

Metal-working Machinery.

131 Dick, C. J. A., Philadelphia, Pa., Phosphor Bronze Smelting Works, 2038 Washington avenue.—Phosphor bronze ingots, axle bearings, castings, bells, wire, sheets, tubes, etc. A 6, 42. 513

132 Eames, Charles J., New York, N. Y.—Petroleum iron boiler plates, forge blooms, billets, jack plates, horseshoes, etc. (*Annex 1.*) 513

132*a* Roberts, E. A. L., Titusville, Pa.—Compound metal. C 78. 513

133 Reed, S. G., Boston, Mass.—Apparatus for heating locomotive and carriage tires with gas; portable gas attachment for lighting streets. E 69. 513

134 Malleable Iron Fittings Co., Brawford, Conn.—Malleable iron steam and gas fittings and castings. A 4. 513

135 Lawrence, Frank, Philadelphia, Pa.—Cupola and trier. (*In building of C. Noble & Co.*) 513

135*a* Phosphor Bronze Smelting Works, C. J. A. Dick, Philadelphia, Pa.—See No. 131. 513

135*b* Harris, Samuel, Springfield, Mass.—Sifting machines. (*Adjoining Annex 2.*) 513

136 Keystone Portable Forge Co., 120 Exchange Place, Philadelphia, Pa.—Portable forges and pressure and exhaust blowers; forges, portable or stationary, for hand or power, forty-seven styles and sizes, for every class of work from lightest to heaviest, and patented and sold in all leading countries. English, French, and Belgian patents for sale. Also blowers for every purpose requiring either pressure or exhaust; all shown in operation. (*Annex No. 1, Machinery Hall.*) 514

137 Carnell, F. L. & D. R., 1844 Germantown avenue, Philadelphia, Pa.—Steam hammers. See illustrated catalogue. (*Annex 1 and 3.*) 514

137*a* Kacy, Robert F., Philadelphia, Pa.—Hand fan-blower. (*Adjoining Annex 2.*) 514

138 Forsaith, S. C., & Co., Manchester, N. H.—Abbe bolt forging machine, spring hammers. E 39 *and annex.* 514

139 Ferris & Miles, Philadelphia, Pa.—Machine tools and steam hammers. B 31 *and* 32. 514

140 Merrill, Chas., & Sons, New York, N. Y.—Drop hammer, parallel vises, differential blocks. C 4 *and Annex 2.* 514

141 Hammond, H., & Co., Hartford, Conn.—Cast steel hammer, anvil, and drop forgings. A 41. 514

142 Metz, George W., & Sons, Philadelphia, Pa.—Bellows. (*Annex 1.*) 514

143 Bayliss, John, New York, N. Y.—Hot blast water tuyere and forge, blacksmiths' bellows, portable forge and bellows. (*Annex 1.*) 514

144 Bradley Manufacturing Co., Syracuse, N. Y.—Cushioned helve hammers. B 29. 514

145 Tubular Barrow & Truck Manufacturing Co., New York, N.Y.—Self-acting steam hammer. (*Annex 1.*) 514

146 Empire Portable Forge Co., Troy, N. Y.—Portable fan-blowing forges. (*Annex 1.*) 514

147 Bullock, T. H., & Co., Cleveland, O.—Blacksmiths', moulders', hand, and coopers' bellows. (*Annex 1.*) 514

148 Hull & Belden Co., Danbury, Conn.—Power forging hammer, samples of drop forgings. C 72. 514

148*a* Mason, John L., Camden, N.J.—Tire shrinker, blacksmiths' tuyere and pinch bar. (*Annex 1.*) 514

148*b* Schierloh, H., Jersey City, N. J.—Heat welding compound, with samples of iron and steel welded. (*Annex 1.*) 514

148*c* Stiles & Barker Press Co., Middletown, Conn.—B 34, *and Annex 1.*
a Drop hammers. 514
b Sheet metal presses. 515

148*d* Pusey, Jones, & Co., Wilmington, Del.—D 33.
a Riveting machine. 514
b Sheet iron cleaner. 515

149 Howard, George C., 13¼ S. Eighteenth street, Philadelphia, Pa.—Grindstone box, hacker, for truing and sharpening the stone, drill-press, boring and sapping machine. B 31. 515

150 Cooper, John H., Philadelphia, Pa.—Model of mechanical movement. C 31. 515

151 Mitchell, J. E., Philadelphia, Pa. Founded, 1810.—Column of 38 varieties of grindstones; two thousand tons in stock; seven sizes of machinists' grindstones in iron boxes. Send for descriptive pamphlet. B 28 *and* 29. 515

152 Sternbergh, J. H., Reading, Pa.—Surface-grinding machine, bolts, nuts, washers, rivets, wood screws, etc. B 37. 515

153 American Twist Drill Co., Woonsocket, R. I.—Automatic knife-grinders, emery wheels, and machinery. C 32. 515

154 Cooper, Jones, & Cadbury, Philadelphia, Pa.—Lathes. B 19. 515

155 Wattis, Edward, jr., Philadelphia, Pa.—Patent pocket flasks, with metallic collars secured without cement. B 34. 515

155*a* Laurence, Benjamin, Lowell, Mass.—Index and plain milling machine. B 29. 515

155*b* Sawyer, J. A., & Son, Worcester, Mass.—Combined hand and power iron planer, Hill, Clarke, & Co., selling agents, Boston, Mass. C 40. 515

155*c* Galligher, Bernard, Lynn, Mass.—Emery grinder; drills. C 39–40. 515

155*d* Weed & Co., Boston, Mass.—File cutting machine. G 30. 515

156 Stevens, W. X., East Brookfield, Mass.—Centre cutting shears for iron, to cut old steamboat shafts, rails, chain links, bolts, angle and merchant iron, cold; power unlimited. B 34. 515

157 Ferris & Miles, Philadelphia, Pa.—Planing, shaping, slotting, drilling, cut-off, turning, boring, punching, and shearing machines. B 31–32 *and Annex 1.* 515

158 Brown & Sharpe Manufacturing Co., Providence, R. I.—Machinery and tools. Manufacturers of universal and plain milling machines, grinding, screw, and tapping machines, screw finishing and

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

Metal-working Machinery.

polishing machines, reels, assorters, scales, and testers for roving and yarn, for cotton and woolen manufacturers' use, patent cutters for gear wheels, and for taps, beamers, twist drills, irregularly formed sewing machine and gun parts, milling and screw slotting cutters. B 38. 515

159 Lobdell Car Wheel Co., Wilmington, Del.—Solid die rivet machine. E 65. 515

159*a* Richards, I. P., Providence, R. I. —Punches for metal. A 42. 515

159*b* Hendey Machine Co., Walcottville, Conn.—Planer and shaper. D 35. 515

159*c* Howard, William H., Philadelphia, Pa.—Loom frame with automatic let-offs. B 31. 515

159*d* Cosmopolitan Emery Wheel Co., Philadelphia, Pa.—Emery wheels for grinding saws, tools, etc. (*Annex* 1.) 515

160 American Saw Co., Trenton, N. J. —B 33.
- *a* Movable tooth circular, perforated, and solid saws. 510
- *b* Eccentric-geared power punching and shearing machines. 515

161 Cornell University Machine Shop, Ithaca, N. Y.—Foot lathe, magneto-electrical machine, measuring machine, tools, and gauges. B 68. 515

162 Chase Manufacturing Co., New York, N. Y.—Portable pipe and bolt cutting and threading machine. B 28. 515

163 Smith, Oberlin, & Bro., Bridgeton, N. J.—Upright or inclined foot and power presses, for cutting or drawing tinware, and can makers' tools, pipe tools, special drills, etc. C 27. 515

164 Lovegrove & Co., Philadelphia, Pa. —Pipe threading and cutting machine. B 75 *and Boiler House* 4. 515

165 Thorne, De Haven, & Co., Philadelphia, Pa.—Drilling machines. B 30. 515

166 George & Du Laney, New York, N. Y.—Screw machinery. C 55 *and* B 29. 515

166*a* Clough & Williamson, Newark, N. J.—Wire corkscrews and handles; machine for manufacturing same. B 38. 515

166*b* Edwards, E. B., Columbia, Pa.—Axle rolls. B 40. 515

166*c* Cushing, N. B., Jersey City, N. J. —Shears, and punching machines. B 26. 515

167 Merriman, A. H., West Meriden, Conn.—Power punching press. B 29. 515

168 Jones, Lamson, & Co., Windsor, Vt. —Engine lathes, screw machines, gang drills, etc. B 36. 515

170 Sellers, William, & Co., Philadelphia, Pa.—C 18 *to* 25 *and Annex* 1.
- *a* Steam hammers. 514
- *b* Machine tools, punching and shearing machines. 515

171 Washburn Machine Shop, Worcester Free Institute, Department Mechanical Engineering, Worcester, Mass.—Lathes with hardened steel bearings; grinding machines and drawing stands. C 38. 515

172 Spiral Elliptic Spring Works, Cincinnati, O.—Machinery for making upholstering springs. E 70. 515

173 Worcester, E. J., & Co., Worcester, Mass.—Vertical drills for metals, blacksmith's lathe. C 32. 515

174 Schon, Mathias, Englishtown, N. J.—Tire upsetting machine. (*Annex.*) 515

175 Nichols, Pickering, & Co., Philadelphia, Pa.—Portable rail punches. D 67. 515

176 Prentice & Co., Worcester, Mass. —Lathes, slide rests, drills. C 31. 515

177 Van Hagen, C., & Co., Philadelphia, Pa.—Rotary shapers, iron planers, drill sharpeners, drills, and boring tools. C 30. 515

177*a* Vitrified Wheel and Emery Co., Ashland, Mass.—Emery and emery wheels. (*Annex.*) 515

177*b* Long, Allstater, & Co., Hamilton, O.—Punching and shearing machines. B 36. 515

177*c* Broadbooks & Co., Batavia, N.Y. —Folding chairs. C 43. 515

177*d* Howard Iron Works, Buffalo, N.Y.—Propeller wheel. C 29–30. 515

177*e* Dudgeon, Richard, New York, N.Y.—Punches. C 27. 515

177*f* Temple, Edward B., Philadelphia, Pa.—Planing machine for metals, etc. B 28. 515

177*g* Old Colony Rivet Works, New York, N.Y.—Iron planers, shears, cutters, punches, drilling machines, rivets, etc. B 28. 515

177*h* Clark, John A., Newark, N. J.—Drip pan for kerosene and other liquids. C 30. 515

178 Miller's Falls Co., Miller's Falls, Mass.—A 40.
- *a* Scroll saw. 510
- *b* Iron cutter, drilling machines. 515
- *c* Vises. 519

179 Putnam Machine Co., Fitchburg, Mass.—Machinists' tools, steam engines, Woodworth planers, water wheels, shafting, mill work, etc. C 28. 515

180 Kreider, Campbell, & Co., Philadelphia, Pa.—E 50.
- *a* Engine lathe. 515
- *b* Glassware grinding machine. 516

181 American Watch Tool Co., Waltham, Mass.—Lathes for watchmakers' use, and bench lathes for machinists. F 38–40. 515

182 Coe, C. W., Fenton, Mich.—Hand power drill press and screw cutter. B 29. 515

182*a* Young, William, Easton, Pa.—Young's patent water and gas main tapping machine. With this apparatus the main pipe is drilled and tapped, the service pipe screwed in, and connection made in one operation, without shutting off the water or changing tools. (*Pump annex 7–5.*) 514

183 E. Horton & Son Co., Windsor Locks, Conn.—Lathe and car-wheel chucks. B 30. 515

Metal and Stone-working Machinery.

184 Oneida Steam-Engine & Foundry Co., Oneida, N. Y.—Westcott's combination lathe chucks, works universally and independently, holds objects twenty-five per cent. larger than diameter of chuck, jaws all reversible. Little Giant drill chucks holds from o to one inch. B 30. 515

185 Whiton, David E., West Stafford, Conn.—Gear-cutting machines, machines for centering iron, lathe chucks, drill chucks, etc. C 31. 515

186 Wicaco Screw & Machine Works, Philadelphia, Pa.—Special machine screws, studs, rolls, punches, dies, drills, taps, reamers, mills, etc. B 37. 515

187 Bliss & Williams, Brooklyn, N. Y.—Presses for making tinware and articles of sheet metals. C 30. 515

188 Chase, Pliny E., Newark, N. J.—Back-geared, screw-cutting, conical-bearing foot lathes, slide rests, and fittings. B 36. 515

189 Northampton Emery Wheel Co., Leeds, Mass.—Solid emery wheels, and machinery for showing uses. B 37, *and Annex 1.* 515

190 Prouty, A. B., Worcester, Mass.—Chucks and jaws for iron planers. D 59. 515

191 Racine Hardware Manufacturing Co., Racine, Wis.—Jewelers' and dentists' polishing and turning lathes, power wheels, engraving blocks, and other tools. C 41. 515

192 Newbold, Richard S., & Son, Norristown, Pa.—Rotary shear for sheet and plate iron. B 33. 515

193 Watson, James, Philadelphia, Pa.—Non-changeable gap lathe. C 31. 515

194 Mitchell, J. H., Philadelphia, Pa.—Grindstone boxes. B 80. 515

195 Wharton, Wm., jr., Philadelphia, Pa.—Rail-bending machine. D 72. 515

196 Pratt & Whitney, Hartford, Conn.—Machinists' tools; gun and sewing machine machinery; drop forging, threading bolts, nuts, and pipe. C 23–26, *and Annex 1.* 515

197 Kennedy, De Lancy, New York, N. Y.—Shearing, punching, griping, and pressing tools and machinery; spiral punch and die. B 37. 515

198 Cummings, Geo. L., New York, N. Y.—Grindstone frames. B 34. 515

199 Flather & Co., Nashua, N. H.—Engine lathes, 17 and 14 inch swing, with hollow steel spindles, steel screws and shafts, wrought iron racks and case hardened nuts and handles. Self-reversing tapping machine, used in principal gun and sewing machine factories. Prices low. Hill, Clarke & Co., selling agents, 131 Milk street, Boston, Mass. C 38–40. 515

200 Doriot, Constant, 337 S. Seventh street, Philadelphia, Pa.—Foot lathe, with slide rest; fine tool maker, and fine work of precision of all kinds. C 34. 515

201 Celluloid Emery Wheel Co., Newark, N. J.—Grinding and polishing wheels, made of emery or corundum, cemented into a mass with the new and remarkable material, celluloid. These wheels are all that can be required, as to strength and cutting qualities; they are perfectly even and homogeneous, and will not glaze under any circumstances. They may be used either wet or dry, as they never soften in water, oil, or any other lubricant. (*Annex 1.*) 515

202 Teal, C. A. & W. L., Philadelphia, Pa.—Boiler rolls, punching and shearing machines, hair-picking machine. C 25. 515

203 Scofield, Charles, Vineland, N. J.—Machine for straightening shafting in position. C 34. 515

204 Cox & Sons, Bridgeton, N. J.—Steam and gas-fitters' tools, supplies, etc. C 32. 515

205 Hamlin, G. A., Philadelphia, Pa.—Machinery for refitting valves. C 35. 515

206 Merritt, Daniel S., Bay City, Mich.—Machine for cutting heavy iron bars and plates; punch for all kinds of metal. B 36. 515

207 Fitchburg Machine Co., Fitchburg, Mass.—Engine lathes, drills, planer, and shaping machine. C 38. 515

208 Ames Manufacturing Co., Chicopee, Mass.—Engine lathes, planer, drills, edging machine, die-sinking machine. C 38 *to* 40. 515

208*a* Putnam & Estey, Fitchburg, Mass.—Emery wheels. (*Annex 1, 32.*) 515

208*b* Howard Iron Works, Buffalo, N. Y.—Automatic revolving die-bolt cutter and nut-tapping machines. C 29. 515

208*c* Reynolds, D. M., Port Deposit, Md.—Machine for cleaning and polishing sheet iron. C 36. 515

208*d* Cleveland Patent Manufacturing Co., Cleveland, O.—Bolt and pipe cutters; cutter heads. B 29. 515

209 Gray, J. Hammond, Philadelphia, Pa.—Screw machinery, for turning and threading screws, etc. B 27. 515

210 Hilles & Jones, Wilmington, Del.—Radial drills and slotting machine. B 37. 515

211 Hardy Machine Co., Biddeford, Me.—Hardy's improved traverse emery wheel card-grinders, for truing and grinding perfectly the teeth of cotton and wool cards. We warrant the "Hardy" card grinder, cloth-shear grinder, and planer knife grinder. B 35. 515

212 Stacy Stone Dressing Machine Co., New York, N. Y.—Stone-dressing machine. (*Annex 3.*) 516

213 Rogers, William A., Cambridge, Mass.—Automatic machine for grinding parallel surfaces on glass, etc. C 42. 516

214 Branch, Crookes, & Co., St. Louis, Mo.—Diamond circular saws and machinery for sawing stone. (*Saw mill.*) 516

215 Steam Stone Cutter Co., Rutland, Vt.—Stone channeling or quarrying machines; block of machine-cut marble. (*Annex 2.*) 516

216 Emerson Stone Saw Co., Pittsburg, Pa.—Diamond circular stone saw and machine. This machine, doing regular work, cuts in ordinary sandstone one hundred and fifty square feet per hour (counting both sides of the cut), and other stone in proportion, according to the

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

relative hardness, leaving the stone perfectly in line, beautifully finished, ready to be placed into buildings, etc. This is more than can be accomplished by one hundred men in the same space of time, and at an expense not exceeding the cost of sharpening and wear of tools necessary to do the same amount of work. The highest honor (a gold medal) was awarded to this saw at the Cincinnati Exposition of 1874 and at the Pittsburg Industrial Exposition of 1875. (*Annex 2.*) 516

217 Batley, John, & Co., Philadelphia, Pa.—Shaping machine, for moulding, paneling, or carving on marble, etc. (*Annex 2.*) 516

218 Davis & Richmond, Detroit, Mich.—Hand machine for cutting and punching slate. (*Annex 2.*) 516

219 Ryan, James M., Cincinnati, O.—Silver-plated lathe, show cases, and process of cutting glass. D 38. 516

220 Ross, Thos., Rutland, Vt.—Stone-sawing machine. (*Annex 2.*) 516

221 Young, Hugh, New York, N. Y.—Reciprocating diamond stone-sawing machines. (*Saw mill.*) 516

222 Union Stone Co., Boston, Mass.—Solid emery wheels and machinery for grinding and polishing. Emery wheels, from one inch to six feet in diameter, and grinders for mounting them. Special machines for jointing plows, beveling boiler plates, gumming saws, etc. Patent automatic knife grinder, a decided success, for grinding planing machines, bookbinders', curriers', and long knives and shears of all kinds. Grinders' and polishers' supplies. B 37, *and Annex 1.* 515

223 Carnell, F. L. & D. R., 1844 Germantown avenue, Philadelphia, Pa.—Fire and red brick presses; working model of "Peerless" brick machine. The above firm manufacture brick machinery of every description, of which they have a fine illustrated catalogue, which will be mailed to any person sending them their address. (*Annex 1 and 3.*) 517

223*a* Aiken, Henry, Philadelphia, Pa.—Hydrostatic machine; stone-separating and clay-tempering machine. (*Annex 3.*) 517

223*b* Farr, George, New York, N. Y.—Working model of brick machine. (*Annex 3.*) 517

223*c* Maas, Albert W. M., Meridian, Miss.—Model and drawing of perpetual burning brick-kiln. (*Annex 3.*) 517

223*d* Whiteford, John, Detroit, Mich.—Brick moulding, off-bearing, and yard-leveling machine. (*Outside of building.*) 517

223*e* Miller, Samuel P., & Son, Philapelphia, Pa.—Hand brick pressing machines. (*Annex 3.*) 517

223*f* Wyatt, Charles B., Somerville, Mass.—Grate, bevel knife, and spring pressure for brickmakers' use. (*Annex 3.*) 517

224 Newkumet, Adam, Philadelphia, Pa.—Crucible and pottery ware machines, drying apparatus for glass-house pots, retorts, etc. (*Annex 3.*) 517

225 Miller, Samuel P., & Son, Philadelphia, Pa.—Hand brick press, model of clay-tempering machine, brickmakers' tools. (*Annex 3.*) 517

226 Carnell, Geo., Philadelphia, Pa.—Brick press and pug mill. (*Annex 3.*) 517

227 Morand, Augustus, Philadelphia, Pa.—Brick-making machine. (*Annex 3.*) 517

228 Garretson, I. H., Keokuk, Iowa.—Brick-moulding machine, ring fence. (*Annex 3.*) 517

229 Excelsior Brick & Stone Co., Philadelphia, Pa.—Model of brick machine, samples of brick and stone. (*Annex 3.*) 517

230 McLean & Bennor Brick Machine Co., Philadelphia, Pa.—Impact brick machine, making brick with a blow. (*Annex 3 and* C 59.) 517

231 Chambers, Bro., & Co., Philadelphia, Pa.—Archimedian brick machine. D 23. 517

232 Hotchkiss, James, Springfield, O.—Brick machine. (*Outside of building.*) 517

233 Gregg, Isaac, jr., & Co., Philadelphia, Pa.—Steam brick machine, one-faced front brick. (*Annex 3.*) 517

234 Hazlehurst, Samuel, St. Louis, Mo.—Hand brick-moulds. (*Annex 3.*) 517

235 Hoyt, Andrew J., Philadelphia, Pa.—Brick machine; steam hammer. (*Annex 3.*) 517

236 Gregg, Wm. L., Philadelphia, Pa.—Triple pressure brick machine for making and also re-pressing all kinds of brick; ceramic gas-kiln, for drying and burning red brick, fire brick, terra-cotta, china, lime, pottery, and drain pipe. (*Annex 3.*) 517

237 Great American Brick Machine Co., Croton, N. Y.—Brick machine and trucks. (*Annex 3.*) 517

238 Gregg Impact Brick Machine Co., Philadelphia, Pa.—Model of brick machine. (*Annex 3.*) 517

238*a* Stacy, George, New York, N. Y.—Fastening for stonecutters' use, etc. (*Annex 3.*) 517

239 Williams, S., & Son, Philadelphia, Pa.—Brickmakers' implements. (*Annex 3.*) 517

240 Stockwell, J. W., Portland, Me.—Cement pipe machinery, concrete mixing, sewer pipe tamper, moulds for drain pipe, samples of work. A. 55. 517

241 Martin, Henry, Lancaster, Pa.—Self-acting brick machine. (*Annex 3.*) 517

242 Lafler, J. A., Albion, N. Y.—Brick-making machine in operation, brick mould, bricks, and model of brick machine. (*Annex 3.*) 517

243 Hamilton, S. M., Baltimore, Md.—Perpetual brick kiln. (*Annex 3.*) 517

244 Mathieu, Charles, Colosse, N. Y.—Glass steam-engine, glass-blowing, knitting, spinning, and forming fancy glass ornaments. E 74. 517

245 Burgess, Warren S., Norristown, Pa.—Blowpipe, animal-clipping machine. E 75. 518

246 Holzer, William, Philadelphia, Pa.—Process of manufacture of druggists', chemists', perfumers', philosophical, and fancy glassware. B 32. 518

Glass and Metal-Working Machinery and Tools.

247 Brooke, Homer, New York, N. Y. —Glass manufacturers' moulds and presses, for making bottles, jars, lamps, lantern globes, and for all kinds of pressed and blown glass; also private moulds for patent medicine bottles. E 75. 518

248 Chase, B. F., E. Stroudsburg, Pa. —Glass-blowing machines. E 74. 518

249 Steele Bros., 209 South Eleventh street, below Walnut, Philadelphia, Pa.—Glass engraver at work. Decorated china and engraved glass. Dinner, dessert, and tea sets decorated, to order, in any color or design. Monograms, crests, initials engraved on glass. E 75. 518

249*a* Bevington & Winters, Philadelphia, Pa.—Glass furnace; china furnace; printing press and mineral cases, belonging to the art of porcelain printing. (*Annex 1.*) 519

250 McCaffrey & Bro., Philadelphia, Pa.—Hand-cut files and rasps. A 41. 519

251 Krumbhaar, Alexander, Philadelphia, Pa.—Hand-cut files and rasps. A 43. 519

252 Barnett, G. & H., Philadelphia, Pa. —Files and rasps. A 39–40. 519

253 Flagg, Stanley G., & Co., Philadelphia, Pa.—Carriage hardware. A 41. 519

253*a* Knight, Edward H., Philadelphia, Pa.—Monkey wrench. A 41. 519

253*b* Coe, A. G., & Co., Worcester, Mass.—Screw wrenches. B 41. 519

254 Hoopes & Townsend, Philadelphia, Pa.—Bolts, cold-punched nuts, washers, chain links, wood screws, rivets. C 32. 519

255 Stephens Patent Vise Co., New York, N. Y.—Parallel vise, with swivel, taper, table, woodworkers, and pipe attachment. B 6. 519

256 Billings & Spencer Co., Hartford, Conn.—Drop forgings for guns, pistols, sewing machines, and machinery generally; screw plates and dies, Packer ratchet drills, Barwick pipe wrenches, clamp, die, and common lathe dogs, marlinspikes, and calker's tools. B 40. 519

257 Brainard Milling Machine Co., Bos- ton, Mass.—Standard, universal, index, and plain milling machines, for working metals in all shapes, cutting key seats, spur and bevel gears, twist drills, fluting taps and reamers, and making tools of all kinds. Are universally used in American establishments. C 38–40.

a Grinding machines for sharpening the milling cutters, without drawing the temper. 515

b Set screw machine, new design. 515

c Steel bar vises, combining strength with lightness and convenience. 519

258 Bedell, Otis T., New York, N. Y.— Screw wrench. B 40. 519

259 Monk, Chas., Brooklyn, N. Y.— Iron moulders' steel-finishing tools. B 40. 519

260 Silver & Deming Manufacturing Co., Salem, O.—Blacksmiths' post and table drills. F 54. 519

261 Morse Twist Drill and Machine Co., New Bedford, Mass.—Patent increase twist drills, beach chucks, machine relieved taps, screw plates, tap wrenches, adjustable dies, solid and split dies, pipe, solid, and shell reamers, adjustable and centre drill chucks, milling cutters, drill grinding machines, special tools. All tools to standard gauges. B 40. 519

262 Plumb, Burdict, & Barnard, Buf- falo, N. Y.—Bolt-forging machines, with forge. (*Annex.*) 519

263 Clark Bros. & Co., Milldale, Conn.—Bolts, rivets, nuts, washers, etc. B 41. 519

264 Parker, Chas., Meriden, Conn.— Vises. B 41. 519

265 Fisher & Norris, Trenton, N. J.— Parallel double screw vises, hardened cast steel faced steam and drop hammer dies, steel faced ore stamp shoes, and all articles requiring hardened cast steel welded to cast iron. Warranted. B 41, *and Annex.* 519

266 Western File Co. (limited), Beaver Falls, Pa.—Machine-cut files. A 41. 519

267 Haase, John A., Philadelphia, Pa. —Floor and door clamps, ratchet drills. B 41. 519

268 Simonds Manufacturing Co., Fitchburg, Mass.—Knives and sickles for mowers and reapers, planing machine knives, circular saws. B 41. 519

268*a* Flanagin, W. J., & Co., Philadel- phia, Pa.—Wrenches. B 41. 519

268*b* Bailey Wringing Machine Co., New York, N. Y.—Adjustable parallel vises. A 42. 519

268*c* Barnett, Oscar, Newark, N. J.— Malleable and gray iron castings, brass founders' flasks, etc. A 39. 519

268*d* Russell, Wm. C., New York, N. Y.—Adjustable wrench. D 73. 519

268*e* Cleveland Screw & Tape Co., Elyria, O.—Milled set and cap screws, taps and nuts. B 43. 519

269 Rutschmann Bros., Philadel- phia, Pa.—Self-feeding hand drill. B 29. 519

270 Mudge Hook, Tooth, File, & Rasp Co., Brooklyn, N. Y.—Machine files and rasps. A 40. 519

271 Russell, Burdsall, & Ward, Port Chester, N. Y.—Bolts for manufacturers' use. A 40. 519

272 Clark Bros., Philadelphia, Pa.— Eccentric or cam rivet pipe tongs. B 40. 519

273 Pool, A. Alex., & Co., Newark, N. J. —Steel arbors for machinists and jewelers. B 40. 519

274 Wood, Geo. W., Philadelphia, Pa. —Self-adjusting flooring clamp and lifting jack. A 41. 519

275 Orum, Morris L., Philadelphia, Pa. —Flexible mandrels for bending metal pipe. B 40. 519

276 Eaton, Cole, & Burnham Co., 58 John street, New York, N. Y.—Brass and iron goods for steam, water, and gas; cast iron radiators, tools, etc. B 41. 519

277 Shaw, Thomas, Philadelphia, Pa. —Lathe tools. D 69. 519

278 Nicholson File Co., Providence, R. I.—Files, finished, ground, and forged; file steel. C 34. 519

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

Metal-Working Tools, Silk and Cotton-Working Machinery.

279 American File Co., Pawtucket, R. I.—Files, file-testing machine. C 34. 519

280 Hey, Henry T., Philadelphia, Pa. —Measuring gauge. A 41. 519

281 Spiral Tubing Co., Boston, Mass. —Machine for making spiral seam pipe. B 34. 519

282 Hewitt & Follensbee, Washington, D. C.—Machines for filing and setting saws. A 29. 515

283 Wilkinson, A. J., & Co., Boston, Mass.—Foot-power lathe, bench lathes, small-power planer, hand-planer. C 38–40. 519

284 Wyman, J. Dana, Boston, Mass.—Self-heating soldering iron. B 49. 519

285 Backus, Q. S., Winchendon, Mass. —Bit braces, ratchet braces, tack hammers, etc. A 40. 519

286 Johnson, Wm., Lambertville, N. J. —Universal lathe chuck. C 77. 519

Machines and Implements of Spinning, Weaving, Felting, and Paper Making.

287 Cutter, John D., & Co., New York, N. Y.—Jacquard silk loom in operation; mechanism for measuring silk while spooling it. D 31. 520

288 Knowles & Bro., Worcester, Mass. —D 51.
a Looms for silk dress goods, ribbons, webbings, etc. 520
b Looms for plain and fancy woolen goods. 522

290 Wrigley, John, Paterson, N. J.—Jacquard loom, changeable for power or hand. D 31. 520

291 Danforth Locomotive & Machine Co., Paterson, N. J.—Silk machinery. D 29. 520

292 Nonotuck Silk Co., Florence, Mass. —Machinery for throwing and finishing organzine, sewing silk, twist, and embroidery; machine for printing spools. D 41. 520

293 Holland Manufacturing Co., Willimantic, Conn.—Machines for winding, measuring, and testing the strength of sewing-silk and other threads. D 34. 520

294 Lawson, Peter, Lowell, Mass.—Drawing or roving can. B 58. 521

294*a* Sullivan Machine Co., Claremont, N. H.—Papier-maché roving cans. D 46. 521

294*b* Davis, Caleb S., Philadelphia, Pa. —Cotton goods finisher. D 46. 521

295 Avery, John G., Worcester, Mass. —Thread, twine, and cord machinery. D 54. 521

298 Butterworth, H. W., & Sons, Philadelphia, Pa.—Drying machines for muslins, prints, tickings, etc.; dyeing and sizing machines, calenders and finishing machinery of all kinds. Tinned sheet iron cotton cans, etc. D 44 *to* 48. 521

299 Willimantic Linen Co., Hartford, Conn.—Spool cotton thread-winding and ticketing machines; ring spinning frame. C 52, 53. 521

300 Clark Thread Co., Newark, N. J.—Self-acting spool-winding machine; show case. C 33 *and* A 34. 521

301 Dutcher Temple Co., Hopedale, Mass.—Dutcher's patent self-acting power loom temples. May be seen in operation upon the looms of Geo. Crompton, Esq., Messrs. J. & W. Lyall, and Messrs. L. J. Knowles & Bro., at the Centennial. C 37. 521

302 Kitson Machine Co., Lowell Mass.
a Cotton openers and lappers. 521
b Shoddy pickers and rag dusters. 521
c Leather needle-pointed card clothing, for carding hemp, flax, jute, and tow. C 4, 33 *and* 34. 527

303 Prouty, A. B., Worcester, Mass.—Card-setting machine. D 59. 521

305 Gibbs Loom Harness & Reed Co., Clinton, Mass.—Loom harness and reeds used for weaving. C 50. 521

305*a* Fales, Jenks, & Son, Pawtucket, R. I.—Combined fly frame and speeder; ring spinner frame. D 34–35. 521

305*b* Saco Water Power Machine Shop, Biddeford, Me.—Cotton machinery. C 35–37. 531

305*c* Long, Jas., Bro., & Co., Philadelphia, Pa.—Power looms. C 57. 521

305*d* Patent Forged Steel Spring Ring Co., Worcester, Mass.—Steel spring rings. C 34. 521

305*e* Wolfenden, Shore, & Co., Philadelphia, Pa.—Power loom. D 45. 521

305*f* Hertle & Thompson, New York, N. Y.—Wire heddles, for weaving woolens, cottons, etc. C 54. 521

306 Rockville Traverse Card Grinding Co., Rockville, Conn.—Traverse grinder for woolen and cotton cards and shears. C 50. 521

307 Poole, J. Morton, & Co., Wilmington, Del.—C 60.
a Glazing cylinder for finishing cotton goods. 521
b Chilled roll calenders, for paper-makers' use, ground chilled roll. 525

308 Hope & Co., Providence, R. I.—Pantograph engraving machine for calico-printers' plates. C 41. 521

309 Ingersoll & Balston, Greenpoint, N. Y.—Hand-power hay and cotton press. C 55. 521

310 Butler, Brown, & Co., Providence, R. I.—Ring travelers and belt hooks. C 34. 521

311 Ross, L. E., Providence, R. I.—Spring shuttle motion for looms, independent of speed; loom with motion attached. C 36. 521

312 Palmer European Patent Tentering & Finishing Machine Co., Norwich, Conn.—Machinery for stretching, tentering, and drying woven fabrics, laces, etc. C 56. 521

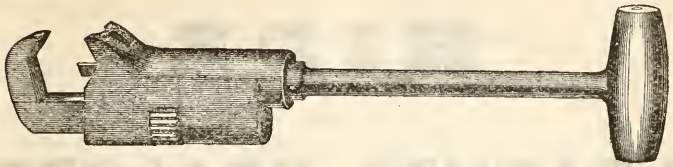
313 Providence Machine Co., Providence, R. I.—Roving machinery, card and spinning frame, built by Samuel Slater in 1790. D 36. 521

314 Hill, James, Providence, R. I.—Tin filling box, tin cotton can. D 35. 521

315 Wood, Thomas, 2106 Wood street, Philadelphia, Pa.—"Star loom" single box, five leaf; three box loom, 12 harness; four box loom-sliding cams; bobbin-winding machine; new style beaming machine; power hoisting machine; patent friction pulley; shafting, couplings, and pulleys; adjustable self-oiling hangers; self-oiling pillow blocks. C 54. 521

For location of objects, indicated by letter and figure, see Key to Notation, p. 10; ground plan, p. 11.

The Acme Patent Pipe Cutter.



MANUFACTURED ENTIRELY OF SOLID CAST STEEL.

Is adapted to widely varying classes of work, and will be found to operate equally well on

Wrought Iron Gas and Steam Pipes, Boiler Tubes, Oil-Well Tubes, Round Iron, Bolts, Shafting, Brass and Copper Pipes, etc.

It is as claimed an actual cutter, and does not depend on force of pressure to indent the pipe until it can be broken off; but cuts out a regular chip precisely similar to the action of a lathe tool, leaving the end of pipe perfectly square and true, entirely devoid of any burring inside or outside, and ready for the die without being touched with a file.

The knives are of such simple construction that any blacksmith can replace them. This will often be found an advantage by mechanics working at a distance from their shops.

The knife may be ground on any ordinary grindstone, and so be kept constantly in good order.

For Descriptive Price Lists, address

PANCOAST & MAULE,

PHILADELPHIA, PA., U. S. A.

Prichett, Baugh & Co.,

HIDE

AND

LEATHER DEALERS,

NO. 127 AND 129 SOUTH SECOND

AND

133 GOTHIC STREETS,

PHILADELPHIA.

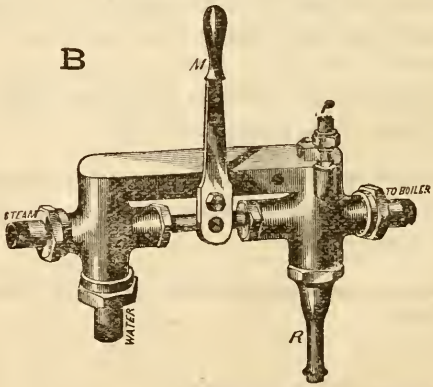
SAMUEL BAUGH. LOUIS D. BAUGH.
WM. C. PRICHETT. JAMES C. PRICHETT.

RUE'S LITTLE GIANT INJECTOR,

THE GREAT BOILER FEEDER.

BEST IN THE WORLD.

ON WEIGAND BOILER,
Boiler House, No. 4,



Section 4, Column 13,
Pump Annex.

IN USE ON 120 RAILROADS---SEND FOR CIRCULAR.

RUE MANUFACTURING CO.,

523 CHERRY STREET,

PHILADELPHIA.

Cotton, Woolen, Paper-working Machinery.

315*a* Smith, J. A. V., Manchester, N. H. —Steel spreader flies. C 66. 521

315*b* Wolfendon, Shore & Co., Cardington, Pa.—Narrow loom. D 45. 521

316 Eaton & Ayer, Nashua, N. H.—Bobbins, spools, shuttles, skeivers, etc., for spinning and weaving textiles. C 60. 521

317 Leonard & Silliman, Bridgeport, Conn.—Mill spindle with driver, step and points. E 56. 521

318 Jenckes, E., & Co., Pawtucket, R. I.—Ring travelers, cotton binding belt holes, spinning rings, cotton and woolen mill supplies. C 35. 521

319 Foss & Pevey, Lowell, Mass.—Under-flat cotton card. C 38. 521

320 Cleveland Machine Works, Worcester, Mass.—Double-acting gig. D 47. 521

320*a* Corner & Cooper, Lowell, Mass.—Cotton stamps for cotton and woolen mills. D 50. 521

321 Howard, George C., 13¼ South Eighteenth street, Philadelphia, Pa.—Folding, rolling, and measuring, strength-testing, shearing, and brushing machines, for carpets or cloths. B 31. 522

322 Avery, John G., Worcester, Mass. —Continuous wool spinner. D 53. 522

323 Lyall, J. & W., New York, N. Y.—Positive motion looms, weaving various fabrics. C 46 *and* 49. 522

324 Smith, James, & Co., 137 Market street, Philadelphia, Pa.—Machinery for manufacturing fabrics; manufacturers' supplies. Manufacturers of card clothing, oak leather belting, Garnett machines, wool washers, barring machinery, etc.; also, dealers in manufacturers' supplies. Factory, corner of Race and Crown streets. D 62. 522

325 Furbush, M. A., & Son, Philadelphia, Pa.—Carding machines, self-acting spinning mule. D 52. 522

326 New England Co., Rockville, Conn. —Spooler, warp dresser, reel, beamer. D 46. 522

327 Thames River Worsted Co., Norwich, Conn.—Spinning frame with ring and transverse bar. D 48. 522

328 Parks & Woolson Machine Co., Springfield, Vt.—Cloth-shearing machine, cloth-brushing machine, etc. Manufacturers of cloth finishing machinery, consisting of improved shearing machines for shearing all kinds of broad and narrow woolen goods, carpet rugs, shawls, etc.; also, double-acting brushing machine and teasling gigs, etc., etc. D 60. 522

329 Naylor & Jeffries, Philadelphia, Pa. —Carpet rag looper; adjustable clamp. D 50. 522

329*a* Rhodes, Thomas, Philadelphia, Pa.—Yarn beam. D 49. 522

329*b* James, B., Worcester, Mass.—Leather head spools for silk, wool, and cotton manufacturers' use. D 50. 522

329*c* Dienelt & Eisenhardt, Philadelphia, Pa.—Carpet loom, bobbin-winder, and Jacquard machines. C 55. 522

330 Short, James, New Brunswick, N. J.—Positive motion loom for all kinds of carpets. This motion is a differential duplex motion, and is a mechanical motion not before known; all dead centres are obviated by the use of this motion; in looms twenty-five per cent. less power is required and a speed of twenty per cent. increase is gained. The motion is adaptable to all kinds of looms. D 47. 522

331 Crabb, William, Newark, N. J., branch, Twentieth and Filbert streets, Philadelphia, Pa.—Hackles, wood and leather card clothing, wool combs, picker teeth, comb pins. Manufacturer of wood and leather card clothing, hackles, gills, picker teeth, wool combs, and all kinds of hackle, gill comb and card pins, and general mill furnishing. C 58. 522

332 Butterworth, James, & Son, Philadelphia, Pa.—Rag, waste, and shoddy picker. D 58. 522

333 Dornan Bros. & Co., Philadelphia, Pa.—Power loom for weaving without shuttles. Dispensing with complicated "box or shuttle motion," and thereby making great saving in waste. Having almost unlimited capacity for shading colors into the fabric, by means of mails, controlled by the Jacquard machine, cheapness and simplicity of construction, diminished expense in running, by reason of lessened wear and tear, also saving in cost of production, inasmuch as two or more looms can be run by one attendant; lessened service required from loom fixer, and consequent reduction in expense of production, by reason of fixer giving attention to double the quantity of shuttle looms now in use. Cone bobbin-winder.—Winding direct from skein; can be adjusted to wind bobbin from one and a half to eight inches in diameter, having a compensating traveling rod and friction barrels, operating so as to give equal tension on the yarn at all times. Power loom shuttles.—So constructed that the bobbin is prevented from flying up and tearing the warp whilst in operation. Carpet fabric, original designs. D 46. 522

334 Silcott, Millikan, & Gold, Washington C. H., O.—Cloth-measuring and rolling machine. D 52. 522

336 Hillman, Lewis, Philadelphia, Pa. —Automatic measuring machine. D 43. 522

337 Draper, George, & Son, Hopedale, Mass.—Spinning frame, spooler, warper, and creel; twister, spinning rings. C 51. 522

338 Whitney, Baxter D., Winchendon, Mass. — Wool-spinning machine. D 53. 522

340 Atlas Manufacturing Co., Newark, N. J.—Burr picker, to extract foreign substances from wool; single and double burr machine. C 34, 35. 522

341 Crabb, William, Newark, N. J.—Rope-makers' pins, gills. C 63. 524

342 Kuh, Sol., Grand Junction, Iowa.—Straw-twister, etc. C 63. 524

343 Gavit Machine Works, Philadelphia, Pa. — Paper-making machine and adjuncts. F 65–73. 525

344 Lobdell Car Wheel Co., Wilmington, Del.—Chilled-iron callender rolls for paper. E 65. 525

345 Holyoke Machine Co., Holyoke, Mass.—Web callender; beating-rag engine. F 74. 525

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

346 Entrekin, William G., Philadelphia, Pa.—Enameler for burnishing photographs, paper, etc. C 41. 525

347 Ross, E. W., & Co., Fulton, N. Y.—Paper mill. F 64, *and outside*. 525

347*a* Pusey, Jones, & Co., Wilmington, Del.—Wire guides for paper machinery. D 33. 525

Machines, Apparatus, and Implements used in Sewing and Making Clothing and Ornamental Objects.

348 Butler Braider Co., Clinton, Mass.—Braiding machinery. C 42. 530

349 Wimpfheimer, Mrs. C., Philadelphia, Pa.—Loom for manufacture of hair-ribbon. C 42. 530

350 Suplee Needle Co., New York, N. Y.—Needles for hand and sewing machines. C 8. 530

351 Oppenheimer, J. D., Philadelphia, Pa.—Patent process for curling hair by steam or hot water. Manufacturer of real and imitation hair goods. C 43. 530

352 Howard, George C., 13¼ South Eighteenth street, Philadelphia, Pa.—Forming and pressing machines for straw, felt, leather, and buckram. We also make machines for drawing sheet metal. B 31. 531

353 American Buttonhole, Overseaming, & Sewing Machine Co., Philadelphia, Pa.—Sewing machines. C 61. 531

354 Franz & Pope Knitting Machine Co., Bucyrus, Ohio.—Automatic knitting machines, seamless hosiery knitting machines; samples of work. C 64. 531

355 Wheeler & Wilson Manufacturing Co., Bridgeport, Conn.—Sewing machines and attachments; samples of work. C 44. 531

356 Washburn Machine Shop, Worcester, Mass.—American drawing models, adjustable drawing tables. C 38. 531

357 Wensley, James, Philadelphia, Pa.—Improvement in buttonhole sewing machines. C 46. 531

358 Lamb Knitting Machine Manufacturing Co., Chicopee Falls, Mass.—C 64.
a Knitting machines. 531
b Egg beaters. 224

359 Howe Machine Co., Bridgeport, Conn.—Sewing machines and attachments; samples of work. C 52. 531

360 Rex & Bockius, Philadelphia, Pa.—Sewing machine. C 69. 531

361 Bartlett, Joseph W., New York, N. Y.—Reversible sewing machines. C 45. 531

362 Wilson Sewing Machine Co., Chicago, Ill.—Sewing machines. C 47. 531

363 Billings & Spencer Co., Hartford, Conn.—Sewing machine shuttles, drop-forged and cold-pressed, from bar steel. B 40. 531

364 Wilcox & Gibbs Sewing Machine Co., New York, N. Y.—Sewing machines with automatic tension, etc. C 50. 531

365 Warth, Albin, Stapleton, N. Y.—Cutting machines for clothing, notching implement for patterns, folding machine. C 70. 531

366 United States Corset Co., New York, N. Y.—Corset-weaving power loom. C 46. 531

367 DuLaney, G. L., & Co., New York, N. Y.—Sewing machine. C 55 *and* B 29. 531

368 Florence Sewing Machine Co., Florence, Mass.—Sewing machines. C 51. 531

369 Davis Sewing Machine Co., Watertown, N. Y.—Sewing machines. C 51. 531

369*a* Robinson, L. W., Champaign, Ill.—Treadle for sewing and other machines. B 77. 531

370 National Suspender Co., New York, N. Y.—Loom for manufacturing suspenders; process of weaving suspenders with the name in; samples of work. C 67-69. 531

371 St. John Sewing Machine Co., Springfield, O.—Sewing machines. C 54. 531

372 Beckwith Sewing Machine Co., New York, N. Y.—Sewing machines. C 55. 531

373 McLean & Bennor Machine Co., Philadelphia, Pa.—Sewing machines. C 60. 531

374 Johnson, Clark, & Co., Boston, Mass.—Sewing machines. Home, Shuttle, National, and Union sewing machines are furnished for domestic or export trade, at very low prices. The "Home" runs with treadle only; the others by hand or treadle. C 59. 531

375 Campbell & Clute, Cohoes, N. Y.—Double table knitting machine, yarn winder, turning-off machine. C 64. 531

376 Hart, Wm., jr., 127 North Fourth street, Philadelphia, Pa.—Apparatus for moulding, curving, or round-shaping, pasteboard, brass, and other flexible substances. Patented May 23, 1876. C 65. 531

377 Yule, George, Newark, N. J.—Wool forming machine, sizing, stiffening, body stretching, etc., for hatters' use. C 67. 531

378 Victor Sewing Machine Co., Middletown, Conn.—Sewing machines, adjustable drill chuck, compensating journal. C 58. 531

379 Wagener, Jeptha, Holtsville, N. Y.—Sewing machines, carriages, and attachments. The great advantages of this machine are its simplicity, general utility, velocity and perfection of work. It is mounted upon a carriage, which is easily thrown on or off the wheels by a child, and is as easily moved from room to room as a child's toy. It makes all the stitches of all the other well-known machines, and is easily changed from one stitch to another by the operator, and, by a new feed device, the ordinary fault of fulling the under layer in a seam is entirely obviated. The especial excellence and superiority of this machine are shown by even a brief inspection of its work. The Wagener has a manufacturing capital of $2,000,000. C 62. 531

380 Whitney Manufacturing Co., Paterson, N. J.—Sewing machines. C 58. 531

For location of objects, indicated by letter and figure, see Key to Notation, p. 10; ground plan, p. 11.

Clothing-making, Sewing, Washing Machines.

381 Singer Manufacturing Co., Elizabethport, N. J.—Sewing machines, samples of work, and case of machine twist. (*Special building.*) 531

382 Home Knitter Co., Alliance, O.—One-needle knitter for stockings. C 64. 531

382*a* Decrow, A. W., Bangor, Me.—Sewing machine treadle. E 69. 531

384 New York Needle Co., Jersey City, N. J.—Needles, shuttles, and sewing machine attachments. C 66. 531

385 Shutt, Daniel, Philadelphia, Pa.—Machine-needle threaders. C 64. 531

386 Lathrop Anti-frictionate Co., New York, N. Y.—Anti-frictionate sewing machine. D 68. 531

387 Dyson Needle Co., New Britain, Conn.—Spring-needles and points for knitting machines. C 63. 531

388 Carpenter, Mrs. Mary P., New York, N. Y.—Sewing machine. C 59. 531

389 Haas, Joseph, Philadelphia, Pa.—Ancient knitting machine. C 64. 531

390 Hinkley, Jonas, Norwalk, O.—Carpet and floor sweeper, knitting machines. C 62. 531

392 Pearson, William, Philadelphia, Pa.—Hosiery-seaming machine. C 62. 531

393 Taft, J. C., Providence, R. I.—Sewing machines. C 7. 531

394 Hull & Belden Co., Danbury, Conn.—Machine for forming fur hats. C 72, *and annex.* 531

395 Domestic Sewing Machine Co., New York, N. Y.—Sewing machines. C 57. 531

396 Bickford, Dana, New York, N. Y.—Automatic knitting machines. C 73. 531

397 Willis, Charles E., Oyster Bay, N. Y.—Sewing machine feed. C 65. 531

398 Secor Sewing Machine Co., Bridgeport, Conn.—Family sewing machines. C 59. 531

398*a* Boles' Universal Feed-machine Co., New York, N. Y.—Sewing machines and attachments. C 42. 531

399 Wardwell Manufacturing Co., St. Louis, Mo.—Family sewing machine. Makes a perfect lock-stitch, direct from two store spools; dispenses with the shuttle, bobbin, and tiresome rewinding of under-thread; its needle is self-setting and self-fastening; feeds in any direction; is noiseless, simple, light-running, always in order, and its use saves much valuable time and labor. Ladies should examine it before buying. C 67 *and* 68. 531

400 National Hat-Pouncing Machine Co., New York, N. Y.—Machinery to shear the surface of fur and wool hats. C 70. 531

401 Eickmeyer Hat-Blocking Machine Co., New York, N. Y.—Machinery to stretch, block, iron, and sew sweats into fur and wool hats. C 70. 531

402 Cuming, M. A., New York, N. Y.—Hand-power hydraulic hat press. C 62. 531

403 Fish, Warren L., Newark, N. J.—Sewing machines. C 46. 531

404 McCloskey, John, Brooklyn, N. Y.—Sewing machines. C 59. 531

404*a* Hawley & Branson, Chicago, Ill.—Knitting machines. C 66. 531

404*b* Weed Sewing Machine Co., Hartford, Conn.—Sewing machines and samples of work. C 45. 531

404*c* Remington, E., & Sons, Ilion, N. Y.—Sewing machines; samples of work. C 49. 531

404*d* United States Sewing Machine Co., New York, N. Y.—Sewing machines. C 62. 531

404*e* Pusey, Jones, & Co., Wilmington, Del.—Morocco glazing machine. D 33. 531

405 Oakley & Keating, New York, N. Y.—Washing machine. E 80. 534

406 Buck, Isaiah D., Conshohocken, Pa.—Suction washing machine. E 77. 534

407 Woods, George, & Co., Cambridgeport, Mass.—Drying process. E 78. 534

408 Lewis, Rufus S., New Hampton, N. H.—Ironer and polisher for laundry use. E 77. 534

409 Sternberger, Leopold, Philadelphia, Pa.—Steam starching, ironing, and polishing machines for laundries. Patent right of starching machine for sale. Address L. Sternberger, 503 Market street, Philadelphia. E 76. 534

410 Calkins Champion Washer Co., Chicago, Ill.—Washing machine. E 77. 534

410*a* Barnard, A. B., West Fitchburg, Mass.—Mangles. E 78. 534

410*b* Howland, W. Penn, Auburn, N.Y.—Mangles. E 78. 534

410*c* Short, S., Cincinnati, O.—Mangle and ironer; blanket washing machine. E 77. 534

410*d* Pratt, Jas. W., Philadelphia, Pa.—Laundry washer. E 78. 534

411 York Manufacturing Co., York, Pa.—Washing machine. D 78. 534

411*a* Standard Laundry Machinery Co., Boston, Mass.—Washing, starching and wringing machines. E 77. 534

412 Bing, James, Philadelphia, Pa.—Mangle. E 77. 534

413 Walker, W. B., Boston, Mass.—Machine for pressing garments; smoothing-iron and sad-irons. E 79. 534

414 Briggs, Nicholas A., Shaker Village, N. H.—Shaker washing machine. E 79. 534

415 Burt & Putnam, Rockville, Conn.—Washer for scouring cloth. E 78. 534

415*a* Uhlinger, W. P., Philadelphia, Pa.—Centrifugal hydro-extractor. (*Pump Annex 8-10.*) 534

416 Felder, Charles, New York, N. Y.—Plaiting, pinking, fluting, and crimping machines. C 62. 534

417 Storrs, Levi B., Canton, N. Y.—Pressing machines for tailors' use. E 79. 534

418 American Watch Tool Co., Waltham, Mass.—Watch lathes and attachments, with all modern improvements, as used in the best American watch factories; model and astronomical instrument mak-

ers' lathes. Hill, Clarke, & Co., agents, 131 Milk street, Boston, Mass. C 41 *and* D 40. 535

419 Hopkins, C., Waltham, Mass.—Machinery and tools for making and repairing watches. C 41. 535

420 Stilwell & Bierce, Newark, N. J.—Jewelers' lathes, foot-press for rolling-mill, gold ingot. D 80. 536

421 National Needle Co., Springfield, Mass.—Machine for making hand and sewing-machine needles. C 40. 537

422 Pyramid Pin Co., New Haven, Conn.—Machine for sticking pins in paper. Also the processes of rolling, boxing, and finishing, in a pyramidal form, the same number of pins (360) usually sold on papers. This company make no cheap pins, but manufacture exclusively from the best spring-tempered brass wire, thus offering to consumers fine pins, in compact and convenient form for toilet, office, and work-basket. C 42–43. 537

Machines and Apparatus for Type Setting, Printing, Stamping, Embossing, and for Making Books, and Paper Working.

424 Howard, George C., 13¼ South Eighteenth street, Philadelphia, Pa.—Plate press for steel, copper, or zinc plate burnishers; power machines, ink, wipe, polish, and print twelve per minute. Screw printing, embossing, punching, and cutting press. Perforating or cutting machines for stamps, checks, sheet metal. Rotary and direct acting, heavy punching, cutting, and bending machines for metal. B 31. 540

425 Kelsey, W. A., & Co., Meriden, Conn.—Portable printing presses. F 32. 540

426 Hickok, W. O., Harrisburg, Pa.—Paper-ruling machines, head-striking machine, book-binders' standing press, and board cutter. F 34. 540

427 Gordon, George P., New York, N. Y.—Printing presses. F 34–36. 540

428 Potter, C., jr., & Co., 12 and 14 Spruce street, New York, N. Y.—Builders of book, job, newspaper, printing, and lithographic presses. Warranted perfect in every respect, and with all the latest improvements of the age. F 28–29. 540

429 Rex & Bockius, Philadelphia, Pa. —Printing presses. C 69. 540

430 Hoover, H., & Co., Philadelphia, Pa.—Printing presses. E 45. 540

431 Lent, A. E., Philadelphia, Pa.—Press for printing steel and copper plates. E 27. 540

432 Degener & Weiler, New York, N. Y.—Printing machines. F 30. 540

433 Golding & Co., Boston, Mass.—Printing presses, printers' tools. E 31. 540

434 Rosenthal, Isador, New York, N. Y.—Apparatus for stamping patterns of ladies' garments. E 32. 540

435 Hammett, L. C., Philadelphia, Pa. —Printers' rollers and composition. E 40. 540

436 O'Shea, Andrew J., Jersey City, N. J.—Devices for registering printing. E 29. 540

437 Bagger, Louis, Washington, D. C. —Printing press using compound lithographic stones. E 31. 540

438 Gally, M., New York, N. Y.—Two printing presses. E 31. 540

439 Bullock Printing Press Co., Philadelphia, Pa.—Printing presses and stereotyping machinery. E 25. 540

440 Cottrell & Babcock, New York, N. Y.—Stop-cylinder press, roller-drum cylinder press, perfecting press for illustrated cut work. F 26–27. 540

440*a* Kneass, N. B., jr., Philadelphia, Pa.—Press, type, and plates for printing literature and music for the blind. Specimen work. E 32. 540

441 Child, C. C., Boston, Mass.—Printing presses. F 32. 540

442 Daughaday, J. W., & Co., Philadelphia, Pa.—Printing press, self-feeding attachment. E 31. 540

443 Woods, B. O., & Co., Boston, Mass. —Amateur printing presses, improved type cases. E 30. 540

444 Dickson, John, & Co., Philadelphia, Pa.—Engraving on vulcanized rubber for printing on letter-press. E 32. 540

445 Ferre, Samuel P., Philadelphia, Pa.—Chromotype cylinder printing press, prints five colors at once. E 32. 540

446 Rose & McDondald, Philadelphia, Pa.—Roller-combs and rollers. E 40. 540

447 Kurtz, H. I., Philadelphia, Pa.—Process of manufacturing lithographic pictures, with specimens. E 34. 540

448 Hoe, R. R., & Co., New York, N.Y. —Printing presses. E 30 *to* 37. 540

449 Maclachlan, Hopkins, & Co., New York, N. Y.—Paging and numbering machine. D 25. 540

450 Campbell Printing Press & Manufacturing Co., Brooklyn, N. Y.—Printing presses and auxiliaries, printers' material. E 28. 540

451 Parks, John A., New York, N. Y.—Hand and scraper pattern power lithographic printing presses. F 25. 540

452 Boston & Fairhaven Iron Works, Fairhaven, Mass.—Newspaper and job printing press. F 25. 540

453 Loag, Samuel, Philadelphia, Pa.—Designs and specimens of color printing from blocks and plates; plate engraved by acid process. E 30. 540

454 Howell & Bros., Philadelphia, Pa.—Cutting off and rolling machine, hanging up and hardening machines. F 55–80. 540

454*a* Waldron, J. E., New Brunswick, N. J.—Wall paper printing machine and turn-around racks. F 80. 540

455 Gorham, W. B., & Co., Boston, Mass.—Rotary, lever, and treadle presses. E 26, 28. 540

456 Mann, Wm. H., Philadelphia, Pa. —Steam paging and numbering machine. E 32. 540

457 Newbury, A., & B., Coxsackie, N. Y.—Printing press. F 33. 540

Printing, Book-making, Paper-working Machines.

457*a* **Nelson, M., New York, N. Y.**—Printing machine. E 31. 540

457*b* **Johnson, Charles E., Philadelphia, Pa.**—Automatic paper-feeding machine. E 35. 540

457*c* **Pusey, Jones. & Co., Wilmington, Del.**—Forming cylinder; calender rolls. D 33. 540

457*d* **Burgess Proof Press Co., Belfast, Me.**—Proof press. F 32. 540

457*e* **Gally, Merritt, New York, N. Y.**—Job printing press; magneto-mechanical perforator. E 28. 540

458 Globe Manufacturing Co., Palmyra, N. Y.—E 28.
a Printing presses. 540
b Paper cutters. 546

459 Mackellar, Smiths & Jordan, Philadelphia, Pa.—Type founding machinery for casting and finishing types, types and printing materials. E 28, 29–38. 541

460 Armstrong, John M., Philadelphia, Pa.—Electrotyped music plates; books and sheet music. E 40. 541

461 Grant, Geo. B., Boston, Mass.—Calculating machines. E 44. 542

462 Bain, John W., 532 Walnut street, Philadelphia, Pa.—Type-writer; supersedes the pen, faster, manifolds, keys like a piano; children, blind, and aged, print at once. C. O. D., $125. John W. Bain, general agent (to whom all orders must be sent). E 40. 542

463 Pratt, John, Centre, Ala.—Type-writing machine. E 40. 542

464 Standard Laundry Machinery Co., Boston, Mass.—Telegraph copying machine. E 77. 542

465 Page, Wm. H., & Co., Greenville, Conn.—Wood type, specimen books of wood type. E 40. 542

466 Bruce's, Geo. Son, & Co., New York, N. Y.—Book of printing types, and cases of samples of printing types. E 5. 542

467 Hoffman & Hoyt, New York, N. Y.—Copying presses. E 40. 542

468 Westcott, C. J., New York, N. Y.—Machine for casting, dressing, and setting type. E 29. 541

469 Brainard, Charles R., Boston, Mass.—"Bank" and copy distributor for printing office. E 40. 542

470 Novelty Paper Box Co., Philadelphia, Pa.—Book stitching and sewing machines. D 23. 544

471 Marshall, Son, & Co., Boston, Mass.—Bookbinders', printers', and paper-box manufacturers' shears and machinery. E 26–27. 544

472 Automatic Book-Sewing Machine Co., Milford, Conn.—Book-sewing, pamphlet wire-stitching, and magnetic lasting machines. F 33. 544

473 Standard Machinery Co., Mystic River, Conn.—Steam rounding and backing machine, automatic book trimmer, and power paper cutter. E 40. 544

474 Semple, Mary H., Lowell, Mass.—Steam cutter for bookbinders' use. F 33. 544

475 Wm. F. Murphy's Sons, Philadelphia, Pa.—F 34–36.
a Blank-book manufactory and printing office. 544
b Paper-cutting machine. 546

476 Francis & Loutrel, New York, N. Y.—Folding machine for blank-book makers and paper mills. F 34–36. 545

477 Forsaith, S. C., & Co., Manchester, N. H.—Newspaper folding machine. E 39, *and Annex 1*. 545

478 Chambers, Bro., & Co., Philadelphia, Pa.—Newspaper folder, paster, and trimmer; book-folder; periodical folder, paster, and coverer. D 23. 545

479 Clagne, Randall, & Co., Rochester, N. Y.—Machine for covering pamphlets. D 23. 545

480 Jaeger, Gustav L., 69, 71 Wooster street, New York, N. Y.—Machine for pasting and combining any kind of paper, pasteboards, or textile fabrics; finishes fifteen thousand sheets a day. Patent-rights for sale. D 24. 546

481 Brown & Carver, Philadelphia, Pa.—Card and paper cutters. E 26–27. 546

482 Beck, Charles, Philadelphia, Pa.—Machinery for making paper boxes and cutting paper. D 25. 546

482*a* **Sanborn, Geo. H., New York, N. Y.**—Paper cutters, knife grinder, embosser, stabbing, and backing machines. D 24. 546

483 Child, C. C., Boston, Mass.—Paper cutter. F 32. 546

484 Cleveland Paper Box Machine Co., Cleveland, O.—Sole manufacturers of machine for making paper boxes; also, cutting press, nicking machine for blanks, and box knives. This machine glues, folds, makes, dries, and discharges the box, having a capacity of fifteen thousand a day. D 25. 546

485 Riehl, M., & Sons, Philadelphia, Pa.—Self-clamping book-cutting machine and paper-cutting machine. D 25. 546

486 Kerr, Norman M., & Co., Philadelphia, Pa.—Manufacture of paper boxes. D 25. 546

487 Boomer & Boschert Press Co., Syracuse, N. Y.—Copying press, paper presses, glue press, leather-binding press, cloth-baling press. Packer's press for tank refuse—power, three hundred tons; standing and bookbinders' presses, Nos. 0, 1, 2, and 3—power, 30, 80, 120, and 200 tons. Cloth-baling press—power, 250 tons. Copying press for banks, freight, and post-offices—power 20 tons. (For presses for cider or lard, see *Agricultural Hall, S and T 12.*) E 39. 546

487*a* **Bass, Joseph P., Bangor, Me.**—Burnisher for polishing photographs. B 30. 546

488 Curtis & Mitchell, Boston, Mass.—Paper cutters, self-inking printing presses, card cutters, etc. D 24. 546

489 Sheridan, E. R. & T. W., New York, N. Y.—Paper cutters, book trimmer, shears, presses, sawing machine, etc. D 25. 546

490 Packer, Charles W., Philadelphia, Pa.—Machines for cutting card board. D 25. 546

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

Paper-working Machines, Engines, Boilers, etc.

491 Vanhorn & Cranston, Brooklyn, N. Y.—Paper-cutting machines. E 28. 546

492 Lockwood, W. E. & E. D., 255 South Third street, Philadelphia, Pa.—Patent automatic envelope machine, which cuts, folds, gums, and counts 120 envelopes a minute. Automatic self-feeding envelope printing machine; capacity 6,000 an hour. Paper collar machine, which cuts, stamps, button-holes, and finishes 30,000 collars a day. Seed-bag envelope machines; envelope cutting press; small drug envelope machine. (*Section D 3, post 27, centre aisle.*) 547

493 Hoole, John R., New York, N. Y.—Perforating machine for checks, stamps, tickets, etc.; paging and numbering machine, for paging blank books and numbering bank notes, checks, coupons, tickets, etc. F 34-36. 547

494 Cohen, Chas. J., Philadelphia, Pa.—Machine for folding, gumming, and finishing self-sealing envelopes. D 26. 547

494*a* Raynor, Samuel, & Co., New York, N. Y.—Envelope machine. D 25. 547

Motors and Apparatus for the Generation and Transmission of Power.

495 Williamson Bros., Philadelphia, Pa.—Portable and stationary hoisting engines, with spur and frictional gearing. D 79, *and boiler house* 4. 550

496 Tupper, Lorenzo B., New York, N. Y.—Furnace grate bars. D 76. 550

497 Connery, James W., Philadelphia, Pa.—Concave calking for steam boilers, iron ships, and metallic vessels. D 76. 550

498 Tupper, W. W., & Co., New York, N. Y.—Grates for steam boiler furnaces, etc. D 78. 550

499 Frick & Co., Waynesborough, Pa.—Portable farm and stationary engines. D 75, *and boiler house 4.* 550

500 Bigelow, H. B., & Co., New Haven, Conn.—Combined and independent engines and boilers. D 71. 550

501 Steam Generator Manufacturing Co. of Pennsylvania, Philadelphia, Pa.—Sectional boiler. (*Boiler house 4.*) 550

502 American Engine Co., Jersey City, N. J.—Engines and thresher locomotive. D 75. 550

503 Shaw, Thomas, 915 Ridge avenue, Philadelphia, Pa.—Steam and vacuum gauges, test pumps, air chamber feeder, hydraulic valves and gauges. Cushion-seated valves, exhaust nozzles, planer bar. Gauge is free of springs, and measures by weight alone; has been adopted by United States Government and principal establishments as standard of pressure. Test pumps are of superior make and finish, adapted to pressure in small quantities, to every pressure desired. Air-chamber feeder, a useful invention; utilizes vibrations of water in pump to supply air-chambers with air. Hydraulic stop-valve; controls the highest pressure without leakage; has threaded seat. Cushion-seated valve; uses face of valve as dash-pot; prevents pounding. Exhaust nozzle absorbs noise of exhaust steam, and arrests sparks in locomotives. Planer bar, doubles the capacity, of iron planers; reaches through work. D 69. 550

504 Reed, John A., New York, N. Y.—Tapering corrugated sectional boilers. D 77. 550

505 Steigert, Leopold, Cincinnati, O.—Meat-chopping machines, with engine attachments, horizontal engine. D 78. 550

506 Bent, Samuel S., New York, N. Y.—Shaking grate bars for steam boilers, etc. E 75. 550

507 Harrison Boiler Works, Philadelphia, Pa.—Sectional safety steam boiler. First class bronze medal, London, 1862; first class bronze medal, New York, 1869; gold and silver Rumford medals, Boston, 1871; first class silver medal, Philadelphia 1874. *Section D 77, and boiler house* No. 4. 550

508 Babcock & Wilcox, New York, N. Y.—Sectional safety steam boiler. (*Boiler house 3.*) 550

509 Meissner, Julius H., Philadelphia, Pa.—Shelving grates and furnaces. E 76. 550

510 Shore Bros., Philadelphia, Pa.—Boiler feed, belt pumps, steam pump. E 75. 550

511 Houghton, R. J., New York, N. Y.—Boiler and tube compound for removing and preventing scale; specimens of scale. E 76. 550

512 Snyder, Ward B., New York, N. Y.—Steam engine. Snyder's Little Giant steam engine, one-horse power complete, with tubular boiler, $150; two-horse power, $200; three-horse power, $250. Send for circular. Factory, 84 Fulton street, N. Y. B 71. 550

513 Howard Safety Boiler Manufacturing Co., Boston, Mass.—Safety sectional wrought-iron nine-inch tube boiler. (*Boiler house 3.*) 550

514 Ames Iron Works, Oswego, N. Y.—Portable steam engines. B 74, *and boiler house.* 550

516 Erie City Iron Works, Erie, Pa.—Horizontal tubular boiler, portable engines, farm engine with vertical boiler and horizontal engine. C 76. 550

516*a* Springfield Iron Works, Springfield, Mo.—Turbine water wheel. D 80. 550

517 Ryder Reciprocal Grate Association, Taunton, Mass.—Reciprocal grates. Books on grates, combustion, and results of tests, sent free. D 68. 550

518 Lowe & Watson, Bridgeport, Conn.—Steam boiler. Lowe's patent steam boiler, made entirely of steel plates; proved by eight years' use, under all conditions, to be safe, durable, reliable, and very economical of fuel. Great and uniform steaming capacity. Process of combustion (smokeless with any fuel) obtained in construction and setting. (*Boiler house 3.*) 550

519 Chalmers Spence Co., Philadelphia, Pa.—Composition boiler and steam pipe covering; tube cleaner. D 78. 550

520 Shuster, John T., Philadelphia, Pa.—Boiler and pipe covering. D 78. 550

Engines, Boilers.

521 Murrill & Keizer, Baltimore, Md. —Automatic damper regulator for steam boilers. D 64, *and Pump annex.* 550

522 Baird & Huston, Philadelphia, Pa. —Horizontal tubular boiler. D 38 *to* 40. 550

523 Exeter Machine Works, 140 Congress street, Boston, Mass.—Sectional independent expansion and contraction boiler. Following is extract from report of the Franklin Institute, Philadelphia, Sept. 29, 1875, as to its safety qualities: "The Exeter Sectional Boiler" comes very near to it, if it does not solve that difficult problem of uniting small compartments composing a boiler of considerable size, and at the same time provide for the free escape of steam without lifting the water. Many sectional boilers are so constructed in combining their parts as to cause the steam generated in the lower portion of the apparatus to force its way in zig-zag courses through a whole neighborhood of narrow passages, or through a number of long, comparatively small and nearly horizontal tubes, into which it is quite impossible for the water to promptly follow, as it should do, in order to maintain perfect circulation and take up all the transmitted heat before effecting its escape. The water in the "Exeter" section exists in vertical masses about 3¼ inches square and 28 inches high, a form favorable to the ready liberation of the steam to and from the surface of the water, and securing at the same time prompt circulation and supply of water to the heated surfaces of the boiler. * * * We find, on careful and extended inquiry, that the "Exeter boiler," thus far in its existence and service, has an excellent record sufficient to justify us in making the assertion that it is equally as safe as any sectional boiler in the market known to us. We have not found any evidence, whether derived from the severest experimental tests to which a boiler can be subjected, or from long continued daily use, under the ordinary working conditions in the factory, which would prove it to be dangerous as a generator of steam. (*Boiler house 3.*) 550

524 Hoadley Co., J. C., Lawrence, Mass. — Portable steam engines, with or without wagons, various sizes, 9 to 100 horse power; automatic variable cut-off, giving uniform speed and great economy of fuel, requiring only 21 to 30 pounds of feed water, and 3 to 3¼ pounds of coal per horse power per hour. Cheap, light, compact, durable, safe, convenient, economical. D 80. 550

525 Kelley, Wm. E., New Brunswick, N. J.—Sectional safety boiler. (*Pump annex, and boiler house.*) 550

525*a* Smith, S. Decatur, Philadelphia, Pa.—Skeleton grate bar. E 77. 550

25*b* Potts Bros., Pottstown, Pa.—Flanged boiler iron, and boiler flue iron. B 24-25. 550

525*c* Wilson, Benj. F., Philadelphia, Pa.—Shuttle and stop valves. B 70. 550

525*d* Hoyt, J. B., New York, N. Y.—Steam generating furnace, for the perfect combustion of all the gases in bituminous coal, thereby preventing smoke. (*Boiler house 6.*) 550

525*e* O'Hara, Charles M., Boston, Mass. —Ash felting for steam pipes. B 69-71. 550

525*f* Winans, H. N., New York, N. Y. —Boiler powder, compounds and liquids; anti-incrustators; boiler cleaner. D 78. 550

526 Lovegrove & Co., Philadelphia, Pa. —Vertical tubular boilers. B 75, *and boiler house 4.* 550

527 Armstrong Heater Manufacturing Co., Toledo, O.—Improved heater, lime extractor, condenser, adjustable feed pump for steam boilers. D 74. 550

527*a* Hanmore, Jno. W., Newburgh, N. Y.—Comb felting, blast pipes, vacuum pans, etc. B 71. 550

527*b* McConn, John, Philadelphia, Pa. —Radiators, for steam or water, and boiler. E 76. 550

527*c* Miller, Charles B., Philadelphia, Pa.—Steam generator. (*Boiler house 4.*) 550

528 Firmenich, J., Buffalo, N. Y.—Steam boiler. (*Boiler house 4.*) 550

529 Ellis, Charles R., New York, N. Y. —Hot-water apparatus for heating buildings. D 75. 550

530 Haskins Steam Engine Co., John F. Haskins, Fitchburg, Mass.—Interchangeably-made vertical steam engines. C 10-74, *and boiler house 4.* 550

531 Kreider, Campbell, & Co., Philadelphia, Pa.—Horizontal steam engine. E 50. 550

532 American Road Steamer Co., Philadelphia, Pa.—Road steamer. E 80. 550

533 Hartford Steam Boiler Inspection & Insurance Co., Hartford, Conn.—Incrustation, scale, and defective iron from steam boilers, fragments of exploded boilers. D 76. 550

534 Colt's Patent Fire Arms Manufacturing Co., Hartford, Conn.—Steam engines, steam cylinder in boiler, interchangeable parts. D 74, *and boiler house 4, and quartz mill.* 550

535 Sample, McElroy, & Co., Keokuk, Iowa.—Semi-portable steam engine and boiler. This firm makes a specialty of manufacturing these engines, and are prepared to fill orders promptly, if addressed as above. D 77. 550

536 Payne, B. W., & Sons, Corning, N. Y.—Vertical engines with safety boilers; 3 to 4 horse power; impossible to explode; price, $250, complete, except smoke stack. (*Boiler house 4.*) 550

538 Vail, S. S., Keokuk, Iowa.—Reversible steam boiler, with automatic fuel feed. To remove scales, reverse ends. Convenient to clean or repair. Rights for sale. C 77. 550

539 Lynde, J. D., Philadelphia, Pa.—Safety boiler. B 71, *and boiler house 4.* 550

540 Peirce Rotary Tubular Boiler Co., New York, N. Y.—Rotary tubular steam boiler. (*Boiler house 5.*) 550

541 Smith, Charles D., Boston, Mass. —Steam tubular boiler, steam boiler furnace and setting grate bars; glass water gauge. C, *and boiler house 3.* 550

542 Gillis & Geoghegan, New York, N. Y.—Boiler feeder and steam trap. (*Boiler house 6.*) 550

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13-15.

Engines, Boilers, Water-Wheels.

543 Harrold, George W., Rochester, N. Y.—Automatic steam trap. D 64. 550

544 Johns, H. W., New York, N. Y.—F 64.
a Asbestos roofing, asbestos cement felting, lined hair felt. 228
b Asbestos steam packing. 555

545 Skinner & Wood, Erie, Pa.—C 78.
a Horizontal return flue boiler; variable grate surface for wood or coal. 550
b Portable engine, stop motion governor, self-oiling connecting rod, combined check, stop, and relief valve. 552

545*a* Starr, William M., Tyler, Texas.—D 78.
a Water wheel, car starter, glass cutter, etc. 581
b Road engine. 552

546 Sellers, William, & Co., Philadelphia, Pa.—C 18–25, *and Annex 1.*
a Injectors. 550
b Three cylinder engines. 552
c Shafting, hangers, couplings. 553

547 Haworth, James, Philadelphia, Pa.—Turbines, driven by hydrant-water power. D 73. 551

548 Lane Manufacturing Co., Montpelier, Vt.—Monitor turbine water-wheel. Sets in open flume or in a closed curb; perfectly balanced cylindrical gate; water applied upon the entire periphery of wheel. A 4, 35–36. 551

549 Grier, W. W., Hulton, Pa.—Hydraulic ram sentinel. D 79. 551

550 Stout, Mills, & Temple, Dayton, O.—Turbine water-wheels with and without flumes. Thousands of these wheels are in successful operation, driving all kinds of machinery. They have been introduced into nearly every civilized country in the world. They produce a very high percentage of power, are compact and durable. Call at Machinery Hall, and get descriptive catalogue, or address proprietors as above. D 80. 551

551 Stilwell & Bierce Manufacturing Co., Dayton, O.—Double turbine water-wheel, simple, durable, and powerful. D 80. 551

552 Dexter Spring Co., Hulton, Pa.—Carriage spring, in connection with fifth wheel. D 79. 551

553 Leffel, James, & Co., Springfield, O., and 109 Liberty street, New York.—Double turbine water-wheel. D 77. 551

554 Chase Turbine Manufacturing Co., Orange, Mass.—Turbine wheels. (*Pump annex.*) 551

555 Wolf, Abraham N., Allentown, Pa.—Turbine water-wheel and flume. (*Pump annex.*) 551

556 Buzby, Albert G., Philadelphia, Pa.—Water motor from hydrant pressure; model of centripetal railway. D 79. 551

557 Bodine Manufacturing Co., Mt. Morris, N. Y.—Brass turbine water-wheel. D 79. 551

558 Valentine, Wm. J., Fort Edward, N. Y.—Turbines, with and without register gates; hydraulic motor. D 79. 551

559 Wright & Rogers, Minneapolis, Minn.—Stationary, portable, locomotive, and marine steam engine. D 79. 551

560 Mosser, Wm. F., & Co., Allentown, Pa.—Turbine water-wheel. A 48, *and Pump annex.* 551

561 Wright, James, Minneapolis, Minn.—Cylinder meter motor. D 79. 551

562 Springfield Iron Works, Springfield, Mo.—Turbine wheel. D 80. 551

563 Bing, James, Philadelphia, Pa.—Turbine water-wheel. E 77. 551

564 Poole & Hunt, Baltimore, Md.—Turbine water-wheels and gearing. C 79. 551

565 Cox & Sons, Bridgeton, N. J.—Turbine water-wheels. C 32. 551

566 York Manufacturing Co., York, Pa.—Turbine water-wheels. D 78. 551

567 National Water-Wheel Co., Bristol, Conn.—Turbine water-wheels. D 77. 551

568 Barber & Son, Allentown, Pa.—Globe flume, with turbine wheel. D 77. 551

569 Brown, Son, & Co., Brookville, Pa.—Turbine water-wheels. D 78. 551

570 Cope, E. T., & Sons, West Chester, Pa.—Turbine water-wheel, with water-tight gates opening separately. (*Pump annex.*) 551

571 Bollinger, O. J., York, Pa.—Turbine water-wheel. (*Pump annex.*) 551

572 Risdon, T. H., & Co., Mount Holly, N. J.—Turbine water-wheel. Many sizes of this wheel, at tests by different engineers, and under different conditions, have given over 90 per cent. of the power of the water consumed. (*Pump annex.*) 551

573 Walton, Silas, Moorestown, N. J.—Turbine water-wheel. (*Pump annex.*) 551

574 Alcott, Thos. J., Mount Holly, N. J.—Turbine water-wheel. D 78. 551

575 Tait, Thomas, Rochester, N. Y.—Water-wheel. The guides form wedge-shaped openings under all degrees, cutting water off at periphery of wheel; counterpoising under any hydrostatic pressure. Surface joints prevent water escapement between curb and wheel. (*Pump annex*) 551

576 Knowlton & Dolan, Logansport, Ind.—"Little Giant" turbine water-wheel, noted for economy in the use of water, and durability. (*Pump annex.*) 551

576*a* Howobin, W. T., Cohoes, N. Y.—Water-wheel governor; rollers. D 78. 551

576*b* Burnham, N. F., York, Pa.—Turbine water-wheel. (*Pump annex.*) 551

576*c* Capron Water-Wheel Manufacturing Co., Hudson, N. Y.—Water-wheels. D 77. 551

576*d* Rodney Machine Co., Orange, Mass.
a Double-acting turbine water-wheel. (*Pump annex.*) 551
b Rotary fulling mill. D 45. 552

577 Folsom, Andrew, Barrington, R. I.—Wheel constructed to operate in the direction of wind or water. (*Pump annex.*) 551

578 Peirce, Milton P., Wenonah, N. J.
a Turbine water-wheel. C 80. 551
b Portable steam engine. D 78. 552

Engines, Boilers.

579 Abendroth & Root Manufacturing Co., 96 Liberty street, New York, N. Y. —Wrought iron sectional safety boiler. These boilers were introduced to the public in 1867. There is now over forty-five thousand horse-power in use in all parts of the world. (*Boiler house 3.*) 552

580 Fields, Wm., Wilmington, Del. —Motor-power model-dumping coal wagon. B 79. 552

581 Bolles, J. N., Baltimore, Md. — Steam engine. (*Outside.*) 552

582 Cobb, Z., & Sons, Wilmington, Del. —Water engine for sewing machines, etc. E 68. 552

583 Wetherill, Robt., & Co., Chester, Pa.—Steam engine, with self-packing piston. B 69. 552

584 Baird & Huston, Philadelphia, Pa. —Steam engines. D 38–40. 552

585 Lobdell Car Wheel Co., Wilmington, Del.—Portable steam engine and boiler. E 65. 552

586 Cornell University Machine Shop, Ithaca, N. Y.—Steam engine. B 68. 552

587 Rider, Wooster, & Co., Walden, N. Y.—Compression engines, operating without valves, using compressed and heated air. B 80. 552

588 Lovegrove & Co., Philadelphia, Pa.—Steam engine. B 75, *and Boiler house 4.* 552

589 Jerome, William R., Philadelphia, Pa.—Electro-magnetic motor, for running sewing machines, etc. B 69. 552

590 Dudgeon, Richard, New York, N. Y.—Rotary engine. C 27. 552

590*a* Murray Iron Works Co., Burlington, Iowa.—Steam engine. E 60. 552

590*b* Brayton, George B., Philadelphia, Pa.—Hydro-carbon engine. A 71. 552

591 Wardwell, George J., Rutland, Vt. —Stationary and portable valveless steam engines. B 77. 552

592 Moorhouse, R. O., & Co., Philadelphia, Pa.—Steam engine, with gear for variable expansion adjusted by the governor. B 73. 552

593 Hawley, Henry Q., Albany, N. Y. —C 75.
a Water motors. 551
b Gas heating and cooking furnaces. 552

594 Buckeye Engine Co., Salem, O. —Automatic cut-off and throttling steam engines. B 70. 552

595 Hussey, Charles A., New York, N. Y.—Electro-magnetic engines. E 69. 552

596 Gladwin, Charles P., Philadelphia, Pa.—Plain-slide valve steam engines with governor and automatic stop and speeder. B 71, *and* C 77. 552

597 Lidgerwood Manufacturing Co., New York, N. Y.—Hoisting and elevating engines. B 79, *and Annex 3.* 552

598 Carlisle, Mason, & Co., Chicago, Ill.—Chain elevating machinery. C 76. 552

599 Shapley & Wells, Binghamton, N. Y.—Steam engines. D 80, *and Boiler house 4.* 552

599*a* Russell, William D., New York, N. Y.—Engines. (*Outside of building.*) 552

599*b* Butterworth, H. W., & Sons, Philadelphia, Pa.—Sheet iron; tin cans. D 44 *to* 48. 552

599*c* Baxter Steam Engine Co., New York, N. Y.—Steam engines; in use in Gillinder & Sons' glass-house and in Nevada State building. 552

599*d* Wisner & Strong, Pittston, Pa.— Horizontal engine. B 71. 552

599*e* Forbes, J. W., Chicago, Ill.— Quartz battery for crushing quartz. A 73. 552

600 Mitchell, J. H., Philadelphia, Pa.— Steam engines. B 80. 552

600*a* Hampson, Whitehill & Co., New York, N. Y.—Stationary engine. B 73. 552

601 New York Safety Steam Power Co., New York, N. Y.—Launch engines, stationary engine, combined engine and boiler. E 38–40. 552

602 Lynde, J. D., Philadelphia, Pa.— Duplex engine. B 71, *and Boiler house 4.* 552

603 Naylor, Jacob, Philadelphia, Pa.— Engines, horizontal and vertical boiler feed pump, and combined feed pump and heater. D 71–73. 552

604 Roberts, E. A. L., Titusville, Pa.— Exhaust engine; exhaust crank. C 78. 552

605 Ervien, Charles W., & Bro., Philadelphia, Pa.—Steam engines. B 69, *and Pump annex.* 552

606 McCutchen, John F., Philadelphia, Pa.—Block for eccentric hooks of steam engine. B 77. 552

607 Meeker, D. M., & Sons, Newark, N. J.—Part of cylinder of the first steam engine used in America. B 76. 552

608 Griffith & Wedge, Zanesville, O.— Vertical portable engine, and centrifugal drying machine. C 74 *and* D 77. 552

609 Klein, Chas. C., Philadelphia, Pa. —Eccentric piston engine. C 79. 552

610 Jeffery, Thos. B., Chicago, Ill.— Rotary steam engines. B 77. 552

611 Hartford Foundry & Machine Co., Hartford, Conn. — Automatic and variable cut-off non-condensing steam engine. These engines, formerly known as the "Woodruff & Beach" iron works engine, have acquired a very wide reputation on account of their excellent performances. They are a type of steam motor, combining the prime essentials of solidity, durability, and great economy. There are now in daily use over three hundred, practically demonstrating their merits. (*Annex 1.*) 552

612 Twiss, Nelson W., New Haven, Conn.—Vertical engine, yacht engine. C 79. 552

613 Blandy, H. & F., Zanesville, O. —Portable, agricultural, and saw-mill engines, and stationary engine. B 68. 552

613*a* Lewistown Brass & Engine Co., Lewistown, Pa.—Upright and horizontal engines. C 74. 552

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

Engines and Appliances, Belting, Shafting, etc.

613*b* **Allis, Edward P. & Co.,** Milwaukee, Wis.—Steam engine. (*Saw mill. A* 10–11.) 552

614 **Erie City Iron Works,** Erie, Pa.—Stationary engine, horizontal engine. C 76. 552

615 **Otis Bros. & Co.,** 348 Broadway, New York, N. Y.—Furnace engine for hoisting purposes. The blast furnace hoisting engine, is adapted for operating two platforms; store hoisting engines, small size, lifting power and gear combinations, lifting power with screw combinations, for use in factories, mills, etc., and safety platforms for freight purposes, with corner and side upright; tiercing truck for piling up heavy boxes or packages. B 38. 552

616 **Bastet Magnetic Engine Co.,** Philadelphia, Pa.—Magnetic engines for sewing machines, organs, lathes, pumps, etc. B 75. 552

617 **Wells Balance Engine Co.,** New York, N. Y.—Double piston engine. C 77. 552

618 **Niagara Steam Pump Works,** Brooklyn, N. Y.—Miniature engine. Direct acting piston, pressure, and fire pump, direct acting plunger mining pump, crank pump and engine; direct acting organ engine; direct acting agitator and oil pump; direct acting plunger, on boilers in saw mill, loaned Centennial Commission. (*Pump annex.*) 552

619 **Brown, C. H., & Co.,** Fitchburg, Mass.—Automatic regulating cut-off steam engine. (*Saw mill.*) 552

620 **Howard, George C.,** 13¼ South Eighteenth street, Philadelphia, Pa.—Patent belt gearing for operating machines of variable speed, sewing machines, etc. B 31. 553

621*a* **Powers, W. P., La Crosse, Wis.**—Belting. A *and* B, *Saw mill.* 553

621*b* **Stow & Burnham,** 500 North Fifteenth street, Philadelphia, Pa.—Flexible cable for transmitting power in any direction, also tools and machines operated therewith; drills workable wherever ratchet drill is used; flue cutter for removing locomotive flues. D 68. 553

621*c* **Wahl, Albert, Philadelphia, Pa.**—Health apparatus; back straightener and chest expander. E 75. 553

622 **Eckfeldt & Richie, Philadelphia,** Pa.—Oak-tanned leather butts, belting and fire hose. D 65. 553

623 **Page Belting Co., Concord, N. H.**—Leather belting and lace leather; driving belt (in use). D 64. 553

624 **Roebling's Sons, John A., & Co.,** Trenton, N. J.—Wire rope, rigging, rope fastenings, bridge cables, rods, telegraph wire, etc. C 64. 553

625 **Alexander Bros.,** 410 & 412 North Third street, Philadelphia, Pa.—Oak-tanned leather belting, and frame of specimen laps; also patent double belt-driving shaft No. 3, the construction of which greatly increases the effectiveness and durability of belts from 16 to 48 inches, or wider. Descriptive circulars furnished. D 64. 553

626 **Cresson, Geo. V., Philadelphia, Pa.**—Pulleys, hangers, couplings, wall boxes, pillow blocks; etc. C 71–73. 553

627 **Heim, Anton, New York, N. Y.**—Leather belting, hydraulic packing leather, tympan skins, lace leather, picker leather, elastic pulley; driving belt (in use). D 65. 553

628 **Branch, Crookes, & Co., St. Louis,** Mo.—Adjustable countershaft hanger and belt tightener, for intermediate motion without loose pulleys. (*Saw mill.*) 553

629 **Rorer, Thomas I., Philadelphia,** Pa.—Combined leather and canvas belting. D 65. 553

630 **American Tubular Iron & Steel** Association, Philadelphia, Pa.—Tubular iron and steel car axles, shafting, columns, bars. C 70–73. 553

631 **Pennsylvania Combined Iron &** Steel Association, Philadelphia, Pa.—Combined iron and steel rails, beams, girders, shafting plates, horse shoe and merchant bars. C 70–73. 553

632 **Jones & Laughlins, American Iron** Works, Pittsburg, Pa.—Bar, sheet, and plate iron, T-rails, shafting, hangers, pulleys, couplings. Manufacturers of bar, hoop, sheet, and plate iron; patent cold-rolled shafting; hangers, pulleys, couplings, T-rails, street rails, nails, and spikes. C 65 *and* 70. 553

633 **Schieren, Charles A., New York,** N. Y.—Oak-tanned leather belting; double belt (in use). D 64. 553

634 **Charlton, John, Philadelphia, Pa.**—Internal clamp coupling for shafting, main driving pulley, with internal clamp hub. C 71 *and* 73. 553

635 **Hoyt, J. B., & Co., New York, N.Y.**—Oak-tanned sole leather and belting. D 66. 553

636 **Royer, H., San Francisco, Cal.**—Fulled rawhide, belting, lacing, rope. D 66. 553

637 **Chatfield, Underwood, & Co., New** York, N. Y.—Angular belting. D 65. 553

638 **Pusey, Jones, & Co., Wilmington,** Del. C 74.
a Expanding pulleys. 553
b Temper cut-offs and governors for steam engines. 555

639 **Jewell, P., & Sons, Hartford, Conn.**—Leather belting, metallic-tipped belt lacings. D 67. 553

640 **Mason, Volney W., & Co., Provi**dence, R. I.—Friction clutches and pulleys, adjustable hangers; also, friction clutch pulleys, driving main lines of shafting in pump annex, and in Machinery Hall adjoining, near Corliss engine. D 66 *and Pump annex.* 553

641 **Poole & Hunt, Baltimore, Md.**—Shafting and appurtenances. C 79. 553

641*a* **Eccles, James, Philadelphia, Pa.**—Shaft coupling. D 60. 553

642 **Gates, Josiah, & Sons, Lowell,** Mass.—Leather belting, hose, lacing, and worsted apron leather and fire supplies. C 78. 553

643 **Burgess & Son, Providence, R. I.**—Leather belting, lace leather, picker leather, loom pickers. C 70. 553

644 **Cook, A. B., & Co., Erie, Pa.**—Adjustable dead pulleys, wooden belt pulleys, and taper sleeve pulleys. D 72. 553

HARRISON
Boiler Works,

2550 Gray's Ferry Road, Phila.

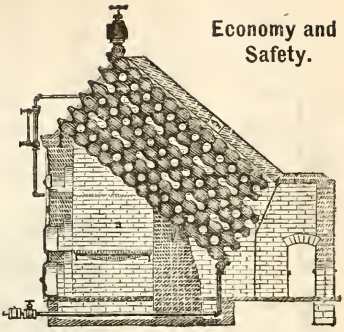
(TAKE PINE ST. CARS.)

The following Medals have been awarded to this boiler:

By the World's Fair, London, First-class Bronze, 1862.
American Institute Fair, N. Y. " " 1869.
Great Gold and Silver Rumford Medals, 1871.
Franklin Institute Exhibition, First-class Silver, 1874.

Descriptive Pamphlets, Drawings, &c. furnished upon application to the Works.

These Boilers may be seen in operation in Boiler-house No. 4 of Machinery Hall.



Economy and Safety.



HASELTINE GALLERIES,

1125 and 1127 Chestnut St., Philadelphia.

ESTABLISHED 1810.

W. A. BROWN & CO.

SUPERIOR

UMBRELLAS AND PARASOLS.

Manufactories in Philadelphia.



TRADE-MARK.

WAREROOMS:

246 Market Street,
PHILADELPHIA.

498 & 500 Broadway,
NEW YORK.

BALDWIN LOCOMOTIVE WORKS,

BURNHAM, PARRY, WILLIAMS & CO., PHILADELPHIA.

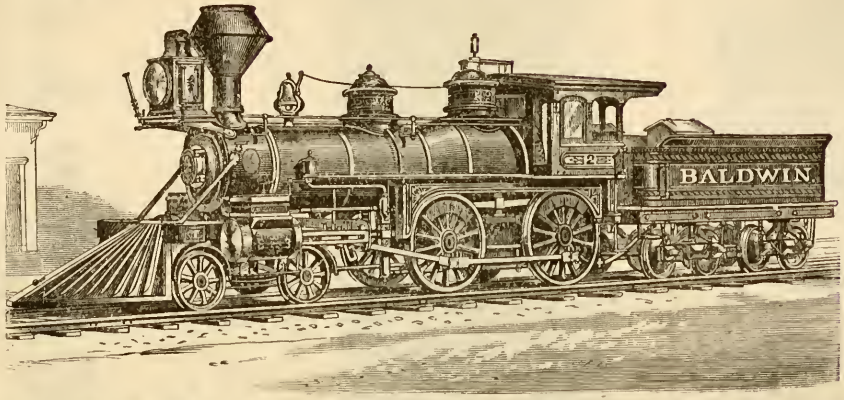
ALL WORK

Accurately Fitted

TO GAUGES

AND

Thoroughly Interchangeable



PLAN, MATERIALS

WORKMANSHIP,

FINISH AND EFFICIENCY

FULLY

GUARANTEED

LOCOMOTIVE ENGINES,

ADAPTED TO EVERY VARIETY OF SERVICE, INCLUDING

Narrow Guage Locomotives, Mine Locomotives, Steam Street Cars,

ETC., ETC.

Works on Broad St., from Pennsylvania Ave. to Spring Garden St.

Motors and Appliances.

645 Fowler, F. G., Bridgeport, Conn.—Propeller. B 72. 554

645*a* Neafie & Levy, Philadelphia, Pa.—Propeller wheels and blade. C 77. 554

645*b* Lane Bros., Millbrook, N. Y.—Motor for driving light machinery. C 77. 554

645*c* Rhett, Roland, Baltimore, Md.—Spring motor for sewing machines. C 71. 554

645*d* Harper, William, jr., Philadelphia, Pa.—Screw propeller. C 76. 554

646 Brown, Edward, Philadelphia, Pa.—Pyrometers for blast furnaces, bakers' ovens, tempering steel, etc.; revolution indicators. D 68. 555

647 Woodruff, Joseph, Rahway, N. J.—Balanced steam damper regulator. D 76. 555

648 Wickersham & Bro., Philadelphia, Pa.—Oil feeder, brass and glass oil cups. D 76. 555

649 Pancoast & Maule, Philadelphia, Pa.—Steam and hot water house heating apparatus, vertical tube radiators, pipe cutter. D 75. 550

650 New York Belting & Packing Co., New York, N. Y.—Rubber belting, packing, hose, tubing, car springs, vulcanite emery wheels, etc. D 75. 555

650*a* Ashcroft, E. H., Boston, Mass.—Steam and vacuum gauges; safety valves; oil testing machine. D 72–73. 555

650*b* Allis, E. P., & Co., Milwaukee, Wis.—Boiler feed regulator. (*On boiler in Campbell Press Building.*) 555

650*c* Katzenstein, L., & Co., New York, N. Y.—Metallic packing for piston rods and valve stems. E 40. 553

650*d* Potter & Hoffman, Philadelphia, Pa.—Steam packing. B 30. 555

651 Parshall, C. H., Detroit, Mich.—Lubricator. D 71. 555

652 Belfield, H., & Co., Philadelphia, Pa.—Brass and iron valves, cocks, steam gauges, whistles, gongs, steam heating apparatus, etc. D 74. 555

652*a* Rue Manufacturing Co., Philadelphia, Pa.—Boiler feeders; injectors. (*Boiler house 4, and Pump annex, Sec. 4, Col. 13.*)

653 Allen's Sons, Josiah J., Philadelphia, Pa.—Anti-lamina, for preventing and removing scale from boilers. D 76. 555

654 Stilwell & Bierce Manufacturing Co., Dayton, O.—Lime extracting heater and filter combined. Removes all impurities from feed-water for steam boilers; indispensable to an economical use of steam. D 80. 555

655 Richards, Jackson, Philadelphia, Pa.—Piston packing. D 69. 555

656 Waters, C., & Co., Boston, Mass.—Steam engine governors. D 74. 555

657 Buffalo Steam Gauge & Lantern Co., Buffalo, N. Y.—D 72.
a Steam gauges. 555
b Locomotive head light with patent burner, hand lantern. 576

658 Lehman, B. E., Bethlehem, Pa.—Gauge cocks, water gauges, oil cups, gate valves. D 70. 555

659 American Oil Cabinet Co., Boston, Mass.—Safety oil cabinets. D 72. 555

660*a* Vulcanized Fibre Co., Wilmington, Del.—Fish-bolt and carriage washers. D 65. 555

660*b* Brown, Aug. P., New York, N. Y.—Boiler fixture and engine governor. D 70. 555

660*c* McShane, Henry, & Co., Baltimore, Md.—Bells. (*Northeast tower.*) 555

660*d* Christoffel, T. B., Williamsburg, N. Y.—Tube cleaners and scrapers. D 66. 555

661 Utica Steam Gauge Co., Utica, N. Y.—Gauges, marine clocks, revolution counters, gauge testing apparatus. D 73. 555

662 Cleveland Steam Gauge Co., Cleveland, O.—Gauges, spring balances, test pump and gauge. D 72. 555

663 Aultman, Miller, & Co., Akron, O.—Self-registering dynamometer. D 68. 555

664 Davis & DuBois, Philadelphia, Pa.—Tallow cups for engines, etc. D 68. 555

665 Lynde, J. D., Philadelphia, Pa.—Governors, valves, feed water heaters, regulators and low water alarm combined. B 71, *and Boiler house 4.* 555

666 Union Water Meter Co., Worcester, Mass.—Water meters, steam gongs, governor valves, steam and water regulators. D 67. 555

667 Kline, Aaron K., Sommerville, N. J.—Governor for steam engines. D 69. 555

667*a* Burnet, William, Washington, D. C.—Lubricator. *Pump annex 8 and 9.* 555

667*b* Hetzel, Herman V., Philadelphia, Pa.—Speed indicator. B 73. 555

667*c* Chard & Howe, New York, N. Y.—Lubricating compound and cup. A 47. 555

667*d* Canfield Manufacturing Co., Philadelphia, Pa.—Steam and hydraulic stuffing-box packing, self-lubricating hempen fibre, gum core. D 68. 555

668 Haurey, Henry F., Newark, N. J.—Flue and tube brushes. D 69. 555

669 Jenkins, Wm. H., & Co., Philadelphia, Pa.—Boiler feeder, steam trap, damper regulator, low water alarm, safety valve, steam gauges. D 77. 555

670 Bibb, B. C., & Son, Baltimore, Md.—Fireplace heater. D 72. 555

671 Post & Co., Cincinnati, O.—Steam gauges. D 71. 555

672 Greenwich Machine Works, Greenwich, N. Y.—Horseshoe corking vise and bolt heading machine. A 37. 555

673 Tracy, Eliashib, Philadelphia, Pa.—Injector for boilers. D 68. 555

674 Clark, Rufus F., Philadelphia, Pa.—Cylinder oiler. E 69. 555

675 Lathrop Anti-friction Co., New York, N. Y.—Carbon composition machinery lubricator. D 68. 555

676 Asbestos Patent Fibre Co. (limited), Philadelphia, Pa.—Utilized fibre, paper, board; steam joints and packing, non-conducting pipe covering. D 69. 555

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13-15.

Motors and Appliances, Pumps.

677 Davis, J. B., Hartford, Conn.—Feed water heater and purifier. D 68. 555

678 Jasper, George F., Freeburg, Ill.—Heater and filter. D 78. 555

679 Brown, Fergus, & Co., Philadelphia, Pa.—Injector for steam boilers. (*In use in building.*) 555

680 Brown & Fergus, Philadelphia, Pa.—Steam injector for steam boilers. (*In building.*) D 68. 555

680*a* Metallic Art Works, Boston, Mass.—Plates and castings of bronze. C 71. 555

680*b* Jamison, Samuel S., Saltsburg, Pa.—Steam water-injector, car replacer, chimney top. B 64. 555

681 Le Van, W. Barnet, Philadelphia, Pa.—Steam engine governors, damper regulator, and furnace grate bars. D 70. 555

682 Willoughby, James D., Philadelphia, Pa.—Governor cut-off for steam engines. D 68 *and* 51, *and Pump annex.* 555

683 Woodruff, A. H., Lansing, Iowa.—Reverse and expansion gear for locomotives and propeller engines. D 69. 555

685 Newell, Wm. H., Philadelphia, Pa.—Injector valves. (*In building.*) 555

686 Allen, Stillman B., Boston, Mass.—Governor for steam engines. D 72. 555

686*a* Pickering, T. R., Portland, Conn.—Steam engine governors. C 74. 555

687 Osgood, Josiah A., Boston, Mass.—Crank pin oiler, metallic spring packing, etc. D 69. 555

688 McNab & Harlin Manufacturing Co., New York, N. Y.—Valves, cocks, whistles, water gauges, iron fittings, plumbers' materials. B 40. 555

689 Edson's Steam Recording Gauge Manufacturing Co., 91 Liberty street, New York, N. Y.—Gauges, electrical alarms, revolution counters. Sole makers of "Edson's Patent Recording Gauges" for steam or water, with or without the "time" attachment, or the "electrical alarm"; also "revolution counters," and "30-inch gauges." Reliable as "standards of pressure." Send for circulars. D 67. 555

690 Schutte & Goehring, Philadelphia, Pa.—Steam jet machinery, furnace blowers, ventilators, injectors, syphons, gas exhausters, condensers, etc. (*Pump annex.*) 555

690*a* Leonard, T. M., New York, N. Y.—Oil cup and dynamometer. B 52. 555

690*b* Miller, W. P., New York, N. Y.—Lubricant. D 52. 555

690*c* Pratt & Whitney Co., Hartford, Conn.—Automatic boiler-feeder and return steam trap. (*In use in Boiler houses.*) 555

690*d* Smith, Levi F., Philadelphia, Pa.—Low water indicators, lubricators, gauge, steam trap, blower, comb-wrench, car seat, etc. D 78. 555

691 Lonergan & McBride, Philadelphia, Pa.—Oil cups and lubricators. D 66. 555

692 Silver Lake Co., Boston, Mass.—Self-lubricating steam packing. D 68. 555

Hydraulic and Pneumatic Apparatus, Pumping, Hoisting, and Lifting.

693 Dart, Edward & Co., New York, N. Y.—Rotary pumps and engines, marine governors, cotton gins, presses, duplex plunger crank steam pump. (*Pump annex.*) 560

694 Cooper, Jones, & Cadbury, Philadelphia, Pa.—Pumps. B 19. 560

695 Silsby Manufacturing Co., Seneca Falls, N. Y.—Rotary steam pump. This firm also has two rotary steam fire engines and a hose cart on the Exhibition grounds, in charge of the Centennial fire brigade. Illustrated and descriptive circulars—English, Spanish, French, and German—may be had on application. A 4. 560

696 Valley Machine Co., Easthampton, Mass.—Bucket-plunger steam pumps. (*Pump annex.*) 560

697 Kelly, Wm. E., New Brunswick, N. J.—Steam pumps. (*Pump annex and Boiler house 3.*) 560

698 Aquometer Steam Pump Co., Philadelphia, Pa.—Steam pumps. (*Pump annex.*) 560

699 Hubbard & Aller, Brooklyn, N. Y.—Steam pumps. (*Pump annex.*) 560

700 Union Manufacturing Co., New Britain, Conn.—Iron and brass cistern; force, yard, drive well; garden engines, boiler, pumps, and rams. (*Pump annex.*) 560

700*a* Purvis, Edward, New York, N. Y.—Automatic steam valve. (*Pump annex 8-11.*) 560

700*b* Nichols, Harris & Walker, New London, Conn.—Acid pump and syphon. (*Pump annex 2-12.*) 560

700*c* Craig & Brevoort, New York, N. Y.—Condenser for steam pumps, steam engines, etc. (*Pump annex 2-12.*) 560

700*d* Hyneman, Isaac, Philadelphia, Pa.—Odorless excavating pump. (*Pump annex 1-5.*) 560

700*e* Le Page, W. N., Boston, Mass.—Force pumps. (*Pump annex 2-12.*) 560

700*f* Wood, Joseph, Red Bank, N. J.—Steam pump. E 69. 560

700*g* Hubbard, S. D., Pittsburg, Pa.—Steam pump. (*Boiler house 3.*) 560

700*h* Young, William, Easton, Pa.—Young's patent wrought iron, rubber-coated, brass cylinder lift and force pumps for deep wells and cisterns. Being made principally of wrought iron, are strong, light and durable. The cylinder and all the working parts are made of brass, works smooth, very durable, and will not rust the water as iron would. (*Pump annex 7-5.*) 560

701 Wiswall, H. M., Boston, Mass.—Rotary and oscillating pumps. (*Pump annex.*) 560

702 Norwalk Iron Works Co., South Norwalk, Conn.—Direct acting non-expansive steam pumps. C 76. 560

Pumps, Compressed-Air Engines.

703 La France Manufacturing Co., Elmira, N. Y.—P 11, *and Pump annex.*
a Rotary pumps and engine. 560
b Rotary steam fire engine. 564

704 Rumsey & Co. (limited), Seneca Falls, N. Y.—Pumps, hydraulic rams. B 45, *and Pump annex.* 560

705 Carr, Adam, New York, N. Y.—Direct action steam pumps; compound direct action pump; will save sixty per cent. in fuel and boilers; positive circulating steam radiators; noiseless friction hoisting engine; condensers for steam engines and pumps. (*Pump annex and Boiler house 4.*) 560

706 Douglas, W., & B., Middletown, Conn.—Pumps, hydraulic rams, pump chain, garden engines, curbs, chain pump fixtures; grindstone frame. (*Pump annex.*) 560

707 Vail & Wallace, Keokuk, Iowa.—Water elevator. (*Pump annex.*) 560

708 Mitchell, J. H., Philadelphia, Pa.—Deck pump for ship use. B 80. 560

709 Hooker, Wm. D., Dedham, Mass.—Direct acting steam pumps. (*Pump annex.*) 560

710 Chapman, Henry, Philadelphia, Pa.—Centrifugal hydro-extractor, for brewers' grains, etc. Kiln model. (*Pump annex 13.*) 560

710*a* Waring, J. B., Stamford, Conn.—Steam pump. (*Pump annex 12.*) 560

710*b* Toledo Pump Co., Toledo, O.—Wood pumps. (*Pump annex 5.*) 560

710*c* Hathorn, Davis, Campbell, & Davey, New York, N. Y.—Pump engine. C 3 *and* 4, *and Pump annex 27.* 560

710*d* Heold, Sisco & Co., Baldwinsville, N. Y.—Steam centrifugal pump and centrifugal pumps driven by belts. (*Pump annex.*) 560

711 Follensbee, Geo. S., Lewistown, Me.—Double propeller pump. (*Pump annex.*) 560

712 Grosvenor, J. A., Jersey City, N. J.—Pulsometer steam pump, operated by pressure of steam on surface of water. (*Pump annex.*) 560

713 Biggs, B. F., & Wells, La Fayette, Ind.—Wooden lifting and suction pump. (*Pump annex.*), 560

713*a* Ferrell & Jones, Philadelphia, Pa.—Combined steam pump and engine; centrifugal pump and yoke steam pump. (*Pump annex 8.*) 560

713*b* Matthewman & Johnson Pump Co., New Haven, Conn.—Excavating pump with deodorizing apparatus. (*Pump annex 12.*) 560

713*c* Blake, George F., Manufacturing Co., Boston, Mass.—Steam pump. (*Pump annex 8–9.*) 560

713*d* Eagle Odorless Excavating Co., Philadelphia, Pa.—Oderless excavator. (*Pump annex.*) 560

713*e* Roberts, E. A. L., Titusville, Pa.—Sand pump. C 78. 560

713*f* Crane Bros. Manufacturing Co., Chicago, Ill. (*Pump annex 7.*)
a Steam elevators and pumps. 560
b Hoisting engines and steam radiators. 563

714 King, Charles W., Boston, Mass.—Force pumps and house pumps with removable cylinders. (*Pump annex.*) 560

715 White, Clark, & Co., Baldwinsville, N. Y.—Centrifugal pump. (*Pump annex.*) 560

716 Poole & Hunt, Baltimore, Md.—Feed water heater and pump. C 79. 560

717 Willoughby, James D., Philadelphia, Pa.—Pulseless pulsometer. D 51 *and* 68, *and Pump annex.* 560

718 Bradley, J., & Co., Philadelphia, Pa. — Odorless excavating apparatus. (*Pump annex.*) 560

719 Gawthrop, A., & Son, Wilmington, Del.—Glass models of hydraulic rams with regulators, in operation. (*Pump annex.*) 560

720 Huffer, Abraham, Hagerstown, Md.—Automatic steam vacuum pump. (*Pump annex.*) 560

721 Pease, F. S., Buffalo, N. Y.—Pneumatic pump. (*Pump annex.*) 560

723 Bagley & Sewall, Watertown, N. Y.—Rotary metal force pump with self-packing joints, without stuffing-boxes or valves; pressure on working parts equalized; absolutely positive in action; volume of liquid discharged proportionate to power and speed applied. Specially adapted to use of paper makers, brewers, tanners, etc., and for fire protection. (*Pump annex.*) 560

724 Niagara Steam Pump Works, Brooklyn, N. Y.—Direct acting steam pump and crank pump. (*Pump annex.*) 560

725 Hydrostatic & Hydraulic Co., Philadelphia, Pa.—Shaw's compound propeller pumps for quarries, mines, etc. Propeller wheels secured to rotating shaft lifts from one thousand to one hundred thousand gallons per minute any height; has no valves, and is not liable to obstruction. Office, at Shaw's Engineering Depot, 915 Ridge avenue, Philadelphia, Pa. (*Pump annex.*) 560

726 Conde & Co., Philadelphia, Pa.—Steam pumping engine. (*Pump annex.*) 560

727 Nye, Gourlay, & Co., Chicago, Ill.—Steam vacuum pump. (*Pump annex.*) 560

730 Sluthour & Mintzer, Philadelphia, Pa.—(*Pump annex.*)
a Force and bilge hand pumps. 560
b Fire engines. 564

731 Albright & Stroh, Mauch Chunk, Pa.—B 19.
a Model of duplex steam pump. 560
b Fire-plugs. 566

732 Allison & Bannan, Port Carbon, Pa.—Improved air compressing engines. Correspondence and orders solicited. A 52. 561

732*a* Burleigh Rock Drill Co., Fitchburg, Mass.—Rock drilling machines, drill carriages, air compressor, tunelling and mining machines. A 51. 561

732*b* Taws & Hartman, Philadelphia, Pa.—Fittings for, and drawings of, blasting furnaces. B 20–21. 561

732*c* Union Rock Drill Co., New York, N. Y.—A 60.
a Air compressor. 561
b Hose couplings for rock drills. 564

733 Coffin & Woodward, Boston, Mass.—Main and bilge pump for vessels, force pump. D 39. 562

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

Hydraulic and Pneumatic Machines, Elevators.

734 Roots, P. H. & F. M., Connersville, Ind.—Rotary pressure blowers, hand blowers, gas exhauster. Patentees and manufacturers of positive blast rotary blowers, and gas exhausters, adapted to all purposes for which blast or exhaust are required; also of improved Bye passes and gas valves. (*Pump annex.*) 562

734*a* Patterson, C. R., Pittston, Pa.—Suction and blast fan. B 61. 562

734*b* Gould's Manufacturing Co., Seneca Falls, N. Y., New York office 15 Park Place.—Iron and brass force and lift pumps, rotary pumps, ship, railroad, mine, and quarry pumps, hydraulic rams, garden and fire engines. A very elaborate exhibit. (*Pump annex 8 and 10.*) 564

735 Ferris & Miles, Philadelphia, Pa.—Blowing engine, steam hammer, and steam drop. (*Annex 1.*) 562

736 Wilbraham, T., & Bros., Philadelphia, Pa.—Pressure blowers and steam engines, gas exhausters and steam engines. (*Pump annex.*) 562

737 Morris Co., I. P., Philadelphia, Pa.—Blowing engine—ten thousand seven hundred and forty cubic feet of air per minute. B 48. 562

738 Roddey, P. D., & Co., New York, N. Y.—Ship ventilator, fog alarm, bilge pump. (*Pump annex.*) 562

740 Murphy, Francis, Streator, Ill.—Ventilating apparatus for mines, tunnels, steamboats, etc. (*Pump annex.*) 562

741 Disston, Thomas S., Philadelphia, Pa.—Rotary pressure blower. (*Pump annex.*) 562

742 Sturtevant, B. F., Boston, Mass.—Pressure and fan blower. *Pump annex 10–9.* 562

743 Chase, F. D., Boston, Mass.—Patent ventilating ship deck irons, in brass composition, and galvanized iron; intended for vessel decks, steam car roofs, etc. Seven sizes; flues, from four to nine inches in diameter. Patented, June 23, 1863, improved 1875. (*Pump annex.*) 562

744 Wemner, P. L., Lebanon, Pa.—Blowing engine. B 69. 562

745 Exeter Machine Works, Boston, Mass.—Pressure blowers, fan blowers, and exhaust fans. (*Pump annex.*) 562

745*a* Boston Piston Meter Co., Boston, Mass.—Fluid meter. (*Pump annex 2–3.*) 563

746 Howard, George C., 13¼ South Eighteenth street, Philadelphia, Pa.—Hoisting machine; screw gear runs in a bath of oil; patent stop brake, belt shifter, pulleys self-oiling, on independent bearings, car for any location. Elevators made with double and single engines. B 31. 563

747 Gunpowder Pile Driver Co., Philadelphia, Pa.—Pile driver. (*Outside of building.*) 563

748 Ruoff, William, Philadelphia, Pa.—Double and single-geared jack screws, for moving and raising stone and all heavy weights. (*Pump annex.*) 563

749 Stewart, Ralph, & Co., Philadelphia, Pa.—Packing machines. D 23. 563

750 Eccles, James, Philadelphia, Pa.—Quadruple screw-power press, pivot centre for drawbridge, etc. D 60. 563

751 Sternberger, Leopold, Philadelphia, Pa.—Safety screw steam platform elevator. Patent right for sale. Address Jas. W. Rowley, 1511 North Twentieth street, Philadelphia. E 76. 563

751*a* Pennypacker, Matthias, Philadelphia, Pa.—Hand hoisting machine. (*Pump annex 1.*) 563

752 Harrison, W. H., Philadelphia, Pa.—Double-acting two-valve pump and hydraulic elevator. (*Pump annex.*) 563

753 Pneumatic Despatch Co., New York, N. Y.—Pneumatic tube. (*Outside of building.*) 563

754 Bolen, Crane, & Co., Newark, N. J.—Compound hydraulic press. (*Pump annex.*) 563

755 Eagle Meter Co., New York, N. Y.—Water meter. (*Pump annex.*) 563

756 Archbold, Samuel, 417 Walnut street, Philadelphia, Pa.—Marsland's liquid meter, for measuring water and other fluids. Of the turbine wheel form; has only one moving part, besides the register; is not at all affected by sand or silt passing through it; no friction, no wear—hence great durability; readily understood and easily operated. Manufactured by the American Meter Co., Philadelphia. (*Pump annex.*) 563

757 Dudgeon, Richard, New York, N. Y.—Hydraulic jacks, pullers, and expanders. C 27. 563

758 Taylor, John F., Charleston, S. C.—Steam and hydraulic cotton press. C 54–56. 563

759 National Meter Co., New York, N. Y.—Water meters. C 27. 563

759*a* Baily & Co., Faxcroft, Me.—Elevator for raising rocks, etc. (*Adjoining Annex 3.*) 563

759*b* United States Hoisting & Conveying Co., New York, N. Y.—Automatic machinery for hoisting, conveying, and depositing. (*Outside of Machinery Hall.*) 563

759*c* Higgins, H. Van, Chicago, Ill.—Water meter; oscillating piston meter. (*Pump annex 1.*) 663

759*d* Carlile & Elliott, Steubenville, O.—Safety lock for elevators. (*Pump annex 1.*) 563

760 Guerin, Thomas, San Francisco, Cal.—Instrument for measuring and regulating the flow of water from reservoir or canal. (*Pump annex 1–2.*) 563

761 Mason, Volney W., & Co., Providence, R. I.—Elevator hoisting machine and safety platform. Also, friction clutch pulleys, driving main line of shafting in pump annex and in Machinery Hall adjoining, near Corliss engine. D 66, *and Pump annex.* 563

762 Williams, S. S., & Co., Philadelphia, Pa.—Hod elevator. (*Pump annex.*) 563

763 Goldmark, Joseph, New York, N. Y.—Safety elevators for hotels, dwellings, and warehouses, operated by steam, water, or hand power. These elevators are absolutely safe, by virtue of the mechanical principles underlaying their construction; they, therefore, require no safety appliances whatsoever, beyond a common break. They are run in private resi-

Hydraulic Machines, Fire Engines and Appliances.

dences by water pressure, at an expense of less than half a cent for a round trip, and are used by women and children without requiring a special attendant. A 40. 563

763*a* **Remington, E., & Sons, Ilion, N. Y.**—Water meter. (*Pump annex 1.*) 563

764 Robertson, John, & Co., Brooklyn, N. Y.—Hydraulic pumps, hydraulic presses. (*Pump annex.*) 563

765 Ross, Thos., Rutland, Vt.—Steam crane. (*Annex 2.*) 563

766 Randall, Francis M., New York, N. Y.—Automatic steam and vacuum pump. (*Pump annex.*) 563

766*a* **Maclay, J. W., New York, N. Y.**—Water meter. (*Pump annex 1.*) 563

766*b* **Ritter, J. R., Reading, Pa.**—Model of hoisting apparatus. (*Pump annex 5.*) 563

767 Jones & Holmes, Providence, R. I.—Water elevators for open wells. (*Outside of building.*) 563

768 Bates, James, Baltimore, Md.—Hand elevator. (*Pump annex.*) 563

769 Yale Lock Manufacturing Co., Stamford, Conn.—Safety hoisting machinery, friction clutches and brakes, differential pulleys, drilling braces, stud end cutter. C 78. (*Outside.*) 563

770 Foulds, Thomas, jr., Trevorton, Pa.—Water elevator. (*Pump annex.*) 563

773 Otis Bros. & Co., 348 Broadway, New York, N. Y.—Passenger elevator, including engine, safety drum, etc. Manufacturers of brewery elevators, which are generally in use and with great satisfaction in many of the large breweries throughout the country. Their specialty in this line is the elevators, including independent hoisting engine, safety platform, with galvanized iron work, to prevent rust, with lifting ropes and safety ratchets, etc. B 38. 563

774 Leonard & Silliman, Bridgeport, Conn.—Grain elevator. E 56. 563

774*a* **Sweetland, I. B., Pontiac, Mich.**
a Brick and mortar elevator. (*Annex 3.*) 563
b Self-packing faucet, rubber packing. (*Annex 3.*) 566

775 Desper, W. E., & Co., Worcester, Mass.—Water meters. (*Pump annex.*) 563

776 Tatham & Bros., New York, N. Y.—B 21.
a Safety apparatus for hoisting machines. 563
b Drop and buck shot, lead and tin-lined lead pipe, tin-lined iron pipe, sheet lead. 566

777 Silsby Manufacturing Co., Seneca Falls, N. Y.—Rotary steam fire engines, horse hose carriage and hand hose reel. Also, in charge of the Centennial Fire Brigade, two rotary steam fire engines and horse hose cart. Illustrated and descriptive circulars, English, Spanish, French, and German, may be had on application. A 6. 564

778 Street, E. A., New York, N. Y.—Portable fire pump. B 45. 564

778*a* **Halloway, Charles T., Baltimore, Md.**—Chemical self-acting fire engine; portable fire extinguisher. A 40. 564

778*b* **Birkinbine, H. P. M., Philadelphia, Pa.**—Apparatus for operating hydraulic valves at a distance. B 46. 564

778*c* **Fairbrother, H. L., & Co., Pawtucket, R. I.**—Leather belting. D 9, 72. 564

778*d* **Babson & Dwight, New York, N. Y.**—Self-regulating fire-escapes. (*West end of Machinery Hall, opposite column 82.* 564

778*e* **Heywood, C. L., & Co., Boston, Mass.**—Iron safety folding fire-escape ladder. B 68. 564

779 Straw, E. A., Manchester, N. H.—Steam fire engine. (*In use on grounds.*) 564

780 Schanz, C., Philadelphia, Pa.—Hook and ladder truck for firemen. B 54–56. 564

780*a* **Falk, Louis, New York, N. Y.**—Portable fire escape. A 5. 564

780*b* **Wilson, W. H., New York, N. Y.**—Firemen's hats and helmets. B 62. 564

781 Champion Fire Extinguishing Co., Louisville, Ky.—Chemical engines, with hook, ladder, and hose attachments, hand fire extinguishers. B 56. 564

782 Babcock Manufacturing Co., New York, N. Y.—Chemical engines, hook and ladder trucks, truck and engine combined, fire extinguishers. B 57–60. 564

783 Platt, Wm. K., & Co., Philadelphia, Pa.—Fire extinguishers. B 49. 564

784 Vose, Wm. T., Boston, Mass.—Hydropult, for extinguishing fires, washing and watering purposes. A 4. 564

784*a* **Eureka Fire Hose Co., New York,** N. Y.—Seamless cotton and linen fire hose. E 68. 564

784*b* **Gutta-Percha & Rubber Manufacturing Co., New York, N. Y.**—Rubber belting, hose, and packing. B 44. 564

785 Spawn, A. F., & Co., New York, N. Y.—Chemical fire engines, hose carriage, hook and ladder truck, firemen's supplies. B 64–66. 564

787 Nichols, B. S., & Co., Burlington, Vt.—Steam fire engine. (*Pump annex.*) 564

788 Gomersall, Alfred, Philadelphia, Pa.—Engines, pumps, model of hose carriage. C 79. 564

789 Greer, Samuel Y., Philadelphia, Pa.—Hand hose carriage, leather fire hose, leather fire buckets. B 50. 564

791 Rumsey & Co. (limited), Seneca Falls, N. Y.—Hand fire engine. B 45. 564

794 Dennisson, J. N., Newark, N. J.—Steam fire engine, portable waterworks. B 48. 564

795 Lamm, John, Port Deposit, Md.—Fire extinguisher. Permanent for dwellings, factories, etc.; useful to gardeners. Rights for sale by patentee. B 66. 564

796 Lindlaw, John E., New York, N. Y.—Fire escape. B 56. 564

797 Holmes, Horatio L., Providence, R. I.—Cap-bar and stand, combination tool post, with samples of work. (*Pump annex 1-5.*) 564

798 Daniels, T. E., Detroit, Mich.—Fire escape and ladder. (*Annex.*) 564

799 Wannalansett Manufacturing Co., Boston, Mass.—Linen fire hose, hose reels, pipes, couplings, etc. Ross Turner & Co., selling agents, 159 Devonshire street, Boston, Mass. A 41. 564

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

Hydraulic and Pneumatic Machines and Appliances.

800 Clapp & Jones Manufacturing Co., Hudson, N. Y.—Piston steam fire engines. B 62. 564

801 Button, L., & Son, Waterford, N. Y.—Steam hand and fire engine. B 42-43. 564

802 Zwietusch, Otto, Milwaukee, Wis.—B 25.
a Chemical fire extinguisher. 564
b Soda-water apparatus, beer preserver, etc. 565

803 Lippincott, Charles, & Co., Philadelphia, Pa.—Apparatus for manufacturing and dispensing soda-water and other aerated beverages. A 27, D 3, *and* B 61. 565

804 Bates, Benjamin, Baltimore, Md.—Copper and silver carbonaters, with attachments. A 20. 565

806 Matthews, John, New York, N. Y.—Apparatus for making, bottling, and dispensing soda-water and aerated beverages. A 24. 565

807 Puffer, A. D., Boston, Mass.—Beer apparatus, soda, syrup and mineral-water apparatus. A 22. 565

808 Postens, Edward, Philadelphia, Pa.—Soda water and aerated beverages in bottles; apparatus and accessories. A 25. 565

809 Tufts, James W., Boston, Mass.—Soda water apparatus, generators, fountains, tumbler washers, etc. A 19 *and* B 23. 565

810 Chapman & Co., Madison, Ind.—Portable soda fountain. A 28. 565

811 Fergus, James, & David, Philadelphia, Pa.—Machine for bottling and corking liquors. A 22. 565

812 Hey, Michael, Philadelphia, Pa.—Beer pump, with bar fixtures, water pressure machine, beer cooler, air bung and regulator. Manufacturer of all kinds of beer pump bar fixtures, patent water pressure machine, patent beer coolers, patent air bung and patent air regulator, and all kinds of beer spigots and coupling, etc. E 68. 565

813 Lalance & Grosjean Manufacturing Co., New York, N. Y.—Seamless soda water fountains. A 21. 565

814 Morris, Tasker, & Co., Philadelphia, Pa.—Wrought iron tubes, tools, and brass work. A 70, *and* C 27. 566

815 Kirk, Geo. R., Philadelphia, Pa.—Patent regulating cylinder lubricator, with gauge showing contents, brass cocks, and valves. B 19–20. 566

815*a* Carpenter, J. M., Pawtucket, R. I.—Machinists' and blacksmiths' taps, pipe fitters' dies, and die stocks. Hill, Clarke & Co., selling agents, Boston, Mass. C 38-40. 566

815*b* Birkinbine, John, Philadelphia, Pa.—Fire hydrant and case. B 46. 566

815*c* Powell, Wm., & Co., Cincinnati, O.—Valves and lubricators. B 22. 566

815*d* Talley, James, jr., Kansas City, Mo.—Liquid faucet, automatic bung. B 29. 566

815*e* Powell, Wm., & Co., Cincinnati, O.—Regrinding globe valves; automatic lubricators, etc. B 22. 566

816 Woodruff & Beaumont, Kankakee City, Ill.—Stop valve. B 19. 566

817 Flower, James, & Bro., Detroit, Mich.—Stop valve, fire hydrant, machine for squaring nuts, oil cups. D 20. 566

818 Evans, Dalzell, & Co., Pittsburg, Pa.—Boiler, oil-well, radiator, artesian and hydraulic tubing; wrought iron pipe, coils, sockets, nipples, and fancy designs. B 25. 566

818*a* Basshor, Thos. C., & Co., Baltimore, Md.—Automatic relief valve for steam fire engines. A 6. 566.

818*b* Porter, Charles E., Washington, D. C.—Fountain nozzle—prevents clogging. B 19. 566

819 Warren Foundry & Machine Co., Phillipsburg, N. J.—Gas and water pipe. (*Outside of Machinery Building.*) 566

820 Mohawk & Hudson Manufacturing Co., Waterford, N. Y.—Straightway valves, garden hydrants, fire hydrants. B 21. 566

822 Bridgewater Iron Co., Bridgewater, Mass.—Forgings, seamless copper and brass tubes, and bolts, chilled soft rolls, spikes, roll plates, metal sheathing, etc. B 22–23. 566

823 Gloucester Iron Works, Philadelphia, Pa.—Cast iron pipes, fire hydrants, stop valves, and lamp posts. B 26. 566

825 National Tube Works Co., Boston, Mass.—Iron boiler tubes, iron hydraulic, steam, gas, water, and sewage pipes, enameled pipe, injector. E 74, *and* D 10. 566

826 Meyer, Henry C., & Co., New York, N. Y.—Faucets, anti-freezing hydrants, street washers, combined hitch post and street washer. B 27. 566

827 Crosby Steam Gauge & Valve Co., Boston, Mass.—Steam gauges and safety valves, hydraulic and vacuum gauges, etc. D 67. 566

827*a* Wood, R. D., & Co., Philadelphia, Pa.—Hydrant. (*Pump annex 4-9.*) 566

827*b* Shedd, J. Herbert, Providence, R. I.—Hydrant box, taps, stops, gates, cover and valve. C 27, *and Pump annex 4.* 566

827*c* Douglas, W. & B., Middletown, Conn.—Pumps, hydraulic rams, garden engines, etc. (*Pump annex.*) 566

827*d* American Tube Works, Boston, Mass.—Brass and copper tubes. B 20-21. 566

828 Cook & Pulver, New York, N. Y.—Lubricating cups, and lubricating compound. D 69. 566

829 Pect Valve Co., Boston, Mass.—Brass and iron steam valves. B 22. 566

830 Merrill & Keizer, Baltimore, Md.—Gauge cocks for steam boilers. D 64. 566

831 Wood, R. D., & Co., Philadelphia, Pa.—Fire hydrants, cast iron pipe, Eddy valves, lamp posts, turbine wheels, duplex turbine. Cast iron pipe for gas and water from one and a half to seventy-two inches diameter. Fire hydrants; Mathew's patent anti-freezing sliding frost case; waste opened by positive motion, without springs, weights, or levers. All working parts removable from ground without dig-

For location of objects, indicated by letter and figure, see Key to Notation, p. 10; ground plan, p. 11.

THE SUN NEWSPAPER

Is printed and published every day in the year, at 166, 168, and 170 Nassau Street, New York City. Its regular edition on secular days now (April, 1876) averages about **140,000**; its weekly edition over **88,000**; and its Sunday issue is nearly **100,000.** It thus prints and sells more than a million copies a week, which are read all over the United States. This is a circulation unprecedented in American journalism, and it is constantly on the increase In proof of this, let the following figures testify. They show the number of copies of THE SUN printed every week during the year ending March 11, 1876.

WEEK ENDING		COPIES PRINTED.	WEEK ENDING		COPIES PRINTED.
March	20	849,382	September	18	860,358
	27	845,802		25	858,778
April	3	857,956	October	2	863,935
	10	863,556		9	870,820.
	17	855,076		16	878,082
	24	858,270		23	874,625
May	1	869,542		30	876,160
	8	867,550	November	6	908,580
	15	877,450		13	852,372
	22	874,946		20	847,815
	29	866,276		27	836,248
June	5	873,782	December	4	845,378
	12	869,769		11	1,042,716
	19	880,348		18	956,294
	26	883,846		25	933,864
July	3	898,862	January	1	933,987
	10	867,574		8	952,201
	17	877,400		15	953,019
	24	876,282		22	969,910
	31	874,216		29	967,850
August	7	865,558	February	5	993,030
	14	875,982		12	1,024,647
	21	880,488		19	1,027,209
	28	870,502		26	1,014,766
September	4	872,211	March	4	1,014,993
	11	860,755		11	1,028,951
TOTAL		46,799,769			

In printing these papers, no less than three million four hundred and twenty-six thousand six hundred and ten (3,426,610) pounds of paper were consumed.

ADVERTISING RATES.

DAILY AND SUNDAY, 40 cents a line, ordinary advertising; large type, 80 cents; and preferred positions, 50 cents to $2.50, according to classification.

WEEKLY, 50 cents a line; no extra charge for large type. Preferred positions, from 75 cents to $2.00.

SUBSCRIPTION RATES.

DAILY (4 pages), by mail, **55c.** a month, or **$6.50** a year, postpaid; with Sunday edition, **$7.70.**

SUNDAY (8 pages), **$1.20** per year, postpaid.

WEEKLY (8 pages), **$1.20** per year, postpaid.

Address, THE SUN,

New York.

THE

American Newspaper Union.

A. J. AIKENS, President.

New York Newspaper Union, 148 and 150 Worth St., New York.	315	Newspapers,	$3.00	per line,	per week.
Chicago Newspaper Union, 114 Monroe St., Chicago.	350	"	$3.50	"	"
Milwaukee Newspaper Union, 365 East Water St., Milwaukee.	120	"	$1.25	"	"
Aikens Newspaper Union, 143 Race St., Cincinnati.	200	"	$2.00	"	"
Southern Newspaper Union, 227 Second St., Memphis, Tenn.	145	"	$1.50	"	"
St. Paul Newspaper Union, 17 Wabashaw St., St. Paul, Minn.	73	"	$ .75	"	"

THE ORIGIN OF CO-OPERATIVE NEWSPAPER ADVERTISING.

Co-operative newspaper printing, as now practised, originated in Wisconsin twelve years ago. It is termed *co-operative* for the reason that one side of each of the newspapers is printed at a central office, and the paper sent in its half-printed state to the home office, where it is completed with editorials, local news, and other matter prepared by the editor or publisher. In December, 1846, the idea of co-operation, *with advertisements*, occurred to Mr. Aikens, while yet serving his time as an apprentice, in printing the message of President Polk on one side of a country newspaper of New England at Boston, and the other half being printed at the local office.

Mr. A. J. Aikens, a practical printer and business man, conceived the idea of reducing the cost of ready-printed paper, as it is now termed, to country publishers, by making an agreement with them to use a certain space in each of their papers for advertisements that he might procure. This plan of co-operation he put into practice twelve years ago, at the office of Cramer, Aikens & Cramer, Milwaukee. It at once became successful, leading to the establishment of co-operative newspaper printing-offices in Chicago, New York, St. Louis, Cincinnati, Memphis, St. Paul, and other places. There are now over two thousand newspapers printed upon the co-operative plan in the United States and Canadas, and the number is constantly increasing, it having more than doubled in the last five years. The enterprise is no longer an experiment, but an established success, and the system is one yielding manifold advantages to advertisers as well as to local publishers.

The American Newspaper Union

Is essentially national. The papers represented in it are located in all the States of the Union and in nearly five hundred county seats. They circulate over the whole area of the country from Maine to Colorado, distributing at least *one hundred copies every year to each square mile of the settled portions of the United States.*

Although, as a whole, the Union List is national, covering all sections, it is so made up of different members as to be susceptible of easy division into sections—East, Middle, West, South. The distribution of the papers is as follows:

New England	78	Illinois	117	Nebraska	15
New York	101	Michigan	86	Missouri	17
New Jersey	27	Wisconsin	98	Georgia	10
Pennsylvania	65	Tennessee	29	Alabama	32
Virginia	24	Kentucky	29	Louisiana	11
No. and So. Carolina	24	Minnesota	79	Mississippi	29
Ohio	122	Iowa	85	Other States	46
Indiana	81				

AGGREGATE CIRCULATION.

The circulation of these papers is large and constantly increasing. It is larger than the circulation of any other lists or combinations of country papers in the United States—the last aggregate weekly circulation being *seven hundred thousand seven hundred and thirty copies* (700,730).

SEND TO EITHER OFFICE FOR A CIRCULAR.

Machinery Fittings, Valves, Tubes, etc., Locomotives.

ging. Valves; Eddy's patent straight way double gated gates, hung on universal joint; perfectly adjustable duplex turbine so arranged as to develop full power from variable quantities of water; lampposts; turbines; heavy machinery. B 18, *and Pump annex.* 566

832 Roots, P. H. & F. M., Connersville, Ind.—Tuyere irons and fire bed, bye pass, gas valves. Patentees and manufacturers of hand blowers for blacksmithing of all kinds; also, portable forges adapted to every variety of work; also, improved Tuyere iron and fire bed combined. (*Pump annex.*) 566

833 Allison, W. C., & Sons, Philadelphia, Pa.—Boiler tubes, oil-well tubing, steam pipe, rivets, bolts, nuts, washers, carriage bolts, forgings. B 24. 566

834 Cooper, Jones, & Cadbury, Philadelphia, Pa.—Supplies for plumbers, steam fitters, and machinists, etc. B 19. 566

835 Merchant & Co., Philadelphia, Pa.—Seamless brass and copper tubes, sheet and planished copper, brass wire and tubing, tin plates. B 19. 566

836 Patent Water & Gas Pipe Co., Jersey City, N. J.—Wrought iron asphaltee cement water pipe. B 22. 566

837 Flagg, Stanley G., & Co., Philadelphia, Pa.—Fittings for gas, steam, and water pipes. A 41. 566

838 Ludlow Valve Manufacturing Co., Troy, N. Y.—Sliding stop valves for water, gas, and steam, fire hydrants, etc. B 26. 566

839 Lunkenheimer, Fred., Cincinnati, O.—Automatic cylinder lubricators and glass oil-cups for steam engines; steam valves, with regrinding device; untrimmed brass castings. B 21 *and* 22. 566

840 Stileman, R. T. H., Philadelphia, Pa.—Water gates, fire hydrants, and station valves. B 19 *and* 20. 566

842 Lewistown Brass & Engine Co., Lewistown, Pa.—Brass goods. C 74. 566

843 Walworth Manufacturing Co., Boston, Mass.—Steam heating apparatus; steam and gas fitters' tools, etc.; laundry apparatus, etc.; pipe and fittings for steam, gas, and water. A 76, E 73 *and* B 41. 566

844 Radde, William, 548 Pearl street, New York, N. Y.—Patent glass-lined iron pipe; keeps water, chemicals, and all liquids perfectly pure; prevents poisoning by metallic water pipes; is a safe pipe for aquaria; resists frost, and gives full satisfaction. Patent underground telegraph system; secures perfectly reliable telegraphic connections, under all circumstances, and, thereby, life and property; is composed entirely of inorganic substances. Naked copper wires are drawn through very small glass tubes (3 to 18 and upwards), which are held in the required position in an iron pipe by paraffine wax. Both articles are cheap; need no repairs. B 3–20. 566

845 Chapman Valve Manufacturing Co., Boston, Mass.—Water, gas, and steam valves, with Babbitt metal seats. B 33-34. 566

846 Jarecki Manufacturing Co., Erie, Pa.—Brass work for steam, gas, water, oil, and iron fittings, adjustable pipe tongs. B 20–21. 566

847 Starr, Jesse W., & Son, Camden, N. J.—Castings for gas and water, lamp posts, fire hydrants, stop valves, etc. (*Outside of building.*) 566

848 Colwell Lead Co., New York, N. Y.—Lead pipe, sheet lead, block tin pipe, tin-lined lead pipe. B 22–23. 566

849 Long Dennis, & Co., Louisville, Ky.—Cast iron gas and water pipes. Have in operation three foundries, with melting and casting capacity of 200 tons daily; supply the gas and water mains for the principal cities and towns west, north, and south. B 20–21. 566

849*a* Warren Foundry & Machine Co., Phillipsburg, N. J.—Cast iron water pipe. (*In building near Machinery Hall.*) 566

849*b* Peck Bros., & Co., New Haven, Conn.—Brass-plated cocks, valves, and fittings for plumbers', gas and steam fitters' use. A 40. 566

850 Larlwig & Batten, New York, N. Y.—Champagne freezer. B 21. 566

851 O'Neill, Andrew, Ansonia, Conn.—Cast iron pipe; patent gas and water mains, jointing without hot lead, a saving of 50 per cent. over the old; O'Neill's patent-planished copper and brass, tinned or nickeled; nickeled sheet zinc and yellow metal couplings for soil or surface and telegraph pipes. B 3-22, *and outside.* 566

852 Mills, Thomas, & Bro., Philadelphia, Pa.—Vertical engine and ice cream freezer combined, ice cream freezers and freezing apparatus. E 65. 568

853 Knickerbocker Ice Co., Philadelphia, Pa.—Ice tools, elevators, wagons, and ice machinery. B 18. 568

Railway Plant, Rolling Stock, and Apparatus.

855 Burnham, Parry, Williams, & Co., Philadelphia, Pa.—Locomotives. E 41–43, *and* E 45. 570

855*a* Rhode Island Locomotive Works, Providence, R. I.—Passenger locomotive engine; photographs of locomotives. E 46. 570

855*b* Brooks' Locomotive Works, Dunkirk, N. Y.—Narrow-gauge locomotive. (*West End Passenger R. R.*) 570

856 Pease, James H., Reading, Pa.—Historical chart of inventions and improvements of the locomotive and railway system. E 71. 570

857 Rogers Locomotive & Machine Works, Paterson, N. J.—Locomotive engine, and tender. D 41, 42, 43. 570

858 Danforth Locomotive & Machine Co., Paterson, N. J.—Locomotives. D 28 *and* 41. 570

859 Howe, Henry, Council Bluffs, Iowa.—Apparatus for supplying locomotives with water. D 68. 570

859*a* Dickson Manufacturing Co., Scranton, Pa.—Portion of the Stonebridge Lion locomotive. C 27. 570

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

859*b* Polytechnic College, Philadelphia, Pa.—Working model compressed locomotive with horizontal grip drivers for ascending planes. E 44. 570

859*c* Robinetz, James F., Petersburg, Va.—Model locomotive. (*Empire Transportation Co.'s building.*) 570

860 Rowand, John R., Philadelphia, Pa.—Locomotive-power brake. For the safety of life, in collisions, through the crushing of coal, in the ends of the platforms of locomotives. E 48. 570

861 Porter, Bell, & Co., Pittsburg, Pa.—Narrow-gauge passenger locomotive and tender. Exclusive specialty light locomotives. Catalogues sent on application. E 44–46. 570

863 Philadelphia & Reading Railroad Co., Philadelphia, Pa.—Locomotive and tender. D 44–47. 570

864 Dickson Manufacturing Co., Scranton, Pa.—Locomotive and mining machinery. E 49–53. 570

865 Pennsylvania Railroad Co., Altoona, Pa.—Locomotive built in 1831, baggage and passenger car combined (old style). (*Outside of building.*) 570

866 Mason Machine Works, Taunton, Mass.—Narrow gauge locomotive. (*In use on West End Railroad.*) 571

866*a* Johnson, Chas. E., & Co., Lansing, Iowa.—Self-coupling railway car. F 35. 571

866*b* Lebanon Manufacturing Co., Lebanon, Pa.—Coal cars. (*Outdoors, west of Machinery Hall.*) 571

867 Richie Bros., Philadelphia, Pa.—Scales, testing machines, beams, rope-twisters, sand-sifters. E 54. 571

868 Fairbanks & Ewing, 715 Chestnut street, Philadelphia, Pa. (Manufacturers, E. & T. Fairbanks & Co., St. Johnsbury, Vt.)—Railroad track, weigh lock, hay, coal, platform, and counter scales of all descriptions; fine gold and druggists' scales; also improved testing machines for ascertaining the strength of metals, etc. Principal warehouses, Boston, New York, Philadelphia, Baltimore, New Orleans, San Francisco, St. Louis, Chicago, Louisville, Cincinnati, Cleveland, Buffalo, Pittsburg, Albany, Montreal, and London, England. E 56–60. 571

869 Brandon Manufacturing Co., Brandon, Vt.—Railroad, merchandise, post-office, and other scales, beams and trucks. E 61–63, *and* D 8. 571

870 Dell, John C., Philadelphia, Pa.—Scales and weights. D 62. 571

871 Buffalo Scale Co., Buffalo, N. Y.—Platform, counter, and combination beam scales. D 54. 571

872 Crossman, M., Marshall, Ill.—Hand car. (*Outside of Machinery Hall.*) 571

873 Becker & Sons, 232 E. 128th street, New York, N. Y.—Becker's construction of improved balances and weights of precision for druggists, chemists, assayers, and for all purposes where accuracy is required. D 51. 571

874 Meyers, F., Newark, N. J.—Scales. D 53. 571

875 Hitchcock, S. S., Des Moines, Iowa.—Scales. D 47. 571

877 Gilly, John L., Columbus, O.—Freight cars; car wheels. (*West of Machinery Hall.*) 571

878 Ball, C. A., & Co., Midland Park, N. J.—Trucks. C 9–71. 571

879 Willoughby, James D., Philadelphia, Pa.—Notifying scales, frictionless scales. D 8 *and* 51. 571

880 Chatillon, John, & Sons, New York, N. Y.—Spring balances, self-adjusting scales, counter scales, scale beams. D 50. 571

881 Harrisburg Car Manufacturing Co., Harrisburg, Pa.—Eight-wheeled box freight cars. B 1–9, *and* A 5–9. 571

883 Price, Lipsett, & Co., Philadelphia, Pa.—Railroad track scale, platform scales. E 76. 571

885 Robidoux, Joseph, & Sons, New York, N. Y.—Scale beams, frames, hooks, etc. D 49. 571

886 Steinway & Sons, New York, N. Y.—Metal frames for pianofortes, pianoforte actions. D 49. 571

887 Automatic Scale Co., Boston, Mass.—Automatic scales. D 51. 571

888 Reinhardt, Chas., Brooklyn, N. Y.—Druggists', gold, and diamond scales. D 62. 571

889 Henderson Hydraulic Car Brake Co., Philadelphia, Pa.—Car brake, by steam or hydraulic pressure. D 64–66. 572

889*a* Singer, Jacob, Harrisburg, Pa.—Automatic car coupler; brakeshoe. E 72. 572

889*b* Welch, Robert R., Frankford, Pa.—Automatic car coupler. E 74. 572

890 Lahaye, J. J., Reading, Pa.—Model cars with automatic couplings. In successful operation on the Philadelphia & Reading Railroad, by which company it was adopted after more than a year's trial. D 64. 572

891 Barton, C. S., Philadelphia, Pa.—Railway station indicator, operated from engine by compressed air or by hand. D 64. 572

892 Haase, John A., Philadelphia Pa.—Model of safety car-step. B 41. 572

892*a* Eames Vacuum Brake Co., Watertown, N. Y.—Injector, valve, vacuum, brake, etc. D 69. 572

892*b* Decrow, A. W., Bangor, Me.—Smoke conductor; railroad concussion brake. E 69. 572

894 Kline, Aaron K., Somerville, N. J.—Model of car coupling. D 69. 572

895 Nelson, Nels, Minneapolis, Minn.—Steam and air car brake, car coupler. D 65. 572

896 Bing, James, Philadelphia, Pa.—Brake shoe. E 76–77. 572

897 Westinghouse Air Brake Co., Pittsburg, Pa.—Automatic brakes, vacuum brakes, air compressors, speed indicators, engine governors, engine. D 67. 572

898 Cobb, Z., & Sons, Wilmington, Del.—Elliptic steel springs, for car seats and upholsterers, door springs. E 68. 573

899 Cayuta Wheel & Foundry Co., Waverly, N. Y.—Chilled wheels for cars and engines; specimens and tests. E 64. 573

900 Lobdell Car Wheel Co., Wilmington, Del.—New and old railroad car wheels, tires, castings, etc. E 65. 573

901 Ramapo Wheel & Foundry Co., Ramapo, N. Y.—Railroad car and engine wheels. E 71. 573

902 Culmer Spring Co., Pittsburg, Pa.—Springs for railway purposes. Spiral draft, bolster, journal, equalizing bar, tender, brake release, switch, and valve springs. Spiral springs of all descriptions, made to order. E 69. 573

903 Bryant, George B., Pottsville, Pa.—Self-oiling car wheels, loose pulleys, cups, car journals; vehicle and carriage wheel hubs; independent car axles. E 66. 573

904 French, A., & Co., Pittsburg, Pa.—Elliptic springs for cars and locomotives. E 71. 573

905 Miltimore Car Axle Co., New York, N. Y.—Railroad car truck, with combined, stationary, and revolving axles, loose, independent wheels, and oscillating boxes. Six sets narrow gauge railroad car trucks, fitted with the Miltimore axles and wheels, are in use on the West End Passenger Railway. D 69–70. 573

906 Tryon, Geo. K., Son, & Co., Philadelphia, Pa.—Car and other bearings and articles of phosphor-bronze, composition, Babbitt, and type metal. E 71. 573

907 Davenport, Fairbairn, & Co., Erie, Pa.—Engine and car wheels. E 70. 573

908 Miles, W. A., Copake Iron Works, Copake, N. Y.—Car wheels. E 68. 573

909 Middleton, N. & A., & Co., Philadelphia, Pa.—Railroad car springs with section of trucks. E 66 *and* 70. 573

910 Barnum Richardson Co., Lime Rock, Conn.—Salisbury iron ore, charcoal pig iron, cast chilled car wheels. E 71. 573

910*a* Ewart Manufacturing Co., New York, N. Y.—Drive chains. E 62. 573

910*b* National Car Spring Co., New York, N. Y.—Elliptic, spiral, rubber, volute and rubber centre spiral car springs. E 68. 573

911 Standard Steel Works, Philadelphia, Pa.—Crucible steel locomotive and car wheel tires, castings, and forgings. E 72. 573

912 Midvale Steel Works.—Works and Office, Nicetown, Philadelphia, Pa. C 23.

a Cast steel tires, all sizes and sections; record of trial in hydraulic press of Baldwin locomotive works, April, 1876. 573

b Cast steel axles, guaranteed to stand five blows of seventeen hundred pounds' drop, falling twenty-five feet upon four-inch section, bearings three feet apart; axle reversed between blows. 573

c Same, bent, cold. 573

d Rails, twisted, cold. 574

e Solid cast steel forging, diameter thirteen inches; length, twelve feet. Tensile strength per square inch, 83,824 pounds; elastic limit, per square inch, 50,000 pounds; elongation under strain, 16.5 per cent. 513

f Solid steel castings; railroad crossing; planed anvil-face, weighing 3280 pounds. 513

g Miscellaneous ingots. 513

h Ingots of open-hearth steel, broken, showing solidity and characteristics of same. Elastic limit per square inch, 65,018 pounds; tensile strength, per square inch, 123,220 pounds; elongation under strain, 16.5 per cent. 513

i Tool, machinery, and spring steel, all shapes, with fractures and evidences of quality. 513

j Forgings. 514

913 Lang, Wm., Bailey, & Co., New York, N. Y.—Cast steel locomotive tires. F 70. 573

914 Whitney, A., & Sons, Philadelphia, Pa.—Car wheels and axles. E 72. 573

915 American Paper Car Wheel Manufacturing Co., Hudson, N. Y.—Coach, truck and car wheels, of paper, steel and iron combined. E 65. 573

916 Washburn Car Wheel Co., Hartford, Conn.—Steel-tired car wheels, cast iron centres. E 70. 573

916*a* White, Joseph J., Smithville, N. J.—Portable fare-box. D 64. 573

917 Sax & Kear, Pittston, Pa.—Steel-tired truck and car wheels, with cast iron centres. E 73. 573

918 Harrison, Samuel L., San Francisco, Cal.—Railroad car axle, with independent wheels. E 72. 573

919 Schoem, Wm. H., Wilmington, Del.—Locomotive, car, and wagon springs. E 67. 573

920 Nichols, Pickering, & Co., Philadelphia, Pa.—D 67.

a Railway elliptic, volute and spiral springs. 573

b Cast steel nut-lock washers. 574

921 Fields, Wm., Wilmington, Del.—Cast steel rails, made direct from iron ore. E 64. 573

922 McKee, Fuller, & Co., Catasauqua, Pa.—Railroad car wheels. D 65. 573

922*a* Baltimore Car Wheel Co., Baltimore, Md.—Chilled cast iron engine and car wheels; samples of iron. E 66. 573

922*b* Atwood Railway Wheel Co., New York, N. Y.—Railway wheels. E 69. 573

922*c* Vose, Dinsmore, & Co., New York, N. Y.—Elliptic, spiral, rubber, volute and rubber centre spiral car springs. E 68. 573

922*d* Roberts, A. & P., & Co., Philadelphia, Pa.—Hammered and rolled car axles. E 72. 573

922*e* Hopkins, D. A., Jersey City, N. J.—Car journal boxes. E 69. 573

922*f* Woodbury, James A., Boston, Mass.—Elastic steel tire car wheels. E 70. 573

922*g* Taylor Iron Works, High Bridge, N. J.—Passenger wheels on axle, narrow gauge wheels, sample wheels and sections; axles bent cold, etc. E 69. 573

923 Nashua Iron & Steel Co., Nashua, N. H.—Steel plates, tires, axles, shaftings, bars, and forgings; iron axles, bars, plates, car wheels, and forgings. E 66–67. 573

Railway Plant, Agricultural Machinery.

923*a* **Eccles, James, Philadelphia, Pa.**—Frictionless journal box for railroad car axles. D 60. 573

923*b* **Columbia Car Spring Co., New York, N. Y.**—Spiral and rubber car springs. E 69. 573

923*c* **Jeffries, James, & Sons, Philadelphia, Pa.**—Locomotive, tender, and elliptic car springs. E 69. 573

924 Hamilton Steeled Wheel Co., Philadelphia, Pa.—Car wheels and specimens of metal, process of manufacture. D 68. 573

925 Jersey City Wheel Foundry & Machine Works, Jersey City, N. J.—Elastic steel tired car wheels, chilled car wheels. D 68. 573

925*a* **Potter & Hoffman, Philadelphia, Pa.**—Railway construction tools. B 30. 573

925*b* **Union Car Spring Co., Bridgeport, Conn.**—Car springs, and steel. E 71. 573

926 Raddin, John, Lynn, Mass.—Elastic car and carriage wheels, automatic brakes, compensating wheels, bunters, elastic chains, etc. E 70. 573

927 Fisher & Norris, Trenton, N. J.—"Fisher" patent rail joints for broad and narrow gauge roads. B 6–41, *and Annex 1.* 574

928 Wharton Railroad Switch Co., Philadelphia, Pa.—Railroad switch, steel rail frogs, steel rail crossing. D 71–73. 574

930 Jersey City Iron Works, Jersey City, N. J.—Detachable steel rail frogs and crossings, safety switch stands, car replacer. D 71. 574

931*a* **Cochrane, John, New York, N. Y.**—Cleats to secure rails to the cross ties. E 48. 574

931*b* **Wood, Joseph, Red Bank, N. J.**—Adjustable spring, and stationary frogs. E 69. 574

931*c* **Scheiner, J. H., Philadelphia, Pa.**—Frogs for cars and signals. E 71. 574

931*d* **Stillman, Wait J., Troy, N. Y.**—Track guard. (*Outside of building.*) 574

931*e* **Redding, W. E., New York, N. Y.**—Railroad switches. (*Outside of building.*) 574

931*f* **Mansfield Elastic Frog Co., New Haven, Conn.**—Railroad frog. E 71. 574

931*g* **Kasson, C. Vallette, Buffalo, N. Y.**—Continuous rail, railway frog, and crossing. E 78. 574

931*h* **Seely & Stevens, New York, N. Y.**—Pellucidite,—architectural wood finish. (*Used on all wood work in Machinery Hall.*)

932 Pennsylvania Steel Co., Harrisburg, Pa.—Bessemer steel ingots, blooms, forgings, and rails, open hearth steel ingots and blooms, safety switch, steel rail crossing and frogs, car replacer. D 29, *and* E 62. 574

933 Diamond State Iron Co., Wilmington, Del.—Railway track fastenings and merchant bar iron. Manufacturers of railroad splice bars, all sizes; noted for fit, quality, and finish. Track bolts and spikes of superior iron; extra quality bar and horseshoe iron. E 62. 574

933*a* **Lukens, J. H., Burlington, N. J.**—Railway switch stand. D 71. 574

933*b* **Barker, E. W., Portland, Me.**—Car coupler. D 70. 574

933*c* **Wood, Joseph, Red Bank, N. J.**—Railroad frogs; switch stand. E 69. 574

933*d* **Tuthill, Daniel S., Newburg, N. Y.**—Railway tracks—to overcome contraction and expansion. E 72. 574

934 Pratt Manufacturing Co., New York, N. Y.—Elastic fish joints. E 62. 574

935 Bean, H. & B. F., Pawling, Pa.—Mail pouch holder and catcher for railroad cars while in motion, draw heads for cars. D 66. 575

936 Rousseau's Railway Signal Co., New York, N. Y.—Electric railway signals, office indicators, switch locks, circuit closer, etc. D 67. 575

937 Wharton, Wm., jr., Philadelphia, Pa.—D 72.

a Patent Bessemer steel street railway curves; cast iron street railway curves; cast iron street railway switches; cast iron street railway frogs; cast iron street railway crossing. 574

b Patent cast-iron street railway turntable. 575

938 Spahn, Emil P., Newark, N. J.—Models for automatic railroad crossings, gates, and signals. E 57. 575

939 Ridge, Elmer, Philadelphia, Pa.—Balance folding gates for railway crossings. D 65. 575

939*a* **Lansing, H. S., Philadelphia, Pa.**—Railroad crossing safety gate. (*Northeast of Machinery Hall.*) 575

939*b* **Williams, Joseph S., Philadelphia, Pa.**—Anti-frog tracks, rail switches, and crossings, rail supports, and car ventilator. P 72. 575

939*c* **Heywood, C. L., & Co., Boston, Mass.**—Railroad bridge guard, for the protection of train men, at bridges over railroads. E 41. 575

939*d* **Hitchcock Lamp Co., Watertown, N. Y.**—Lamps for fat oils and kerosene. D 40. 575

939*e* **Post & Co., Cincinnati, O.**—Railway passenger-car trimmings, locomotive head lights. D 71. 576

Machines used in preparing Agricultural Products.

940 Deal, M., & Co., Bucyrus, O.—Separator and smutter, brush smutter, warehouse separator, and mill machinery trucks, etc. E 57. 580

941 Bullock, C. K., Philadelphia, Pa.—Flour mill machinery. E 52. 580

942 Huntley, Halcomb, & Hine, Silver Creek, N. Y.—Purifier, bran dusters, bolting cloth. E 47. 580

944 Howes, Babcock, & Co., Silver Creek, N. Y.—Eureka smut and separating machine. Eureka brush polishing machine. The worst samples of smutty and foul wheat can be perfectly cleaned with these two machines. Grain separator, with patent zigzag arrangement for separating oats and all other seeds from wheat. Bolting cloth, elevator buckets, mill stone brush, pick handles. E 49. 580

944*a* **Mungon Bros., Utica, N. Y.**—Corn grinding mill, eye spindles, levers, etc. E 61-62. 580

Agricultural Machinery.

944*b* **Cumbie & Donald, New York, N. Y.** — Mechanical oven model. . E 66, 67. 580

944*c* **Stangeland, Elias, Rockdale, Minn.** — Grain steaming machine. E 60. 580

944*d* **Teter, W. L., Bristol, Tenn.**—Self-regulating silent mill feed. E 63. 580

945 **Noye, John T., & Son, Buffalo, N. Y.**—Flour mill models, portable mills, millers' tools, middlings purifier, bran duster. E 47. 580

945*a* **Gilbert, Calvin, Chambersburg, Pa.**—Combined separating and scouring smut machine. E 57. 580

946 **Ingraham & Beard, Chicago, Ill.**—Grain scourer, smutter separator, grader, dustless malt and warehouse separator and grader. E 54. 580

947 **Young, J., & S. Bernheisel, Green Park, Pa.**—Flour bolt and middlings purifier combined, with bran separator and duster attached. E 57. 580

948 **Harris, Clinton S., Elizabeth, N. J.** —Smut and scouring machine, and suction fan for cleaning grain. E 58. 580

949 **Richardson, D. M., Detroit, Mich.** —Improved patent wheat scourer, polisher, and separator. The principles covered in this machine may be briefly stated as follows, viz.: It scours and polishes the wheat thoroughly, without breaking, cutting, scratching, wearing away, or impairing the bran fibre, thereby leaving the bran full strength. When the wheat goes upon the burrs, the bran comes off in large flakes or patches, and passes through without pulverizing and mixing with the flour; the blast can be adjusted to secure any desired separation. F 60. 580

950 **Turner, Parks, & Co., Cuyahoga Falls, O.**—Rolling screen separator, middlings purifier, mait scourer, garlic, ratball, and straw extractor. E 58. 580

952 **Barnard & Leas Manufacturing Co., Moline, Ill.**—Smutter, scourers, separator, flour packer, corn sheller, corn cleaner. E 48. 580

952*a* **Conklin, N. A., Brooklyn, N. Y.**—Corn chitting and hominy mill. F 48. 580

952*b* **Roland, Francis, & Co., Reading, Pa.**—Grain decorticator and separator; model of water wheel. E 61. 580

954 **Woodward, Thos. B., Philadelphia, Pa.**—Mill stones, mills, flour mill machinery. E 46. 580

955 **Baltimore Pearl Hominy Co., Baltimore, Md.**—Hominy mill or corn granulator. Manufacturers of breakfast hominy, samp, corn flour, pearl meal, etc. Sole owners and manufacturers Patent Buckeye Hominy Mill. F 59. 580

957 **Griscom & Co., Pottsville, Pa.**—Diamond mill stone dressing machines. (Will do as much work in one hour as can be done in a day with the pick.) Used by best mills. Thirty days' trial allowed. E 53. 580

958 **Harrison, Edward, New Haven, Conn.**—Vertical burr stone mills for grain, minerals, etc., and combined flouring mill and bolter. E 59. 580

959 **Leonard & Silliman, Bridgeport, Conn.**—Burr stone flour and grist mills. E 56. 580

959*a* **United States Attrition Co., New York, N. Y.**—Attrition mill for pulverizing ores, cereals, etc. F 49. 580

959*b* **Allis, Edward P., & Co., Milwaukee, Wis.**—Middlings purifier and duster, mill stones, cockle separator, and crushing rolls. E 56. 580

959*c* **Hanna, C. T., Keokuk, Iowa.**—Wheat steamer and dryer. E 57–58. 580

959*d* **Macarthy, John, New York, N. Y.** —Bran picker and duster. E 60. 580

959*e* **Mecutchen, Jesse G., Philadelphia, Pa.**—Smut machine, and mill stones. E 58–59. 580

959*f* **Throops Grain Cleaner Co., Auburn, N. Y.**—Grain scourer and separator; wheat brushing machine. E 68. 580

959*g* **Kreider, Campbell, & Co., Philadelphia, Pa.**—E 50.
a Grain mill. 580
b Spice mill. 585

960 **Lafferty, H. W. & R., Gloucester, N. J.**—Centrifugal sugar-draining machines, with mixer and elevator. E 46. 581

960*a* **Schemedes, J. W. R., New York, N. Y.**—Evaporator. E 57. 581

960*b* **Colwell & Bro., New York, N. Y.**—Vacuum pan and sugar refining apparatus. E 79. 581

960*c* **Hepworth, S. S., New York, N. Y.** —Centrifugal extractor. E 79–80. 581

961 **Mills, Thomas, & Bro., 1301 and 1303 North Eighth street, Philadelphia, Pa.**—Confectioners' tools, fruit-drop machine and rollers; flat stick, sour drop, and paper fringing machines. Patent candy slicer, cocoanut grater, cutters, egg beater, and toy machine. E 65. 582

962 **Gardner, Mrs. John, Philadelphia, Pa.**—Confectionery tools, candy machinery. F 48. 582

963 **Croft, Wilbur, & Co., Philadelphia, Pa.**—Revolving pans for making confections. E 64. 582

964 **Mitchell, J. H., Philadelphia, Pa.**—Cocoanut grater, candy slicer. B 80. 582

965 **Anderson, J. P., Philadelphia, Pa.** —Cocoanut graters, candy slicers. F 45. 582

966 **Colburn, Levi J., Chicago, Ill.**—Confectionery; process of manufacture. F 46. 582

967 **Archer & Brownell, Richmond, Va.** —Process of manufacturing plug and twist chewing and smoking tobacco, cigarettes. F 57. 584

967*b* **Wulstein, Henry, New York, N. Y.**—Tobacco granulator. F 55. 584

967*c* **Tygh, James F., Philadelphia, Pa.** —Tobacco stripping and booking machine; cigar moulds. F 60. 584

968 **Cain, P. O., & Co., Philadelphia, Pa.**—Cigar moulds. F 55. 584

969 **Enterprise Manufacturing Co.,** Patented Hardware Manufacturers and Iron Founders, American and Dauphin streets, Philadelphia, Pa.—Coffee, drug, and spice mills, twenty sizes; measuring faucets, tobacco cutters, cheese knives, sad irons, bung-hole borers, sausage stuffers, fruit and jelly pressers. F 56. 585

970 **Dell, John C., Philadelphia, Pa.**—Coffee mills, scales. D 62. 585

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

Agricultural Machinery, Boats, Vessels, and Appliances.

971 Boyd, G., Philadelphia, Pa.—Coffee roaster, coffee cooler. (*Annex 1.*) 585

973 Weikel & Smith Spice Co., Philadelphia, Pa.—Coffee roasting and spice mill machinery. (*Annex 1.*) 585

974 Troemner, Henry, 710 Market street, Philadelphia, Pa.—Coffee mills; manufacturers of scales and balances in use at the U. S. Treasury, and all the U. S. Mints and Assay Offices. F 55. 585

975 McCollum, L. A., New York, N. Y.—Cracker machine, dough mixer, reversible dough brake, mechanical oven. E 66. 585

976 Silver & Deming Manufacturing Co., Salem, Ohio.—Meat choppers and meat stuffers. F 54. 586

976*a* Speihlman, Geo., Strasburg, Pa.—Meat chopper. F 55. 586

977 Ruger, J. W., & Co., Buffalo, N. Y.—Cracker, bread, and cake machinery and bakers' tools. F 62. 586

978 Murray Iron Works Co., Burlington, Iowa.—Meat choppers, lard presses, sausage stuffers, etc. This exhibit attracts special attention of butchers and sausage makers. The draw-cut movement of the knives (which is that of a knife used by hand), is the peculiar feature which is claimed, distinguishes these machines from all others, and secures to them a clean cut, without noise or pounding and with very little wear of the parts. Some of them have been in constant use for over four years, without repairs of any kind. Their beauty, and the smoothness and precision of their work, attracts very general attention from the many who are interested in this kind of machinery, they being the only "draw-cut" machines made. F 60. 586

979 Huber & McCarter, Lancaster, Pa.—Steam meat chopper. E 60. 586

979*a* Roberts, Carle, & Co., New York, N. Y.—Hand cutter. E 57. 586

979*b* Kenyon, J. H., Plainfield, N. J.—Hand and power meat choppers. F 61. 586

979*c* Nittinger, August, jr., Philadelphia, Pa.—Butchers' and packers' machinery. F 54. 586

980 Sauter, Charles, Reading, Pa.—Malt cleaning machine, cylinder-wheel malt chopper. E 69. 587

981 Reford, J. W., Philadelphia, Pa.—Grain-distilling and vapor-rectifying apparatus. E 69. 587

982 Boese, C., & Co., New York, N. Y.—Capping machines, for adjusting metallic capsules on bottles, jars, etc. E 68. 587

Aerial, Pneumatic, and Water Transportation.

982*a* Sewall, Day, & Co., Boston, Mass.—Shrouding, rope, etc. E 39. 590

983 Hartness, James, Detroit, Mich.—Section balloon, with life-boat attached. D 32. 592

984 Swarzmayer, John, Philadelphia, Pa.—Flying machine model. D 33. 592

985 Page, E. W., New York, N. Y.—Boat oars. D 32. 594

986 Bolles, J. N., Baltimore, Md.—Models for submarine work. A 56, *and outside.* 594

987 Fields, William, Wilmington, Del.—Models of armor-ship, and field-battery gun. E 64. 594

988 Chomel, I. A., Brooklyn, N. Y.—Swinging berths and platforms for prevention of sea-sickness. D 31. 594

989 Grinnell, Irving, New Hamburgh, N. Y.—Ice yacht. D 28–31. 594

989*a* Lyman, William, Middlefield, Conn.—Bow-facing rowing gear. D 31, *and on lake.* 594

990 Wilen, George C., Philadelphia, Pa.—Small boat. D 32. 594

991 Richards, H. J., West Troy, N. Y.—Ice yacht. D 34. 594

992 Walton, Lewis W., New York, N. Y.—Row-lock for boats. D 35. 594

993 Burr & Co., New York, N. Y.—Tackle blocks, etc. D 34. 594

993*a* Perry, E. L., New York, N. Y.—Life raft. D 37. 594

993*b* Whistler, Thos., Baltimore, Md.—Non-capsizable life boat. D 31. 594

993*c* Stoner, John B., New York, N. Y.—Floating lighthouse. D 35–36. 594

994 Desmond, Timothy, New York, N. Y.—Pair-oared gig. D 36. 594

994*a* Bird, John, Philadelphia, Pa.—Glass moulding press. (*Annex 3.*) 594

995 Adams, John & Co., Gloucester, N. J.—Life preserving mattress, self-righting life boat. D 33. 594

995*a* Lyman, W., Middlefield, Conn.—Rowing gear. D 31, *and on lake.* 594

995*b* Jackson, James L., New York, N. Y.—Steering apparatus; process and apparatus for making patterns. C 35–36. 594

996 Waters, E., & Sons, Troy, N. Y.—Paper boats, barrels, packages, cylinders, etc. D 35–36. 594

997 Bryant, John L., & Co., Philadelphia, Pa.—Double life boat. D 33. 594

998 Von Behren & Shaffer, Stryker, O.—Boat oar, handspike. D 38. 594

999 Smith, D. S., Philadelphia, Pa.—Canoe, "Dolphin," of Queenstown, Md. D 38. 594

1000 Jones, John McA., Philadelphia, Pa.—Boat-detaching apparatus. D 32. 594

1001 Begin, Peter N., Detroit, Mich.—Revolving head light for vessels. D 39. 594

1002 Hook, Gilman, West Harwich, Mass.—Toy yacht. D 32. 594

1003 Rider Life Raft Co., New York, N. Y.—Life rafts. D 40. 594

1004 Miles, Geo. W., Philadelphia, Pa.—Single scull shell. D 40. 594

1005 McGilvery, S. W., Belfast, Me.—Model for clipper ship. D 40. 594

1006 Powell, Richard, Washington, D. C.—Improvement in building iron vessels. D 39. 594

1006*a* Bradlee & Co., Philadelphia, Pa.—Cable and rigging chains. D 38. 594

1006*b* Fearon, Thomas, Yonkers, N. Y.—Shell boats, composite planking. E 40. 594

For location of objects, indicated by letter and figure, see Key to Notation, p. 10; ground plan, p. 11.

Boats, Vessels, and Appliances.

1006*c* **Roach, John B., Chester, Pa.**—Models of vessels, shaft and froggings. E 40. 594

1006*d* **Glass, Wm., Philadelphia, Pa.**—Race boat. D 36–37. 594

1006*e* **Englis, John, & Son, Greenpoint, N. Y.**—Steamship models. D 34. 594

1006*f* **Flower, Wm., Bangor, Me.**—Life saving apparatus, boat lowering, and detaching apparatus, etc. E 35. 564

1006*g* **Goldie, George, Princeton, N. J.**—Rowing machine. D 40. 594

1006*h* **Pusey, Jones, & Co., Wilmington, Del.**—Photographs and models of steamboats and steamships. C 74. 594

1006*i* **Harrington, Charles B., Bath, Me.**—Schooner yacht. D 32. 594

1006*j* **Parcels, Thomas, Philadelphia, Pa.**—Full-rigged schooner sailing yacht. D 49. 594

1006*k* **Mallory, W. H., Bridgeport, Conn.**—Steam yacht. *On Schuylkill river.* 594

1006*l* **Cort, Mrs. C. A. van, New York, N. Y.**—Torpedo boat. D 31. 594

1006*m* **Francis, Frank, Philadelphia, Pa.**—Model of bark. D 36. 594

1006*n* **Johnson, Hilary C., Philadelphia, Pa.**—Miniature model of a full rigged ship. D 40. 594

1006*o* **Kahnweiler, David, New York, N. Y.**—Cork jacket. D 40. 594

1006*p* **Ormsbee, M., Brooklyn, New York.**—Sleeve life preservers and collar rescuer. "The Sleeve Life Preservers" are used to great advantage in pleasure-swimming, and, as a teacher of the novice, learning the art. To skaters they afford comfort, keeping the arms warm and the body harmless from falling, besides saving life should the ice break, preventing cramp in the arms, however cold the weather. Cricketers also wear them. They make two excellent pillows for traveling on the cars, boats, etc. They can be placed side by side for a cushion, and are easily carried in the pocket, and can be put on very quickly. "The Collar Life Preserver" rescues persons from drowning; is used also as a cushion for the house, counting-room, or traveling in the cars or boats, and as a cabinet invalid chair cushion. It can be put on instantly for life saving, even by a child two years of age; is used as a seat in the parks to prevent colds and sickness from sitting upon the damp ground. Bathing-house proprietors can be furnished with life preservers at prices that must assure them a handsome income from their sale or rental, with bathing-dresses, and by keeping the Collar Life Preservers always ready, none of their patrons can possibly be drowned, as they can be rescued in less than a minute by any of the assistants. Either of the preservers costs $5; or $1, to hire for a trip to Europe, or elsewhere. For particulars, address Capt. M. Ormsbee, patentee and manufacturer, 52 Willow street, Brooklyn, New York. D 40. 594

1006*q* **Tipton, John, Philadelphia, Pa.**—Model of boat. D 36. 594

1006*r* **Rowland, T. F., Greenpoint, N. Y.**—Steam launch, metallic life boat. A 69 *and* D 31. 594

1006*s* **Roach, John, & Son, New York.**—Models, armor plate, and marine engine work. E 40. 594

1007 United States Bunting Co., Lowell, Mass.—Bunting and flags. F 40. 594

1008 Massachusetts State Commission, Leverett Saltonstall, Commissioner, N. E. Tower Main Building, Philadelphia, 18 Pemberton Square, Boston, Mass.—Water craft, old and new, and articles which take part in their construction and use.—being an historical exhibit of the growth of the marine interests of Massachusetts, from the earliest periods to the present time. F 38–40. 594

1009 American Life-Saving Suit Co., New York, N. Y.—Life-saving suit for ocean travel, surf belt for river travel. D 33. 594

1010 Wyatt, John L., Yonkers, N. Y.—Full-rigged clipper South Sea whale ship. E 38. 594

1011 Gildersleeve, S., & Sons, Gildersleeve's Landing, Conn.—Working models of wooden, steam, and sail vessels, for profitable freighting business. Largest carrying capacity on light draft with good sailing qualities. D 40. 594

1012 Poillon, C., & R., New York, N. Y.—Model of schooner yacht "Sappho" and pilot boats "Thomas S. Negus," of N. Y., and "E. C. Knight," of Philadelphia. E 39. 594

1013 Webb, Wm. W., New York, N. Y.—Models and plans of celebrated naval and other vessels. D 31. 594

1014 Cannon, John D., New Castle, Del.—Hooped skiff boat, without timbers or knees. D 31–32. 594

1015 Baird & Huston, Philadelphia, Pa.—Steam yacht. D 38–40. 595

1016 Harlan & Hollingsworth Co., Wilmington, Del.—Ships, models, drawings, and plans of vessels and machinery, paintings of ships and steamboats. D 29. 595

1017 Griffiths, John W., New York, N. Y.—Model of ocean steamship; "The Progressive Ship Builder." D 40. 595

1018 Zantzinger, Dan'l W., Washington, D. C.—Model and section of steamship, improvement in construction of iron vessels. The above improvement consists in providing small watertight compartments entirely surrounding the hull of the vessel. D 40. 595

1019 Grant, D. Conrad, Houghton, Mich.—Adjustable ice plow and naval ram, or submarine mortar, attached to miniature boat. D 40. 594

1020 New York Safety Steam Power Co., New York, N. Y.—Steam launch. E 38–40. 595

1021 Crowell, J. W., & Co., Cambridge, Md.—Models for steam and sail vessels. Builders of all classes of wooden vessels. Frames furnished of best quality of Chesapeake white oak. We invite inquiry as to our facilities. D 40. 595

1022 Thwait, Charles, Astoria, N. Y.—Model of steamship, with working machinery. D 35. 595

1022*a* **Sulter, Frederick, Philadelphia, Pa.**—Propeller screws, models and drawings of boiler, etc. D 78. 595

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

1022*b* American Steamship Co., Philadelphia, Pa.—Models and paintings of the steamers of the company. C 41. 595

1023 Pennsylvania Combined Iron & Steel Association, Philadelphia, Pa.—Combined iron and steel armor plate, steel bore wrought iron guns. D 28-30. 594

1024 American Dredging Co., 10 South Delaware avenue, Philadelphia, Pa.—Improved grapple and dipper dredges, and machinery for river and harbor improvements. E 40. 596

1024*a* Hawley, Abel, Washington, D. C.—Rotary dredge. E 40. 596

1024*b* Eau Claire Lumber Co., Eau Claire, Wis.—Sheer rudder loom and pontoon bridge. (*Saw mill.*) 596

1025 Cox, Frank, Philadelphia, Pa.—Model for coffer dam for removing propellers from ships. E 39-40. 596

1026 Coffin & Woodward, Boston, Mass.—Capstans, chain-stopper, screw-steerer, and rudder-supporter, elastic-traveler, portable winch, windlasses, pumps, etc. Best modern improved articles. D 39. 597

1026*a* Robinson, R. M., Philadelphia, Pa.—Simple and compound anchor, with apparatus. D 5. 597

1027 Sickles, F. E., Providence Steam Engine Co., Providence, R. I.—Original models of some of exhibitor's early inventions, now in use in this country and abroad, viz.: Trip cut-off, patented 1842, and improvements thereon patented 1845; casting steam chest on cylinder, patented 1845; improvement on working exhaust valves, patented 1844; first machine made or used to apply power to the rudder of vessels (in operation), application filed 1849, patented in 1860, etc.; improved compound engine, patented 1875; also original models of improvement in sinking pneumatic piles; also other original models. D 38. 597

1028 Getchett, John S., Washington, Me.—Capstan. D 40. 597

1029 American Ship Windlass Co., Providence, R. I.—Capstans, windlass models. D 40. 597

1030 Hutchinson, T. C., Philadelphia, Pa.—Anchor. D 40. 597

1030*a* Hamilton, S. M., Baltimore, Md.—Hydraulic cement. (*Annex 3.*) 103

1031 Hampton Emery Co., Chester, Mass.—Emery in grains. B 37. 106

1032 Potts Bros., Pottstown, Pa.—Flanged boiler iron and boiler flue iron. B 24. 111

1032*a* Potter & Hoffman, Philadelphia, Pa.—Iron and steel; boiler plate; pig and bar iron. B 30. 111

1033 Rittenhouse, E. W., & Bro., Baltimore, Md.—Terra-cotta pipe. (*Outside of building.*) 206

Machinery and Apparatus Especially Adapted to the Requirements of the Exhibition.

1034 Pease, F. S., Pease, Buffalo, N. Y.—Furnishes all the oil used for the shafting in Machinery Hall. 201

1035 Sellers, Wm., & Co., Philadelphia, Pa.—Electric registers, showing number of admissions at gates throughout the day. 321

1036 Ledgerwood Manufacturing Co., New York, N. Y.—Ash-hoister. 503

1037 American Twist Drill Co., Woonsocket, R. I.—Emery grinding machine, used in the Centennial machine shop. 505

1038 Stillwell & Bierce, Dayton, O.—Heater used in boiler house No. 4. 506

1039 McNeil, George, Philadelphia, Pa.—Heater used in boiler house No. 4. 506

1040 Sellers, Wm., & Co., Philadelphia, Pa.—Lathes, used in the Centennial machine shop. 510

1041 Prentice, A. F., & Co., Worcester, Mass.—Lathe and drill, used in the Centennial machine shop. 510

1042 Fitchburg Machine Co., Fitchburg, Mass.—Lathe and drill for use in the Centennial machine shop. 510

1043 Smith, H. B., Smithville, N. J.—Full set of wood-working tools for Centennial carpenter shop. 510

1044 Keystone Portable Forge Co., Philadelphia, Pa.—Three 6 power forges 54 inches in diameter, for the Centennial machine shop. 514

1045 Stephens Patent Vise Co., New York, N. Y.—Vises, used in the Centennial machine shop. 514

1046 Fisher & Norris, Trenton, N. J.—Vises and anvils, used in the Centennial machine shop. 514

1047 Mitchell, J. E., Philadelphia, Pa.—Grindstones, used in the Centennial machine shop. 515

1048 Andrews, W. D., New York, N. Y.—50 horse power boiler and pumps; boiler for use, and pumps for supplying cataract. 550

1049 Abendroth & Root, New York, N. Y.—100 horse power boiler, supplying steam to steam pumps, etc. 550

1050 Steam Generator Manufacturing Co., Philadelphia, Pa.—100 horse power boiler, supplying steam to steam engines. 550

1051 Babcock & Wilcox, New York, N. Y.—150 horse power boiler, supplying steam to steam pumps, etc. 550

1052 Harrison Boiler Works, Philadelphia, Pa.—100 horse power boiler, supplying steam to steam engine. 550

1053 Exeter Machine Works, Boston, Mass.—75 horse power boiler, supplying steam to steam pumps, etc. 550

1054 Kelly, W. E., New Brunswick, N. J.—50 horse power boiler, supplying steam to steam pumps, etc. 550

1055 Lynde, J. D., Philadelphia, Pa.—50 horse power boiler, supplying steam to steam engines. 550

1056 Miller, Charles B., Philadelphia, Pa.—Boiler, used in boiler house No. 4. 550

1057 Smith, C. D., Boston, Mass.—Boiler, used in boiler house No. 3. 550

1058 Lowe & Watson, Bridgeport, Conn.—Boiler, used in boiler house No. 3. 550

Machinery in Use.

1059 Mast, P. P., & Co., Springfield, O.—Boiler, used in saw mill boiler house. 550

1060 Baxter Steam Engine Co., New York, N. Y.—Engine and boiler, used in Nevada quartz mill. 550

1061 Bowser, J. C., & Co., Fort Wayne, Ind.—Engine and boiler for use in shoe and leather building. 550

1062 Peirce Rotary Tubular Boiler Co., New York, N. Y.—Rotary boiler, for use in saw mill boiler house. 550

1063 Baxter Steam Engine Co., New York, N. Y.—Engine, used in the Women's Pavilion. 550

1064 Hoadley, J. C., Co., Lawrence, Mass.—80 horse power engine and boiler, for use in Machinery Hall. 550

1065 Williamson Bros., Philadelphia, Pa.—Portable hoisting engine, used while installing machinery. 552

1066 Gates, Josiah, Lowell, Mass.—One 30 inch double leather driving belt. 553

1067 Hoyt, J. B., New York, N. Y.—One 15 inch and one 20 inch belt, for driving shafts in Annex 1 and 2. 553

1068 Yale Lock Co., Stamford, Conn.—Three pulley blocks, for use in Machinery Hall. 553

1069 Fales, George S., Pawtucket, R. I.—One 30 inch double driving belt. 553

1070 Burgess & Son, Pawtucket, R. I.—One 30 inch double driving belt. 553

1071 Alexander Bros., Philadelphia, Pa.—One 30 inch double driving belt. 553

1072 Heims, Anton, New York, N. Y.—One 30 inch double driving belt. 553

1073 Schieren, C. A., New York, N. Y.—Belt for use in No. 4 shaft. 553

1074 Page, B. & P. Co., Concord, N. H.—One 30 inch double driving belt, in No. 2 shaft. 553

1075 Rorer, Thos. J., Philadelphia, Pa.—Belt for driving shaft in Annex 3. 553

1076 Goodyear Rubber Co., Philadelphia, Pa.—Belt for driving shaft in Pump annex. 553

1077 Jones & Laughlin, Pittsburg, Pa.—Shafting, pulleys and hangers, for driving Centennial machine shop tools. 553

1078 Fitts, B., Worcester, Mass.—Steam whistle, for use during exhibition. and 4. 555

1079 Woodruff, James, Rahway, N. J.—Dampers, used in boiler houses Nos. 3 and 4. 555

1080 Edson, M. B., New York, N. Y.—Steam gauges, for use in boiler houses Nos. 3 and 4. 555

1081 Nathan & Dreyfus, New York, N. Y.—Patent oil cups, for one line of shafting. 555

1082 Lawrence, W. H., Brooklyn, N. Y.—Safety oil cans, used in Machinery Hall. 555

1083 Barr, Robert J., Philadelphia, Pa.—Elliptic steam trap. 555

1084 Sluthour & Mitzner, Philadelphia, Pa.—Pump, for use in boiler house. 560

1085 Pratt, R. V., New York, N. Y.—Injector, used in boiler house No. 3. 555

1086 Caw, A., New York, N. Y.—Two steam pumps, in boiler house. 560

1086*a* Worthington, Henry P., New York, N. Y.—Duplex pumping engine, furnishing total supply of water for the Centennial Exhibition. (*On Schuylkill river, foot of Lansdowne valley.*) 560

1087 Niagara Pump Works, Brooklyn, N. Y.—Pump, for use in boiler house. 560

1088 Norwalk Iron Works, South Norwalk, Conn.—Five Earle pumps, for use in boiler house No. 6. 561

1089 Blake Manufacturing Co., New York, N. Y.—Pumps, for supplying boilers in boiler house No. 4. 561

1090 Knowles Steam Pump Works, New York, N. Y.—Pumps, for supplying boilers in boiler house No. 2. 561

1091 Philadelphia Hydraulic Works, Philadelphia, Pa.—Pump, for use in boiler house No. 2. 561

1092 Burton, S., & Son, Waterford, N. Y.—Fire engine, for use. 564

1092*a* Scott-Uda, Mrs. M., New York, N. Y.—Aerial ladder. (*In fire station 1.*) 564

1093 Amoskeag Manufacturing Co., Manchester, N. H.—Fire engine and hose carriage, for use. 564

1094 Silsby Manufacturing Co., Seneca Falls, N. Y.—Two engines and hose carriages, for use. 564

1095 Nichols, S. B., Burlington, Vt.—Fire engine and hose carriage, for use. 564

1096 Hoyt, J. B., New York, N. Y.—Three driving belts, for main driving pulley. 564

1098 Gutta-Percha Co., New York, N. Y.—Hose and two driving belts.

1099 Lansing, H. S., Philadelphia, Pa.—Safety railroad gate. 575

1100 Cook & Pulver, New York, N.Y.—Lubricators, for use in annexes. 576

1101 Hanmore, J. W., New York, N. Y.—Felting, covering steam pipe in Machinery Hall. 576

1102 O'Hara, O. M., Boston, Mass.—Felting, covering steam pipe in Machinery Hall. 576

1103 Johns, H. W., New York, N. Y.—Felting, covering steam pipe in Machinery Hall. 576

1104 Chalmers, Spence & Co., New York, N. Y.—Felting, covering steam pipe in Machinery Hall. 576

1105 Sleuster, John T., Philadelphia, Pa.—Felting, covering steam pipe in Machinery Hall. 576

1106 Snider, D. M., Philadelphia, Pa.—Felting, covering steam pipe in Machinery Hall. 576

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

GREAT BRITAIN.

(South of North Avenue, Columns 16 to 17 A to E; also in Pump Annex.)

Metal, Wood, Stone, Cloth, Paper-working Machinery.

Machines, Tools, and Apparatus of Mining, Metallurgy, Chemistry, and the Extractive Arts.

1 Holmes, Joseph E., Payton, Walter, & Taylor, Fenner B., London.
a Rock boring machine. 500
b Coal and rock cutting machine. 502

2 Baird, William, & Co., Gartsherrie Iron Works, Coatbridge, Scotland.—Coal-cutting machine. 502

3 Hurd, Frederick, & Co., Wakefield.—Coal-cutting machine; ratchet wedge shovel. 502

4 Macdermott, Martin, London.—Rock and coal perforators; machines for undercutting coal; screw wedge for breaking down coal. 502

5 Hardy Patent Pick Co. (limited), Sheffield.—Implements for coal, ironstone, gold, and silver mining, for quarrying and excavating; cast steel picks. 502

8 Pickering, Jonathan, Globe Works, Stockton-on-Tees.—Pulley blocks, hoists. 503

9 The Dunston Engine Works Co., Gateshead-on-Tyne, Durham.—Stone breaker; combined stone breaker and bone cutter. 505

10 Kimberley, Nathan Gold, London.—Centrifugal pulverizing mills. 505

11 Siemens, Charles William, London.—Models of furnaces for metallurgical operations, glass melting, etc. 506

12 Smith, Dillwyn, Liverpool.—Mechanical stokers and fire bars. 506

13 Sugg, William, Vincent Works, London.—Gas burners; a new illuminating power meter. 509

Machines and Tools for working Metal, Wood, and Stone.

14 Roberts, William, Bootle, near Liverpool.—Self-acting painting machine for venetian blinds, laths, hoop iron, etc. 510

15 Massey, B. & S., Openshaw, Manchester.
a Circular saw for cutting hot iron and steel. 511
b Steam hammers; steam stamps; models of steam hammers; samples of forgings. 514

16 Wright, Peter, & Sons, Constitution Hill Works, Dudley, Worcestershire.—Anvils; vises; tools of various kinds; hammers. 514

17 Brooks & Cooper, Mousehole Forge, Sheffield.—Anvils, vises, hammers, shear steel, etc. 514

17*a* Fairbairn, Kennedy & Naylor, Leeds.—Quadruple boring machine. 515

18 Beesley & Sons, Abbey Road Boiler Works, Barrow-in-Furness.—Punching, shearing, and angle-cropping machine for iron, steel, or other metals. 515

18*a* Greenwood & Batley, Albion Works, Leeds.—Bolt forging machines. 515

19 Heap, Joshua, & Co. (limited), Oldham.—Tools and machines, taps, hobs, pipe; bolt-screwing and nut-tapping machines. 515

21 Shearer, Hugh, London.—Machine for dressing stone. 516

22 Lavers, Alfred Hamilton, London.—Testing machine to show strength of cement. 517

Machines and Implements of Spinning, Weaving, Felting, and Paper Making.

23 Fleming, Thomas, & Son, West Grove Mill, Halifax.—Card clothing for carding machines, etc.; needle-point teeth. 520

24 Ambler, William, Bradford, Yorkshire.—Machine for making paper cop tubes used in spinning; machine for cleaning the teeth of wheel castings. 520

25 Mackenzie, Duncan, London.—Self-acting reader for the Jacquard loom. 520

26 Ingham, John, & Sons, Croft Head Works, Thornton, near Bradford.—Case of shuttles, etc., for weaving; tacking, shuttle pikes, stocks, and bowls for weaving. 520

27 Platt Bros., & Co. (limited), Hartford Works, Oldham, Lancashire.—Cotton gin. 521

28 Gadd, Thomas, Manchester.—Printing machine for large size garment rollers, angular engine; combined engraving and punching machine; setting-out table, with micrometer; combined varnishing and ruling machine; machine for setting out; ruling machine, cams, engravers' block, and lathe. 521

29 Lancaster, William, Willow Iron Works, Accrington, Lancashire.—Yarn-sizing dressing machine; self-stopping beaming machines; loom. 521

30 Booth, H., & Co., Preston, Lancashire.—Cotton-spinning machinery. 521

31 Carter, John, Halifax, Yorkshire.—Spinning frame. 521

31*a* Greenwood & Batley, Albion Works, Leeds.—Machine for tying in warps for looms. 521

32 Coats, J. & P., Ferguslie Thread Works, Paisley.—Spooling machine; thread-winding machine; machine for ticketing. 531

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

GREENWOOD & BATLEY,

ALBION WORKS, LEEDS, ENGLAND,

Machinists to the British War Department, the Council of State for India, and all the principal Foreign Governments,

EXHIBIT AT THE INTERNATIONAL EXHIBITION OF 1876,

PATENT BOOT SEWING MACHINE,
PATENT BOLT FORGING MACHINE,
PATENT PRINTING PRESS, and
PATENT MACHINE FOR TIEING IN WARPS,

See Catalogue.

MAKERS OF

Special Machinery for the manufacture of Guns and Gun Carriages, Small Arms and Ammunition of all descriptions, including Cartridges, Shot and Shell, Fuzes, Rockets, Bullets, Percussion Caps, &c.; also of Gunpowder and Powder Cask Machinery, as well as of all kinds of Machinery used in the production of War Material and Implements.

MAKERS OF

Machinery on the latest system for Dressing, Preparing, and Spinning Silk, Silk Waste and China Grass; and of Special and General Tools for Engineering and Railway Work, and Wood-Working Machinery.

Agent for China and Japan—Mr. JAMES DAVIDSON, Shanghae.



PARIS,



1867.



SCANLAN, JUNR., & CO.,

WALSALL, STAFFORDSHIRE, ENGLAND,

Proprietors of the Patterns and Goodwill of Messrs. Best & Co.'s PLUMBING AND ENGINEERING FOUNDRY WORK, from Birmingham (Trade Mark as above).

MANUFACTURERS OF PATENTED NOVELTIES.

IMPORTERS OF SPECIAL AMERICAN TOOLS.

Contractors for Railway, Telegraph, Colliery, & Iron Works Stores, Gas & Water Pipes, Apparatus, Metals.

MACHINERY INSPECTED. MANUFACTURED IRON EXPORTED.

IMPORTANT TO CAPITALISTS.

FOR SALE,

THE AMERICAN PATENTRIGHT OF THE

AUTOMATIC FIRE EXTINGUISHER & ALARM

A MOST VALUABLE INVENTION—IS ENTIRELY SELF-ACTING.

Sole Patentees { SANDERSON & PROCTOR, at the EXHIBITION (MACHINERY BUILDING); or SANDERSON & PROCTOR, Electric Engineers and Lightning Conductor Manufacturers, SHORE WORKS, HUDDERSFIELD ENGLAND.

Gold Medal,



McKAY'S EQUILIBRIUM DRILL,

Paris, 1875.



For Boring Tube Plates, Drilling Rivet Holes, and every description of Engine Work with perfect accuracy, without skilled labour. Only requires true centre pop to guide cutters.

MENZIES & BLAGBURN,

NEWCASTLE-ON-TYNE, ENGLAND.

AMERICAN PATENT FOR SALE.

SAMUEL LAWSON & SONS
LEEDS,

MAKERS OF

MACHINERY FOR PREPARING AND SPINNING FLAX, TOW, HEMP, AND JUTE.

LOOMS and PREPARING MACHINERY for FLAX and JUTE WEAVING.

SPECIAL MACHINERY FOR THE MANUFACTURE OF TWINES.

SOLE MAKERS OF

GOOD'S PATENT COMBINED HACKLING and SPREADING MACHINE.

PATENT AUTOMATIC SPINNING FRAMES,

And other special Machinery for the manufacture of Rope Yarns.

COUNCIL MEDAL, London, 1851.
GRAND MEDAL, Paris, 1867.

PRIZE MEDAL, Moscow, 1872.
DIPLOMA OF HONOUR, Vienna, 1873.

Corner of Belmont and Fountain Avenues,
NEAR THE LAKE.

FRENCH RESTAURANT,

LES TROIS FRÈRES PROVENCAUX.

The same which had such a great success in the Vienna Exhibition, in 1873.

CH. VERDIER,
of the MAISON DORÉE, of Paris, Proprietor.

Near the Lake, opposite the U. S. Government Building.

Cloth and Paper-working Machinery, Motors, Pumps.

35 Nussey & Leachman, Leeds.—Hydraulic cloth pressing and finishing machine. 522

36 Lawson, Samuel, & Sons, Hope Foundry, Leeds.—Machinery for carding, preparing, and spinning jute; cop-winding machine. 524

37 Fairbairn, Kennedy, & Naylor, Leeds.—Machinery for preparing and spinning jute, hemp, flax, tow, and similar fibres. Carding engine; drawing, roving, and spinning frames. 524

38 Marshall, T. J., & Co., Campbell Works, Kingsland.—Dandy rolls and wire cloth, for paper making, and pulp strainer. 525

Machines, Apparatus, and Implements used in Sewing and Making Clothing and Ornamental Objects.

39 Gimson & Coltman, Leicester.—Knitting machines; rip top and circular machines. 531

40 Wilson, Newton, & Co., London.—Sewing machines, their appliances and apparatus. 531

41 Kimball & Morton, Glasgow.—Sewing machines; machines for sewing sails and sacks over-edge. 531

43 Sanson, Robert Bell, London.—Spring arm endless band knife; cloth-cutting machine; parallel pressing machine for tailors' use. 531

44 Air Burning Co. (limited), Glasgow.—Ironing table. 534

45 Broadbent, Thomas, Chapel Hill, Huddersfield.—Hydro extractor, for extracting water from wool, cotton, etc. 534

Machines and Apparatus for Type-Setting, Printing, Stamping, Embossing, and for Making Books, and Paper Working.

46 Beatty, Francis S., Dublin.—Lithographers' manifold transfer machines, for the reproduction of printed matter of enlarged or reduced dimensions from that of the original. 540

46*a* Greenwood & Batley, Albion Works, Leeds.—Printing machine. 540

47 Lilly, John, & Co., London.—Perfecting and single cylinder printing presses. 540

48 Walter, John, London.—Printing press. 540

49 Shaw, William, London.—Logotypes and cases, shown in operation; printing press. 540

Motors and Apparatus for the Generation and Transmission of Power.

50 Green, Edward, & Son, Manchester.—Fuel economizer for heating the feed water for steam boilers. 550

51 Davey, Paxman, & Co., Colchester, Essex.
a Vertical boiler and water heater. 550
b Portable steam engine; vertical engine; steam corn dryer. 552

52 Galloway, W. & J., & Sons, Knott Mill Iron Works, Manchester.—Steel boilers, for use in the British section. 550

55 Wright, William, Vulcan Foundry, Coatbridge.—Hot water boilers for heating dwellings, conservatories, etc. 550

56 Moncrieff, John, North British Glass Works, Perth, Scotland.—Steam boiler water gauge glasses. 551

57 Wier, Marshall Arthur, London.—Pneumatic motor, water meter, hydro-gyrometer, locomotive speed indicator, pneumatic gyrometer, reciprocating counter. 551

57*a* Holmes, Joseph E., Payton, Walter, & Taylor, Fenner B., London.—Cylinder engine; revolving steam engine and air compressor. 552

57*b* Hurd, Frederick, & Co., Wakefield.—High-speed air compressor. 552

57*c* Smith & Starley, Trafalgar Works, Coventry.—Electric motors. 552

58 Thermo-Electric Generator Co. (limited), London.—Thermo batteries worked by gas, charcoal, or coke, in nature approaching the appearance of a gas stove. 552

58*a* Moy, Thomas, London.—Small steam engines for tramways, etc. 552

58*b* King, F. L.—Steam engines. 552

59 Turner, Charles, Southampton.—Couplings for propeller shafts and other purposes. 554

60 Hewitt, William, Bristol.
a Model of improved screw propellers; model of an improved principle for driving machinery. 553
b Breech-loader gun; gun carriage. 266

61 Vansittart, Henrietta, Mrs., Twickenham.—Screw propeller. 554

62 Hicks, James Joseph, London.—Enamel water gauges for steam boilers. 555

63 Moncrieff, John, North British Glass Works, Perth.—Gauge glasses for indicating height of water in steam boilers. 555

Hydraulic and Pneumatic Apparatus, Pumping, Hoisting, and Lifting.

63*a* Pickering, Jonathan, Globe Works, Stockton-on-Tees.—Steam and water cylinder; steam pump. 560

64 Gwynne, John & Henry, Hammersmith Iron Works, London.—Model of compound surface-condensing engines with centrifugal pumps made to ⅛ scale. 560

64*a* Haynes, Thomas, & Sons, London.
a Platform pump; garden syringe. 560
b Water bringer, for overcoming friction caused by drawing water through long lengths of hose; self-acting hose coiler. 564

65 Gwynne & Co., London.
a Centrifugal pumps and engines. 560
b Gas exhauster and engine. 561

66 Ellis, William Irlam, Manchester.—Blower or exhauster for air or gas. 561

67 Appleby Bros., London.—Steam cranes. 563

68 Wallace & Tucker, Belfast.—Fire annihilator. 564

70 Needham & Kite, Phoenix Iron Works, London.—High pressure filter press. 565

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

71 Lawrence & Co., London.—Refrigerators; mashing machines, spargers, etc. 565

72 Dennis, T. H. P., & Co., Anchor Iron Works, Clemsford.—High pressure valves for steam, hot or cold water, or gas. 566

Railway Plant, Rolling Stock, and Apparatus.

73 Welch, Alfred, London.—Railway cattle wagons. 571

74 Williams, Richard Price, London.—Continuous railway crossings; switches for doing away with facing points on railways. 574

75 Brierley, Sons, & Reynolds, London.—Railway signal model of railway junction. 574

76 Seaton, William, London.—Saddle rail and permanent way construction. 574

77 Saxby & Farmer, London.
a Models of railway switches; junction, with switches and signals. 574
b Railway signals, and level crossing gates. 575

Machines used in preparing Agricultural Products.

78 Sutcliffe, James S., Bacup, Lancashire.—Middlings flour separator. 580

79 Mirlees, Tait, & Watson, Glasgow.—Machinery in motion, consisting of sugar mills, valveless engine working an air pump for a vacuum pan, and driving centrifugal machines. 581

80 Collier, Luke, Rochdale.—Confectioners' machines. 582

81 Andrew, J. E. H., Stockport.—Machines for spinning tobacco; samples of twist tobacco from Europe. 584

Aerial, Pneumatic, and Water Transportation.

82 Siebe & Gorman, London.—Diving apparatus for two divers; figure of diver in diving suit, with the helmet and speaking apparatus. 594

82*a* Wallace & Tucker, Belfast.—Model of turret system of life preservation, in case of shipwreck. 594

83 Cruickshank, A. B., Dundee, Scotland.—Self-acting safety cleats for boats and yachts. 594

84 Logan, John Maxwell, Cambridge.—Model of four-oared racing boat, to take to pieces for convenience in traveling. 594

85 Inman Steamship Co. (limited), Liverpool.—Full rigged model and oil painting of the steamer "City of Berlin." 594

86 Hill & Clark, London.—Boat disengaging hooks. 594

86*a* Bradford, William Henry, Great Saughall, near Chester.
a Model of life boats, lateen rig, life or salvage boat. 594
b Model of a ship's course indicator. 597

87 Clark, Standfield, & Co., London.—Models of floating and gridiron depositing docks. 596

88 Roby, George, Wigan.—Hydro-pneumatic and other vessels for the storage of gunpowder, etc. 596

90 Wood, John William, Harwich, Essex.—Iron self-adjusting shot hole, rivet hole, and leak stopper. 597

91 Martin, Claude, London.—Self-canting anchors; chain cables; model of H. M.'s turret ram "Alexandra." 597

92 Gümpel, Charles Godfrey, London.—Ship's rudder. 597

92*a* Cooke, Joseph, & Co., Midland Davy Lamp Works, Birmingham.—Miners' safety lamps. 120

92*b* Bainbridge, Emerson, Duke of Norfolk's Collieries, Sheffield.—Miners' safety lamp. 120

(N.B.—Certain exhibits of machinery from Great Britain are installed in the Main Building, and catalogued in Part I.

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

CANADA.

(*Central Aisle, Columns 1 to 7.*)

Metal, Wood, Stone, Cloth, Clothing-working Machinery.

Machines, Tools, and Apparatus of Mining, Metallurgy, Chemistry, and the Extractive Arts.

1 Hannahan, Joseph, Ottawa, Ont.—Rock-drilling bits. 500

3 Symonds, W. S., & Co., Halifax, N.S.—Gold quartz crushing machine. 505

4 Freeland, R., Toronto, Ont.—Soap-making machinery. 508

Machines and Tools for Working Metal, Wood, and Stone.

9 Kennedy, W., & Son, Owen Sound, Ont.—Facing and jointing planer. 510

11 Machine Co., Bowmanville, Ont.
a Turning lathe for wood, moulding machine, planing and notching machine. 510
b Metal turning lathe, planing machine. 515

14 Waterous Engine Works Co., Brantford, Ontario, Canada. — Twenty-horse power portable saw mill; capacity, six to ten thousand feet per day; shipping weight, eight tons. A strictly portable saw mill, practical, efficient, economical, and durable; obtained first medal and diploma at Exposition Santiago Chili, South America, September, 1875. 510

15 Mitchell & Teeple, Harriston, Ont. Wood-sawing machine. 510

18 McKecknie & Bertram, Dundas, Ont. —Wood-moulding machine. 510

20 Harris, James, & Co., St. John, N. B.
a Shingle machine. 510
b Register grates. 513

21 Lordly, Howe, & Co., St. John, N. B. —Turning lathe. 510

22 Nelson, Thomas, & Co., Dundas, Ont.—Cast iron water pipe. 513

23 Campbell, George, Toronto, Ont.—Portable saw forges. 514

24 Mitchell, R., & Co., Montreal, Q.—Lead tube bending machine. 515

26 McKecknie & Bertrand, Dundas, Ont.—Iron turning lathes, radial drill, slotting and iron shaping machines. 515

27 Tool Co., Hamilton, Ont.—Engine lathe, bolt cutter, drilling machine, portable radial drill, steam hammer. 515

29 Stephenson, M., Stratford, Ont.—Hand-drilling machine, for drilling both the fish holes in railroad iron at the same time in their exact position and without measuring, effecting a great saving in labor. 515

30 Smark, J., Brockville, Ont.—Drilling machines. 515

31 Fisher, J., & Co., Kincardine, Ont.—Clipping boiler plate machine. 515

32 Mitchell, R., & Co., Montreal, Q. —Lead tube bending machine. 515

33 Dunn, P., Cote St. Paul, Q.—Wire nail machine. 515

34 McFarlane, Thum, & Co., Fredericton, N. B.—Vertical power drill. 515

35 Coore, E. R. N., & Co., St. John, N. B.—Nail machine. 515

37 Bulmer & Sheppard, Montreal, Q.—Brick machine. 517

37*a* Tiffany, Geo. S., London, Ont.—Tile and brick machine. 517

Machines and Implements of Spinning, Weaving, Felting, and Paper Making.

38 Powers, S. H., Woodstock, N. B.—Self-acting hand loom. 521

39 Becker, A., Montreal, Q.—Sample of card clothing. 522

40 Boeck, Chs., Toronto, Ont.—Combing machines for brush makers. 524

Machines, Apparatus, and Implements used in Sewing and Making Clothing and Ornamental Objects.

44 Wilkie & Osborne, Guelph, Ont.—Sewing machines. 531

45 Wanzer & Co., Hamilton, Ont.—Sewing machines. 531

48 St. Amand, O., Quebec, Q.—Sewing machine. 531

49 Lawlor, J. D., Montreal, Q.—Sewing machines. 531

51 Williams, C. W., Manufacturing Co., Montreal, Q.—Sewing machines. 531

52 Harris, Th., Montreal, Q.—Sewing machine needle sharpener. 531

55 Popham, James & Ebenezer, Montreal, Ca. — Popham steam peg breaker — now being patented both in Canada and the United States—will cut off and entirely remove the peg-ends that have so long troubled manufacturers and dealers in boots and shoes, and leaves the inside of the sole as free from peg-points and nails as the outside. Attached to the machine will be found samples of the work done, a close inspection of which will conclusively demonstrate the reality of the improvement. 533

56 Clarke, R., St. John, N. B.—Lasts. 533

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

Engines, Boilers, Pumps, Railway Plant and Appliances.

Motors and Apparatus for the Generation and Transmission of Power.

62 Tandy, G. J., Kingston, Ont.—Steam boiler. 550

63 McKay, Adam, Dartmouth, N. S.—Model steam boiler. 550

64 Kennedy, Wm., & Sons, Owen Sound, Ont.—Water-wheel. 551

65 Tuerk, F. W., Berlin, Ont.—Working model water-wheel. 551

66 Barber & Harris, Meaford, Ont.—Water-wheel. 551

67 Goldie & McCulloch, Galt, Ont.
a Turbine water-wheel. 551
b Steam engine. 552

69 Harris, J., & Co., St. John, N. B.—Water-wheel. 551

70 Fleck, A., Ottawa, Ont.—Oscillating steam engine. 552

71 Thomson Williams' Manufacturing Co., Stratford, Ont.—Stationary engine. 552

72 Martin, Chs., Belleville, Ont.—Vertical steam engine. 552

75 Piper, Thos., Hamilton, Ont.—Model four-cylinder engine. 552

77 Brush, Geo., Eagle Foundry, Montreal, Ca.—Portable steam hoisting engine, for use on wharves, in mines, quarries, coal yards, etc., and erection of buildings; is very compact and easily handled; all levers and working parts being within easy reach of the driver, without moving from his post. 552

83 Fleming, Geo., & Sons, St. John, N. B.—Oscillating engine. 552

85 Smith, J. G., Dartmouth, N. S.—Miniature steam engine. 552

86 Dixon, Smith, & Co., Toronto, Ont.—Belting. 553

87 Sandall, John, Moncton, N. B.—Valve link motion. 553

91 McKeough, J. W., Chatham, Ont.—Brass dome. 555

92 Morrison, James, Toronto, Ont.—Steam, vacuum, hydraulic gauges. 555

93 Piper, Thos., Hamilton, Ont.—Steam boiler detector gauge. 555

94 Myers, S., & Son, St. John, N. B.—Governor. 555

Hydraulic and Pneumatic Apparatus, Pumping, Hoisting, and Lifting.

95 Patrick, Rob., Galt, Ont.—Rotary pump. 560

96 Cox, H. W., Peterborough, Ont.—Rotary force pumps. 560

97 Oakville Manufacturing Co., Oakville, Ont.—John Dayer, Andrew J. Bounsall, and George C. Bounsal, foundry and iron pump manufactory; force, well, and cistern pumps. 560

100 Bowes, E., & Son, Stratford, Ont.—Force pumps. 560

101 Webster, Stephen, St. Catherines, Ont.—Oil-storing tank. 560

102 Smart, J., Brockville, Ont.
a Cistern, well, and force pump. 560
b Jack screws. 563

105 Barnes, C. C., St. John, N. B.—Rotary pump. 560

106 Jones, C. C., Fredericton, N. B.—Barrel pump. 560

107 Wilson, Clarke, & Co., Yarmouth, N. S.—Ship pump. 560

111 Small & Fisher, Woodstock, N. B.—Barrel lifter. 563

112 Dailey, M. E., Ottawa, Ont.—Telescope trestle. 563

113 Ronald, John D., Chatham, Ont.—Steam fire engine, hose cart and hose. 564

117 Murphy & Harle, Montreal, Q.—Pneumatic fire extinguisher. 564

118 Bustin, Robert, St. John, N. B.—Fire escape. 564

119 Smith, H. F., Toronto, Ont.—Soda water fountain. 565

120 Sells, H., Vienna, Ont.—Cider mill and press. 565

121 Brazil, P., Barrie, Ont.—Cider mill and press. 565

122 Date, John, Montreal, Q.—Diving apparatus. 567

123 Pitts, D. H., Halifax, N. S.—Submarine armor. 567

Railway Plant, Rolling Stock, and Apparatus.

124 Meyer, F. W. A., Montreal, Q.—Drawing of engine and tender. 570

127 Knolt, Kennard, Petersville, L., Ont.—Cattle car and refrigerating tender. 571

128 Brydon, Robert, Newberg, Ont.
a Grain car. 571
b Grain car door fastener. 573

129 Muir, Thomas, London, Ont.—Rail joint protector and car-coupler. 572

130 McNabb, M.—Car coupler. 572

131 Chrisholm, R. K., Oakville, Ont.—Car coupler. 572

132 Chisholm, R. N., Oakville, Ont.—Car coupling. 572

132*a* Griffin, J. K., Toronto, Ont.—Model of car coupler. 572

133 Richard, E. O., & Bro., St. Roch, Q.—Car brakes and coupling. 572

134 Car Wheel Co., Toronto, Ont.—Car wheels and axles. 573

136 Harris, J., & Co., St. John, N. B.—Railroad car wheels and axles. 573

136*a* Osborne, Henry, St. Andrews, Q.—Model of car axle. 573

137 Von Staden, W. G., Strathroy, Ont.—Bent posts and rafters for railroad cars. 574

140 Nunn, W. C., Belleville, Ont.—Railway telegraph signals, with revolving and fixed lamps, and electric gong. 575

143 Miller, Flanges Co., Fredericton, N. B.—Locomotive flanges. 576

144 Ramsay, R. H., Cobourg, Ont.—Ramsey's car truck shifting apparatus, patented March 14, 1876. The power required to run a car on the level track is sufficient to remove the trucks, and re-

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13-15.

place them again. Expense reduced from twelve thousand dollars to one hundred. Correspondence with railroad companies invited. 576

147 Colford, Henry, Halifax, N. S.—Spark arresters for house, factory, and locomotive. 576

Machines used in Preparing Agricultural Products.

148 Rochelle, L. N. & A. H., St. Anselme, Ont.—Magnetic separator and dryer. 580

148*a* Wilson, J. P., Montreal, Q.—Vacuum pan. 581

149 Copping, G. H., Toronto, Ont.—Lozenge machine. 582

151 Scales, Rob., Toronto, Ont.—Evaporator and tobacco lump machine. 584

152 Adams, J. L., Montreal, Q.—Tobacco cutter. 584

153 Marengo, J. & A., Montreal, Q.—Cigarette machine. 584

Aerial, Pneumatic, and Water Transportation.

155 Herald, D., Gore's Landing, Ont.—Canoes. 594

156 English, W., Peterborough, Ont.—Hunting canoe. 594

159 Power, W., & Co., Kingston, Ont.—Ship models. 594

160 Lapierre, Zephirin, Isle of Orleans, Q.—Sailing boat rigged, rowing boat, winter canoe. 594

163 Baldwin, P., St. Roch, Quebec, Q.—Ship model. 594

164 Dunn & Samson, Levis, Q.—Ship models. 594

165 Rose, N., Levis, Q.—Ship models. 594

166 Dinning, H., Quebec, Q.—Ship models. 594

167 Marquis, F. H., Levis, Q.—Ship models. 594

168 Auger, E., Quebec, Q.—Ship models. 594

169 Cotman, W., Quebec, Q.—Ship models. 594

170 Samson & Co., Quebec, Q.—Ship models. 594

171 Gingras, E., Quebec, Q.—Ship models. 594

172 Oliver, J., Quebec, Q.—Ship models. 594

173 Oliver, F. H., Quebec, Q.—Ship models. 594

174 Quebec Advisory Board, Quebec, Q.—Ship models. 594

175 Sewell, E. W., Levis, Q.
a Winter canoe, drawings of safety ship, ship and yacht models. 594
b Drawing of steamship for Canadian trade. 595

176 Robitaille, Th., Quebec, Q.—Complete cod-fishing boat; "Micmac" bark canoe. 594

177 Charland, W., Levis, Q.—Ship model. 594

178 Grenier, Frs., Isle of Orleans, Q.—Pilot boat. 594

179 Girard, A., Murray Bay, Q.—Poplar canoe. 594

182 Ross, Elizah, Portland, N. B.—Single scull racing boat, spoon-set oars, set single scull oars, set oars, life boat model. 594

183 Barrill, Jos., Yarmouth, N. S.—Ship model, improved gear for reefing sail. 594

184 Moreley, E., Darmouth, N. S.—Ship models. 594

185 Garmount, Wm.—Ship model. 594

186 Dailey, M. E., Ottawa, Ont.—Model ocean ship. 595

187 Merritt, Abel, Chatham, Ont.—Propeller boat. 595

188 Richelieu & Ontario Navigation Co., Montreal, Q.—Steamboat models. 595

189 Wildgoose, F. H., Montreal, Q.—Steamboat model. 595

190 Meyer, F. W. A., Montreal, Q.—Drawing longitudinal section steamboat. 595

192 Beautey, H., Quebec, Q.—Dragging or grappling apparatus. 596

193 Carroll, S., Widden, Ont.—Marine compass, automatic ship trimmer. 597

194 Pitts, D. H., Halifax, Ont.—Ship windlass and cable brake. 597

195 Mosler, Geo. J., Maitland Island, N. B.—Ship wheel. 597

196 Harris, James, & Co., St. John, N. B.—Capstan. 597

197 Pitts, D. H., Halifax, N. S.—Mast hoop clamp, cable brake, metal jib hank. 597

198 Couvrette & Frigon, Montreal, Q.—Stern of ship (model). 597

198*a* Harris, James, & Co., St. John, N. B.—Ships' iron knees, straps. 284

198*b* Coldbrook Rolling Mills Co., St. John, N. B.—Cut and clinch nails, spikes and knees. 284

198*c* Weddleton, J. B., Yarmouth, Ont.—Head earrings for ships. 284

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

FRANCE.

(*North of Central Aisle, Columns 1 to 7.*)

Metal, Wood, Stone, Cloth-working Machinery, Motors.

Machines, Tools, and Apparatus of Mining, Metallurgy, Chemistry, and the Extractive Arts.

1 Fleury, Jules Martin, Paris.—Grinding mill. 505

2 David Bros., Charleville (Ardennes).—Portable forges. 506

3 Perret, Michel, Paris.—Apparatus for combustion. 506

4 Goyard, F., Paris.—Crucibles and furnaces. 506

6 Enfer, Ernest, Paris.—Portable forges; forges for the laboratory; gas pressure bellows apparatus; bellows. 506

7 Chenaillier, Paris.—Universal evaporator. 506

8 Faure & Kessler, Clermont-Ferrand.—Apparatus for the concentration of sulphuric acid. 508

9 Desmoutis, Quennessen, & Le Brun, Paris.—Platina apparatus. 508

10 Pelouze, E., & Audouin P., Paris.—Condenser for gas works. 509

11 Lascole, A., Paris.—Gas apparatus. 509

Machines and Tools for Working Metal, Wood, and Stone.

12 Arbey, F., Paris.—Wood-working machinery. 510

13 Branche, H., Paris.—Machines and tools. 510

14 Rous, Edmond, Paris.—Tools of precision. 510

15 Dugoujon, sr., Paris.—Saws. 510

17 Limet-Lapareille & Co., Paris.—Files. 515

18 La Quintinie, A., & Co., Paris.—Machines and tools for goldsmiths; designs of machines for soap, confectionery, and matches. 515

20 Durand, F., & Marais, Paris.—Brick machines. 517

Machines and Implements of Spinning, Weaving, Felting, and Paper Making.

21 Guinet, Ant., & Co., Lyons.—Silk-weaving looms. 520

22 Richard, J. S., Paris.—Machines and looms for textiles. 521

23 Pierron & Dehaitre, Paris.—Weaving machine. 522

24 Couture, Paris.—Breaking machine for textile fabrics. 523

25 Maigrou, F. A., Paris.—Rope machine. 524

26 Deny, Louis, Paris.—Open copper cylinder and refiner for paper manufacture. 525

27 Thomine, F., Paris.—Machine for the manufacture of fishing nets. 527

Machines, Apparatus, and Implements used in Sewing and Making Clothing and Ornamental Objects.

28 Legat, D., Paris.—Machine for sewing straw hats. 531

29 Cornely, E., Paris.—Embroidering machines. 531

Machines and Apparatus for Type Setting, Printing, Stamping, Embossing, and for Making Books, and Paper Working.

29*a* Alauzet, Paris.—Printing machines. 540

30 Coblence, Paris.—Electrotypes. 541

31 Derriey, Ch., Paris.—Typography, engraving, and electrotypes. 542

31*b* Derriey, Ch., Paris.—Printing type. 542

32 Tucker, Paris.—Types and cuts. 542

33 Lecerf, L., Paris.—Printing materials. 543

34 Vital, A., Paris.—Rollers for lithographic presses. 543

Motors, and Apparatus for the Generation and Transmission of Power.

35 Leroy, François, Marseilles.—Models of marine boilers. 550

36 Fontaine, Hippolyte, Paris.—Steam engines. 552

37 Electro-Magnetic Machine Manufacturing Co., Paris.—Gas machines, galvano-plastic machine, machine to transmit power. 552

38 Mignon & Rouart, Paris.—Noiseless gas motors. 552

39 Chauveau, Paris.—Steam engines. 552

40 Breguet, Paris.—Electro-magnetic machines. 552

41 Rous, Edmond, Paris.—Hermetic clasps for oil cups, etc. 553

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13-15.

Motors, Hydraulic Apparatus, Railway Plant, Agricultural Machinery.

42 Welby, Rouen.—Belting. 553
43 Jacob, Ch. Moise, Paris.—Oiling cushions. 553
44 Domange, Lemierre, & Co., Paris.—Belting. 553
45 Perreaux, L. G., Paris.—Screw propeller. 554
45*a* Bourdin, Paris.—Motor for sewing machines. 554
46 Dechamp, C., Lyons.—Safety boiler apparatus. 555
47 Cazaubon, Dominique, Paris.—Cocks for steam, water, and gas pumps, and water closets. 555
48 Lion & Guichard, Paris.—Metallic manometer. 555
49 Macabies, Paris.—Automatic feeder. 555
50 Rigollot, Paris.—Cocks for water, steam, and gas. 555
50*a* Serrin, Paris.—Regulator for electric light. 555
51 Cuau, Paris.—Boiler injector. 555
52 Coux des Roseaux, Asnieres, near Paris.—Automatic oil cups for steam machines; fire-proof insulator for steam pipes. 555

Hydraulic and Pneumatic Apparatus, Pumping, Hoisting, and Lifting.

53 Neut, L., & Dumont, L., Paris.—Centrifugal pumps. 560
54 Garlaudat, Paris.—Refrigerating apparatus. 562
55 Enfer, A., jr., Paris.—Portable forges and bellows. 562
56 David Bros., Charleville (Ardennes).—Portable forges. 562
57 Enfer, Ernest, Paris.—Portable forges, bellows, gas apparatus. 562
58 Morane, jr., Paris.—Hydraulic press for candle manufacture. 563
59 Chrètien, J., Paris.—Automatic apparatus for unloading coal. 563
60 Rous, Edmond, Paris.—Pulleys and tackles. 563
61 Mégy, Echeverria, & Bazan, Paris.—Elevators, regulators, etc. 563
62 Gaussart, Epernay (Marne).—Machines for charging wines with gas. 564
63 Constant, Port-a-Binson (Marne).—Wine press. 565
64 Appert-Mandart, Reims (Marne).—Hooks and clasps for champagne. 565
65 Lejeune, Epernay (Marne).—Machine for charging wines with gas. 565
66 Renard, Epernay (Marne).—Wires and strings for champagne. 565
67 Paillet & Co., Epernay (Marne).—Corks. 565
68 Cazaubon, D., Paris.—Soda water machines; siphons. 565
69 Freal, Epernay (Marne).—Bottling machines. 565
70 Gervais, E., Bordeaux.—Bottling machines. 565
71 Guéret Bros., Paris.—Soda water machine. 565
72 Logette, Ay (Marne).—Clasps for bottles and machines for applying. 565
73 Maldine, H., Paris.—Soda water machines, siphons. 565
74 Maurice, Widow, & Guenin, Epernay (Marne).—Bottling machines. 565
75 Michelot, jr., Epernay (Marne).—Stands and cases for wines. 565
76 Thessier, Fevre, Paris.—Table apparatus for Seltzer water. 565
77 Tricourt, A., Reims (Marne).—Wine-making machines. 565
78 Mestre, A. de, Bordeaux.—Bottling machines. 565
79 Mondollot, A., Paris.—Soda water machine, siphons. 565
80 Cicile-Larbre, Reims (Marne).—Bottle cleaners. 565
81 Durafort, Paris.—Soda water machine. 565
82 Fisse-Thirion, & Co., Reims.—Bottling machine. 565
83 Rigollot, Paris.—Cocks for water, steam, and gas. 566
84 Perreaux, L. G., Paris.—Rubber valves. 566
85 Giffard & Berger, Paris.—Ice machines. 568
86 Carrè, E., Paris.—Ice machine. 568

Railway Plant, Rolling Stock, and Apparatus.

87 Edoux, Leon, Paris.—Special system for mountain railroads. 570
88 Joliot, S., Vincennes.—Car brakes. 572
89 Le Bas, Paris.—Automatic clutch. 572
90 Arbel Lucien, Rive-de-Gier (Loire).—Forged iron wheels for locomotives and cars. 573
91 Brunon Bros., Rive-de-Gier (Loire).—Wheels manufactured by hydraulic pressure. 573

Machines used in Preparing Agricultural Products.

92 Aubin & Baron, Paris.—Bolting mill. 580
93 Durrschmidt, Lyons.—Emery millstones. 580
93*a* Deplanque, Son, sr., Maison-Alfont (Seine).—Emery millstones. 580
94 Beyer Bros., Paris.—Soap and chocolate machines. 582
95 Hermann, G., Paris.—Chocolate machines. 582
96 Durvie, Ivry-la-Bataille (Eure).—Mechanic kneading machine. 582
97 Beyer Bros., Paris.—Soap and chocolate machines. 585

Aerial, Pneumatic, and Water Transportation.

98 General Transatlantic Co., Paris.—Model of the steamship "Pereire." 595

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

GERMANY.

(*South of Central Aisle, Columns 1 to 7, and Pump Annex.*)

Metal, Wood, Stone, Cloth, Paper-working Machinery, Pumps, etc.

Machines, Tools, etc., of Mining, Chemistry, etc.

1 Sparre, Julius von, Dortmund.—Model of a drill. 500

2 Wünschmann, Reinh., Leipsic.—Candle-making machine. 508

Machines and Tools for Working Metal, Wood, and Stone.

3 Kahlke & Detlefsen, Hamburg.—Cutting machine and apparatus for cleaning boiler tubes. 515

3*a* Schäffer & Budenberg, Buckau.—Polishing machines. 516

4 Schlickeysen, C., Berlin.—Brick, turf, cement, and clay machines. 517

5 Loeff, Paul, Berlin. — Model of a kiln for bricks, etc. 517

Machines and Implements of Spinning, Weaving, etc.

6 Windmüller & Meynen, Zwischenahn, Oldenburg.—Wooden spools. 520

8 Grothe, H., Berlin.—Models. 521

9 Bodemer, Georg, Zschopau.—Apparatus for spinning. 521

10 Beuthner Bros., Berlin.—Carders. 522

11 Mechanical Card Factory, Mittweida.—Cards. 522

Machines, etc., used in Sewing, Making Clothing, etc.

12 Huhn, Heinr., & Co., Aix-la-Chapelle.—Needles. 530

13 Lammertz, Leo., Aix-la-Chapelle.—Needles. 530

14 Bellè, R., Aix-la-Chapelle.—Needles. 530

15 Pastor, Ph. H., Sons, Burtscheid, near Aix-la-Chapelle.—Needles. 530

16 Zimmermann, Jos., Aix-la-Chapelle.—Needles. 530

17 German Sewing Machine Factory, Frankfort-on-Main.—Sewing machines. 531

18 Müller, Cl., Dresden.—Sewing machines. 531

19 Kiehle, R., Leipsic.—Sewing machines. 531

20 Hamburg-American Sewing Machine Factory Joint Stock Co.—Sewing machines, etc. 531

21 Schmalz, F. G., Altenburg.—Machines for making gloves. 532

22 Hemmer, L. Ph., Aix-la-Chapelle.—Fulling and washing machine. 534

23 Dausch, J. G., Munich.—Instruments and apparatus for watchmakers. 535

Machines for Printing, Making Books, Paper Working, etc.

26 Traiser, Carl, Darmstadt. — Ruling machine. 541

27 Lotz, Ferd., Offenbach-on-Main.—Lithographic machinery. 543

Motors, Power Generators, etc.

29 Schilling, F. A., Bremerhaven.—Steam engines. 552

30 Gas Motor Factory, Deutz. — Gas motors. 552

31 Blancke, C.W. J., & Co., Merseburg.—Pyrometer, steam gauges, vacuum meters, etc. 555

32 Bodemer, Georg, Zschopau, near Chemnitz.—Regulators. 555

33 Schäffer & Budenberg, Buckau, near Magdeburg.—Steam gauges, pyrometers, lubricators, etc. 555

34 Blanke, Em. A. R., Frankfort-on-Oder.—Steam packing, etc. 555

35 Gehrckens, C. Otto, Hamburg.—Stuffing boxes, steam packing. 555

36 Wertheim, Louis, Bornheim, near Frankfort-on-Main.—Steam packing. 555

Hydraulic and Pneumatic Apparatus.

37 Allèoud, Emanuel, Metz.
a Siphon pumps. 560
b Mechanical lever. 563

38 Weyhe, Wilh., Bremen. — Rotary pumps. 560

39 Royal Saxon Fire Extinguisher Co., Leipzig. — Fire extinguishing apparatus. 564

40 Schultz, Ernst, Aschaffenburg.—Atmospheric apparatus for firemen, miners, etc. 564

Railway Plant, Rolling Stock, etc.

42 Glöeckner Bros., Tschirndorf, near Halbau.—Blocks for brakes. 572

43 Camozzi & Schlösser, Frankfort-on-the-Main.—Railway switch. 574

43*a* Schäffer & Budenberg, Buckau.—Spark catchers. 576

Machines used in Preparing Agricultural Products.

43*b* Israel Bros., Dresden.—Mill and grind stones. 580

43*c* Osenbruck & Co., Hemelingen, near Bremen.—Cigar moulds. 584

Aerial, Pneumatic, and Water Transportation.

44 Dücker, Baron F. F. von, Bückeburg.—Drawing of a wire-rope railway. 590

46 Hamburg-American Steamship Co., Hamburg.—Model of a mail steamship. 595

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

Ores, Metallurgical Products, Weapons, Railway Plant.

Minerals, Ores, Stone, Mining Products.

47 Krupp, Fried., Essen. — Ores and raw products. 100

Metallurgical Products.

48 Krupp, Fried., Essen. — Samples of fractured iron and steel. 111

Weapons, etc.

49 Krupp, Fried., Essen. — Cannon and shot. 267

Railway Plant, Rolling Stock, etc.

50 Krupp, Fried., Essen. — Axles, wheels, pistons, springs, etc. 573

AUSTRIA.

(*South of South Aisle, Columns 1 to 5.*)

Mining, Weaving, Agricultural Machinery, Motors.

Machines, Tools, etc., of Mining, Chemistry, etc.

1 Rosenegger, Josef, Oberalm, near Hallein, Salzburg.—Model of a glass-melting furnace, cylinder furnace. 506

Machines and Implements of Spinning, Weaving, etc.

3 Schram, Willibald, Vienna.—Jacquard looms. 521

4 Surber, J. Jacques, Vienna.—Weavers' reeds and heddles. 527

Motors, Power Generators, etc.

5 Hock & Co., Julius, Vienna.—Petroleum motor with pump. 550

6 Popper, Joseph & David, Vienna. —Patent boiler incrustation preserver, boiler fittings. 550

Railway Plant, Rolling Stock, etc.

7 Tagleicht, Karl, Vienna.—Locomotive spark catcher and flue. 576

Machinery used in Preparing Agricultural Products.

8 Vojtéchovsky & Reznicek, Prague. —Machines for candy production. 582

SWITZERLAND.

(*Section 1, Pump Annex.*)

Railway Appliances.

Motors, Power Generators, etc.

1 Sulzer Bros., Winterthur, Canton Zurich.—Model of a new system of reversing gear for valve engines. (*Pump annex.*) 555

1*a* Pictet, Raoul, & Co., Geneva.—Machine for producing ice with the aid of anhydrous sulphurous acid. 568

Railway Plant, Rolling Stock, etc.

2 Swiss Manufacturing Co., Neuhausen, near Schaffhausen.—Model of an apparatus for heating railway carriages. (*Pump annex.*) 571

Machines pertaining to watchmaking are exhibited in Swiss section, Main Building, and catalogued in that volume.

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

BELGIUM.

(*North of North Aisle, Columns 7 to 18.*)

Metal, Cloth, Paper-working Machinery, Motors.

Machines, Tools, and Apparatus of Mining, Metallurgy, Chemistry, and the Extractive Arts.

1 Dubois, Wm. & François Joseph, Seraing, near Liége.—Drilling machine for mines, tunnels, etc. 500

2 Chaudron, Joseph, Brussels.—Apparatus for boring and tubing mining shafts. 501

3 Libotte, Nicholas, Gilly, near Charleroi.—Cages with system of parachute. 502

4 Muller & Co., Clermont, near Liége.—Safety fuse for miners. 502

5 Souheur, Arnold, Seraing, near Liége.—Safety lamps for coal mines. 502

6 Van Haecht, Emile, Haeren, near Brussels.—Models of fat-rendering works, with samples of stearine and oleine. 508

Machines and Tools for Working Metal, Wood, and Stone.

7 De Tombay, Auguste, Marcinelle, near Charleroi.
a Model of a trip-hammer. 514
b Model of steam shears. 515

8 Jullien & Jennar, Bomereé, near Charleroi.—Tuyere and axle. 514

9 Nicaise, Ch., & Co., and Gobert, Aug., La Louvière.—Machinery for making bolts. 516

Machines and Implements of Spinning, Weaving, and Paper Making.

10 Bède & Co., Verviers.—Wool cleaning machine. 522

11 Delrez, Felix, Verviers.—Cards. 522

12 Dethiou, Gilles, & Co., Verviers.—Cards. 522

13 Horstmans Bros., Liége.—Cards. 522

14 Martin, Célestin, Verviers.—Looms, mechanical winder, cards. 522

15 Martin, Th. J., Pisseroule-Dison, near Verviers.—Cards. 522

Machines, Apparatus, and Implements used in Sewing and Making Clothing and Ornamental Objects.

16 Turner, B. B., & Co., Brussels.—*a* Festooning and embroidering machines. 530
b Sewing machines for gloves, straw hats, buttonholes, etc. 531

17 Joint Stock Society for the Manufacture of Machines and Tools of Precision, Saint Josse-ten-Noode.—Sewing and knitting machines. 531

Machines and Apparatus for Typesetting, Printing, Stamping, Embossing, and for Making Books, and Paper Working.

18 Derkx-Schlopfer, I. F., Anderlecht, near Brussels.—Wooden printing types. 542

Motors, Power Generators, etc.

19 Van den Kerchove, P., Ghent.—Corliss and Rider engines. 552

20 Dolne, L., & Co., Verviers.—Belting. 553

21 Horstmans Bros., Liége.—Belting. 553

22 Versé-Spelmans, Brichot, Ant., & Co., Brussels.—Belting. 553

23 Dervaux, Alfred, Brussels.—Feeding apparatus for boilers. 555

Hydraulic and Pneumatic Apparatus.

24 Moreau, Léon, Brussels.—Rotary pumps. 560

24*a* Banolas, R., & Co.—Fire extinguishers. 564

Railway Plant, Rolling Stock, etc.

25 Durieux & Co., Louvain.—Wheels for cars, carriages, etc. 573

26 Mabille, Valère, Mariemont.—Railway plant. 573

27 Legrand, Achille, Hyon, near Mons.—Sleepers and cushions for mining railways. 573

28 Léonard, F. L. J., Fayt, near Seneffe.—Railway brake, signals, and gates. 575

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

NETHERLANDS.

[*The Machinery Exhibit of the Netherlands is installed in the Main Building, and catalogued in Part I.*]

SWEDEN.

(*North of North Aisle, Columns 7 to 16.*)

Stone, Metal, Wood, Cloth, Paper-working Machines, Motors.

Machines, Tools, and Apparatus of Mining, Metallurgy, Chemistry, and the Extractive Arts.

1 Nilson, G., Eskilstuna.—Jacks. 503

1*a* Wiklund, W., Stockholm.—Centrifugal pump. 504

2 Alsing, J. R., Stockholm.—Model of cylinder for crushing hard materials. 505

6 Soderqvist, R., Goteborg.—Gas apparatus. 509

Machines and Tools for Working Metal, Wood, and Stone.

7 Bergström, J. W., Stockholm.—Screw-cutting machine. 510

8 Bolinders, J. & C. G., Machine Manufacturing Stock Co., Stockholm.
a Sawing machines. 510
b Machines for making metal cartridges; emery wheels. 515

9 Von Essen, H. H., Baron, Tidaholm.—Iron for turning veneer. 510

10 Stridsberg & Biork, Thorsträlla.—Blades for frame, circular, timber, wood, and pit saws; machine knives, trowels, ship scrapers, plane irons, etc. 510

11 Fagersta Manufacturing Co., Westanfors.—Saw blades. 510

12 Sandvikens Iron Works (limited), Sandviken.—Piston rod for steam hammer. 514

14 Brehmer, E. F. A., Stockholm.—Drilling machine. 515

15 Köping Mechanical Works Co. (limited), Köping.—Turning machine. 515

15*a* Samuelson, S. H., Foskefors, Rada.—Machine for making hollow peat bricks. 517

Machines, Apparatus, and Implements used in Sewing and Making Clothing and Ornamental Objects.

16 Hedlund, Joh., Eskilstuna.—Sewing machines. 531

17 Husquarna Arms Manufacturing Co. (limited), Jönköping.—Sewing machines. 531

Machines for Printing, Making Books, Paper Working, etc.

19 Brehmer, E. F. A., Stockholm.
a Paging and ticket counting machines, date stamps, etc. 542
b Paper-cutting machine. 546

Motors, Power Generators, etc.

20 Atterberg, A. J., Hagforsen, Rada.—
a Drawings of turbines. 551
b Drawing of blast engine. 552

21 Wenström, W., Orebro.—Drawing of a turbine. 551

22 Kristinehamn Machine Manufacturing Co., Kristinehamn.—Marine steam engine, tank engine. 552

24 Köping Mechanical Works (limited), Köping.—Cast iron cylinders for a sixty-horse power propeller steam engine. 552

27 Motala Iron & Steel Co., Motala.—Compound marine engine. 552

27*a* Runqvist, C. R., Stockholm.—Oscillating steam engine governors. 555

28 Kockum Machine Manufacturing Co. (limited), Malmo.—Steam engines. 552

29 Sandvikens Iron Works Co. (limited), Sandviken.—Axles for propellers. 553

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

Hydraulic and Pneumatic Apparatus.

29*a* Wiklund, W., Stockholm.—Centrifugal pump. 560

31 Atterberg, A. J., Hagforsen, Rada.—Drawing of blowing engine. 562

Railway Plant, Rolling Stock, etc.

34 Bjorkman, C. R., Kristinehamn.—Drawing of a narrow-gauge locomotive. 570

34*a* Kristinehamn Machine Manufacturing Co. (limited), Kristinehamn.
a Locomotive. 570
b Railway car wheels. 573

37 Sandvikens Iron Works Co. (limited), Sandviken.—Railway wheels and axles. 573

38 Adelskold, C., Stockholm.—Model of an axle box for railway cars. 573

39 Arboga Foundry & Machine Manufacturing Co., Arboga.—Railway wheels, tires and axles. 573

41 Ekman, Carl, Finspang.—Railway wheels. 573

42 Fagersta Iron & Steel Works, Westanfors.—Railway axles and springs. 573

43 Köpings Machine Manufacturing Co. (Limited), Koping.—Axles. 573

45 Ankarsrums Works, Ankarsrum.—Railway switches. 574

46 Ostrand, Herrman, Helsingborg.—Drawing of a railway switch. 574

Aerial, Pneumatic, and Water Transportation.

47 Lesjofors Iron & Steel Co. (limited), Langbanshyttan.—Wire cables. 591

49 Royal Swedish Commission.—Models of fishing boats. 594

51 Kockum Machine Manufacturing Co., Malmo.—Models of steamers, and torpedo boat. 594

SPAIN.

[*Machinery Hall* (*Section F.* 1).]

Motors and Apparatus for the Generation and Transmission of Power.

1 Cases, Valero, Director of "La Primitiva," Madrid. Semi-portable steam-engine. 552

Hydraulic and Pneumatic Apparatus, Pumping, Hoisting, and Lifting.

2 Pando, Acha y Garcia, Sevilla.—Model of a wheel for drawing water from wells. 560

3 Cases, Valero, Valencia.—Wheel for drawing water from wells. 560

4 Mirapeix, Bartolomé, Barcelona.—Fire Hose. 564

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

NORWAY.

[*The Machinery Exhibit of Norway is installed in the Main Building, and catalogued in Part I.*)

ITALY.

(*North of North Aisle, Columns 16 to 19.*)

Metal, Cloth, Paper-working, Agricultural Machinery, Motors.

Machines, Tools, and Apparatus of Mining, Metallurgy, Chemistry, and the Extractive Arts.

1 Paresi, E. Giuseppe, Parma.—Furnace for lime. 506

2 Agrarian Committee of Chiavari.—Sulphur machine. 508

Machines and Implements of Spinning, Weaving, and Paper Making.

3 Ferrari, Bartolomeo, Parma.—Apparatus for silkworms. 520

Machines for Printing, Making Books, Paper Working, etc.

4 Perisi, Achille, & Son, Naples.—Pianografo-voltacarte, mechanical invention. 545

Motors, Power Generators, etc.

5 Zanini, Pasquale, Rome.—Steam machine. 550

Hydraulic and Pneumatic Apparatus.

6 Gasparini, Giacomo, Rome.—Hydraulic machine. 563

Agricultural Engineering and Administration.

7 Bertea, Stefano, Alessandria.—Lozenge machine. 582

Aerial, Pneumatic, and Water Transportation.

8 D'Allessandro, Benedetto, Benvenuto, Rome.—Life-preserver. 594

9 Villa, Cav. Ignazio, Milan.—Drawings of nautical machinery and architecture. 594

10 Origone, Paolo, Genoa.—Design for an iron steamer, and model in relief. 595

11 Zaffarini, Cav. Cesare, Ferrara.—Nautical machine. 597

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

BRAZIL.

(*North of North Aisle, Columns 16 to 21.*)

Machinery, Weapons, Hardware, Motors, Vessels and Appliances.

Chemical Manufactures.

1 Souza, Fausto de.—Metal fuses for artillery. 204

2 Pyrotechnical Laboratory, Rio de Janeiro.
a Fuses for artillery. 204
b Apparatus for guiding signal rockets. 205

3 Military Archives of Rio de Janeiro.—Pyrotechnical maps. 205

Weapons, etc.

4 Army Arsenal, Rio de Janeiro.
a Breech-loading rifle, and sword bayonet; revolver. 265
b Model of rifled brass field gun, with accessories. 266
c Mounted rifled gun and casemate; brass rifled gun and accessories; brass mortars; shot and shell, canister and grape for heavy ordnance; apparatus for guiding rockets, used as a projectile. 267
d Spears. 268

5 Arsenal at Bahia.—Drum used by the Brazilian army. 265

6 Arsenal in the Province of Rio Grande do Sul.—Weapons and articles used by the Brazilian army. 265

7 Navy Arsenal, Rio de Janeiro.
a Leather buckets for artillery service. 266
b Leather cartridge boxes for heavy ordnance. 267

Hardware, Edge Tools, Cutlery, and Metallic Products.

8 Silvino, Tripo di.—Hand tools. 280

9 Province of Minas Geraes.—Hand tools and instruments. 280

10 Arsenal of the Province of Bahia.
a Hand tools. 280
b Locks for naval and ships' stores. 284

11 Ipanema Iron Works.
a Hand tools. 280
b Imperial crown and cross of cast iron; samples of cast iron. 283

12 Army Arsenal, Rio de Janeiro.—Cast iron ventilator, and samples of cast iron. 283

13 Santos, Cauto dos.—Imperial crown of cast iron; samples of cast iron. 283

14 Bieunemback & Bro.—Chair of cast iron; samples of iron grates. 283

15 Slichal, Fabiano.—Horse shoes of different shapes. 284

Engineering, Architecture, Maps, etc.

16 Navy Yard at Rio de Janeiro.—Models of dry docks cut into the rock. 330

Machines and Tools for Working Metal, Wood, and Stone.

17 National Mint, Rio de Janeiro.—Stamping machine, edging machine, hand tools and instruments. 510

Machines and Implements of Spinning, Weaving, Felting, and Paper Making.

18 Rezende, Luiz de, Rio de Janeiro.—Machine for reeling and skeining silk, apparatus for counting the twist, samples of silk and cocoons. 520

Motors, Power Generators, etc.

19 Navy Arsenal, Rio de Janeiro.
a Models of engines for small monitors and mortar ships; steam engine to be used as motor at the pyrotechnical laboratory at Rio de Janeiro. 552
b Pulleys, pulley stand shafts, and flying wheels. 553

20 Army Arsenal at Rio de Janeiro.
a Iron drums and chairs for transmitting motion. 553
b Iron screw propeller and its cog wheel. 554

Hydraulic and Pneumatic Apparatus.

21 Costa, T. C. da.
a Pumps. 561
b Hydraulic ram. 563
c Nozzle fire plug. 564

22 Neves, F. Candido das, Rio de Janeiro.—Stop cocks. 566

23 Russell, B. G., Rio de Janeiro.—Lead pipes and hydraulic syphons, copper valve box. 566

Machines used in Preparing Agricultural Products.

24 Birrenback & Bros., Iron Works, Province of S. Paulo.—Hand mill. 585

Aerial, Pneumatic, and Water Transportation.

25 Navy Arsenal, Rio de Janeiro.—Models of iron clads, casemate and monitor ships, men of war and steam launches; models of corvettes and launches, designed by Trajano de Carvalho. 595

Arboriculture and Forest Products.

26 Navy Arsenal, Rio de Janeiro.—Samples of wood used for ship building. 600

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

ARGENTINE REPUBLIC.

(*North of North Aisle, Columns 21 to 23.*)

Cloth and Paper-working Machines, Vessels.

Machines and Implements of Spinning, Weaving, and Paper Making.

1 Provincial Commission, Province of Santiago del Estero.—Weaving loom. 522

Machines for Printing, Making Books, Paper Working, etc.

2 Estrada, Angel, Prov. of Buenos Ayres.—Samples of printing, types, electrotypes, corners, etc. 542

3 Cañarte, Bernardo R., Province of Buenos Ayres.—Album of typographic works. 542

Railway Plant, Rolling Stock, etc.

4 Gardella, Luis, Province of Buenos Ayres.—Plan of a rotary machine with boiler. 570

Aerial, Pneumatic, and Water Transportation.

5 Provincial Commission, Province of Corrientes.—Oars. 594

6 Office of the Harbor Master, Province of Buenos Ayres.—Model of mixed frigate, with wooden hull and auxiliary machine; models of steam lighter, pleasure steam yacht, and whaler. 595

7 Roibon, Federico, Province of Corrientes.—Model of rafts for crossing the "Paso de la Patria" during the war with Paraguay, in 1866. 596

RUSSIA.

(*North of North Aisle, Columns 22 to 25.*)

Metal, Stone, Cloth, Paper-working Machines.

Machines, Tools, etc., of Mining, Chemistry, etc.

1 Yevleff, Andrew, Moscow.—Goldbeater's skins and sample of leaf gold. 505

2 Administration of the Mining District in Western Poland.—Plan of gas smelting furnace. 506

3 Admiralty Electroplate Establishment, Cronstadt.—Specimens of metallic layers by electrotyping. 508

Machines and Tools for Working Metal, Wood, and Stone.

4 Lessner, Gustavus, St. Petersburg.—Planing, drilling, and turning machine. 515

5 Popoff, Basil, St. Petersburg.—Workbench. 515

6 Practical Technological Institute, St. Petersburg.—Lathes, planing, shaping, and drilling machines. 515

7 Smithery of the Port of St. Petersburg.—Apparatus for stamping bolts with threads; specimen of bolts, for armor plates and stamped row locks. 515

Machines and Implements of Spinning, Weaving, Paper Making, etc.

8 Tilzoff, John, Moscow.—Weaving slays. 520

Machines, etc., used in Sewing, Making Clothing, etc.

9 Rauer, Augustus, Warsaw.—Album of reduced patterns for tailors. 531

Machines for Printing, Making Books, Paper Working, etc.

10 Alissoff, Michael, St. Petersburg.—Type-writing machine, and new photo-lithographic process of music printing. 542

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

Machinery, Motors, Railway Plant, Vessels.

11 Goldberg, Isidor, St. Petersburg.—
a Printing types and electrotypes, stereotypes. 542
b Pasteboard cutter. 546

12 Lorchetes, Alfred, Liban.—Steganographic apparatus. 542

13 Wolf, Morris, St. Petersburg.—Sample book of typographical types. 542

Motors, Power Generators, etc.

15 Lesser, Gustavus, St. Petersburg.—Section of a steam cylinder with steam distributing apparatus. 550

16 Steam Engine Works, Port of Cronstadt.—Steam engine and boiler for a barge. 550

17 Lilpop, Rau, & Lovenstein, Warsaw.—Portable steam engine, ten horse power. 552

18 Pootilof Iron Works Co., St. Petersburg.—Steam engine. 552

18*a* Imperial Technical School, Moscow.—Model of a steam engine with parallel motion and regulator. 552

19 Admiralty Tyova Works, near St. Petersburg.—Chains and moving tackle. 553

20 Herezinesk, W., Warsaw.—Cordage transmission straps. 553

21 Hofmark, Bruno, St. Petersburg.—Wire transmission belt. 553

22 Miick, William, Warsaw.—Cordage transmission straps. 553

23 Tember, K., & Schovede, L., Warsaw.—Leather transmission belts. 553

24 Cohnfeld, S., St. Petersburg.—Automatic feeding apparatus. 555

Hydraulic and Pneumatic Apparatus.

26 Admiralty Tyova Works, near St. Petersburg.
a Dawnton's ship pump and fire pump. 560
b Diving apparatus. 567

27 Friedland, Michael, St. Petersburg.—Pumps, rotary system. 560

28 Liarsky, Nicolas, Smolensk.—Load roller. 563

29 Tretzer, Adolphus, Warsaw.—Fire engine. 564

30 Lange & Co., Moscow.—Fire engine hose. 564

31 Mick, William, Warsaw.—Fire engine hose. 564

32 Hesse, Charles, Riga.—Metal capsules. 565

Railway Plant, Rolling Stock, etc.

34 Lilpop, Rau, & Loevenstein, Warsaw.
a Bolts, screws, and other railway and car fittings. 571
b Buffer spring and coupling appliance; wheel and spring for railway carriages. 572

35 Shiloff, L. P., Moscow.
a Patent railway car lock. 571
b Railway signals. 575

37 Pootilof Iron Works Co., St. Petersburg.—Railway ties, axles, and wheels. 573

38 Abookoff Steel Foundry, near St. Petersburg.—Railway wheels, ties, and axles. 573

39 Russian Rail Manufacturing Co., Government of Riazan, District of Pronsk.—Railway ties, chairs, nails, bolts and nuts. 574

Machinery used in Preparing Agricultural Products.

41 Yosefow Sugar Manufacturing Co., Government of Warsaw.—Metallic sugar loaf form. 581

Aerial, Pneumatic, and Water Transportation.

42 St. Petersburg River Yacht Club.—Rowing boats. 594

43 Alexandroosky, ——, St. Petersburg.—Air bags for raising sunken vessels. 594

44 Makaroff, T. R. N., St. Petersburg.—Patent safety mats for instantly stopping leakage in ship bottoms. 594

45 Modeling Workshop in the Naval Museum, St. Petersburg.—Models of ships, yachts, and circular iron clads. 595

46 Russian Steamboat & Trade Co., Odessa.—Model of steam schooner for the coal trade. 595

47 Naval Museum, St. Petersburg.
a Models of a floating dock and graving dock in Cronstadt. 596
b Model of steering apparatus. 597

48 Engineers' Shop of the Port of St. Petersburg.—Apparatus for lowering boats and boat furniture. 597

49 Steam Engine Works, Port of Cronstadt.—Admiral's caboose. 597

51 Mast Maker's Shop, Port of Cronstadt.—Models of masts, etc. 597

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–15.

THE

PENNSYLVANIA RAILROAD

IS THE

Best Constructed and Best Equipped Railway on the American Continent.

THE ENTIRE LINE between New York and Pittsburg is laid with a double track of steel rails, weighing sixty-seven pounds to the yard. These rails are secured to oak ties, averaging 2600 to the mile of single track, and are connected between the ties, thus preventing all jarring or jolting.

THE ENTIRE LINE is ballasted with broken stone eighteen inches in depth, securing firmness and freedom from dust.

OVER ONE HUNDRED MILES of third track is laid at suitable intervals, affording facilities for keeping freight and way trains entirely out of the way of Express Trains.

ALL BRIDGES are of iron or stone, and are the most substantial structures of the kind on the continent.

THE BLOCK-SIGNAL SYSTEM, operated by telegraph, extends over the entire line and renders accidents almost impossible.

THE LOCOMOTIVE ENGINES AND PASSENGER CARS run are built according to standards established by the Company, of the very best materials, and are recognized models of efficiency, strength, and comfort.

ALL PASSENGER TRAINS are equipped with the Westinghouse Automatic Vacuum Brake, which has been pronounced by competent authorities in Europe and America the best safeguard ever introduced on railways.

THE HOTELS AND REFRESHMENT FACILITIES on the line are unexcelled.

THE SYSTEM of governing the business of the Company is perfect.

THE COMFORT AND CONVENIENCE of travelers are paramount considerations.

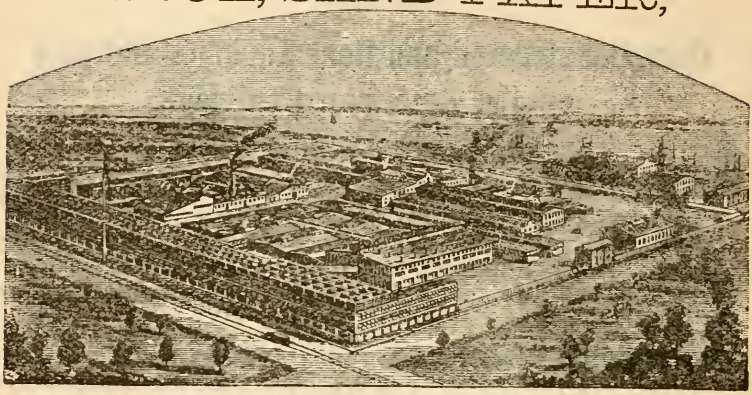
FRANK THOMSON,
General Manager.

D. M. BOYD, Jr.,
General Passenger Agent.

BAEDER, ADAMSON & CO.,

MANUFACTURERS OF

GLUE, SAND PAPER,



GROUND FLINT AND EMERY,

EMERY PAPER AND EMERY CLOTH,

CURLED HAIR AND STUFFING HAIR,

MOSS, COW-HIDE WHIPS, FELT HAIR, AND FELTING.

FACTORIES:
PHILADELPHIA, Pa.
NEWARK, N. J.
WOBURN, Mass.

STORES:
Philadelphia, 730 Market Street.
New York, 67 Beekman Street.
Boston, 143 Milk Street.
Chicago, 182 Lake Street.

SPRINGFIELD

FIRE AND MARINE

INSURANCE COMPANY

SPRINGFIELD, MASSACHUSETTS.

Cash Assets, $750,000. Capital Stock, $1,500.000.

DWIGHT R. SMITH, President.
SANFORD J. HALL, Secretary.
ANDREW J. WRIGHT, Treasurer.

WESTERN DEPARTMENT, CHICAGO, ILL.
A. J. HARDING, General Agent.

AGENCY FOR PROCURING UNITED STATES AND FOREIGN

PATENTS FOR INVENTIONS.

Also, Trade Marks, Copyrights, etc.

JOHN A. WIEDERSHEIM & CO.,

SOLICITORS OF PATENTS,

No. 110 FOURTH Street below Chestnut,

PHILADELPHIA.

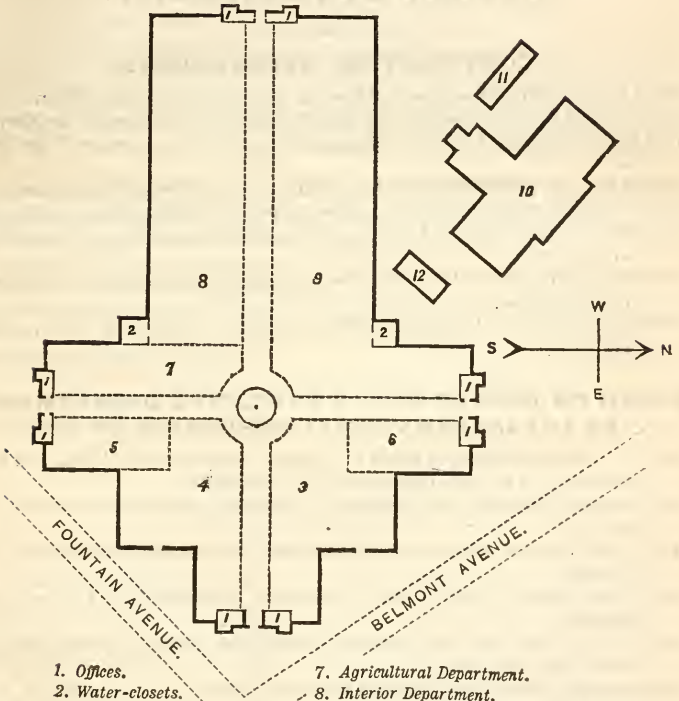
BRANCH OFFICE IN WASHINGTON, D. C.

BUSINESS PROMPT. TERMS REASONABLE. CONSULTATION WITHOUT CHARGE.

CALL OR SEND FOR BOOK OF INSTRUCTIONS.

THE UNITED STATES GOVERNMENT BUILDING.

Scale, 150 ft. to 1 in.



1. *Offices.*
2. *Water-closets.*
3. *War Department.*
4. *Navy Department.*
5. *Post Office.*
6. *Treasury Department.*
7. *Agricultural Department.*
8. *Interior Department.*
9. *Smithsonian Institution and Food Fishes.*
10. *United States Hospital.*
11. *Tent.*
12. *Laboratory.*

Total Length, 504 ft. *Width, 360 ft.* *Height, 50 ft.*

SPECIAL BUILDINGS.

EXHIBITION MADE BY THE UNITED STATES GOVERNMENT.

CONTRIBUTING DEPARTMENTS.

WAR DEPARTMENT.—Hon. J. DONALD CAMERON, Secretary of War.
NAVY DEPARTMENT.—Hon. GEORGE M. ROBESON, Secretary of the Navy.
TREASURY DEPARTMENT.—Hon. LOT M. MORRILL, Secretary of the Treasury.
INTERIOR DEPARTMENT.—Hon. Z. CHANDLER, Secretary of the Interior.
POST-OFFICE DEPARTMENT.—Hon. JAMES M. TYNER, Postmaster-General.
AGRICULTURAL DEPARTMENT.—Hon. FREDERICK WATTS, Commissioner of Agriculture.
SMITHSONIAN INSTITUTION.—Prof. JOSEPH HENRY, Director of Smithsonian Institution.
COMMISSION OF AMERICAN FOOD FISHES.—Prof. S. F. BAIRD, Commissioner.

BOARD ON BEHALF OF U. S. EXECUTIVE DEPARTMENTS AT THE INTERNATIONAL EXHIBITION OF 1876.

Col. S. C. LYFORD, Ordnance Corps, U. S. Army, Chairman of the Board, and Representative of the War Department at the Exhibition.
Rear Admiral THORNTON A. JENKINS, U. S. Navy, Representative of Navy Department.
Hon. R. W. TAYLER, First Comptroller Treasury, Representative of Treasury Department.
Hon. JOHN EATON, Commissioner of Education, Representative of Interior Department.
Dr. C. F. MACDONALD, Superintendent Money Order Bureau, Representative of Post-Office Department.
WILLIAM SAUNDERS, Superintendent Propagating Garden, Representative of Agricultural Department.
Prof. S. F. BAIRD, Assistant Secretary Smithsonian Institution, Representative of Smithsonian Institution, and Commissioner of American Food Fishes.
WM. A. DE CAINDRY, Secretary of the Board.

UNITED STATES GOVERNMENT BUILDINGS.

MAIN BUILDING, No. 51.

Architect, JAMES H. WINDRIM.—Size, Floor Area, 102,840 square feet.

This structure is situated at the intersection of Belmont and Fountain Avenues, is built in the form of a Latin cross, and is of framed white pine, unplaned, with two tiers of windows. It contains for exhibition contributions from the different Executive Departments of the United States Government.

ORDNANCE LABORATORY BUILDING, No. 54.

Architect, Col. T. T. S. LAIDLEY, Ordnance Corps, U. S. A.—Size, 53 feet by 23 feet.

This building is located north of Main Building, and is built of wrought iron, rivetted, covered with a light casing of wood. It is designed with the view of preventing the great loss of life that usually results from the demolition of a building of ordinary construction, by the explosion of even a small amount of powder. In the event of an explosion in this building, the roof and sides fall at once, and the iron frame is left standing, in order to shield the inmates from being crushed beneath the ruins. The building, as well as its contents, is on exhibition.

UNITED STATES ARMY POST HOSPITAL, No. 52.

Size, 35 feet by 39 feet, and Addition of 40 feet by 14 feet.

This Hospital is situated north of the Main Building, is two stories in height, and is intended to hold twenty-four beds. It is built of wood, and contains medical appliances of all kinds, including medicines, instruments, hospital stores, clothing, books, and furniture, models of hospitals, cars, boats, ambulances, etc., microscopical and other specimens. The construction of the building and its contents are on exhibition.

TRANSIT OF VENUS BUILDINGS.

This structure is situated southwest of Government Building, consisting of,—

1. Transit House.—Dimensions, 10 feet by 8 feet.
2. Photographic House.—Dimensions, 12 feet by 10 feet.
3. Equatorial House.—Dimensions, 11 feet in diameter.

All the instruments employed in observing and recording the phenomena of the late transit of Venus are so placed on exhibition that the various processes will be exemplified by practical workings.

WAR DEPARTMENT.

Signal Section.

SIGNAL SECTION.

The instruments exhibited in the Signal Service Section of the United States Army are all of American manufacture, and only such as have been devised for the signal service of the army by officers or enlisted men of the corps.

METEOROLOGICAL INSTRUMENTS.

The display of self-recording instruments consists of barographs, anemographs, thermographs, rain-gauges, and evaporator. Some of these are worked by electrical batteries, others by mechanical means. Those recording the velocity and direction of the wind, the amount of rainfall and changes of temperature, are connected with their respective wind-cups, wind-vanes, rain-receivers, and thermometers, exposed upon an artificial glass roof, beneath which the recording apparatus is placed, each electrical instrument having its own battery. Artificial currents of air and water are used to obtain uninterrupted working.

UNITED STATES SIGNAL STATION.

This department consists of a model United States signal service station, similar to those established in different sections of the United States. Here are exhibited the meteorological instruments used on station; the manner of taking, recording, and transmitting to the central office at Washington the observations upon which the weather reports, storm warnings, etc., are based; the method of publishing and distributing the predictions forwarded from the office of the Chief Signal Officer of the army, as well as the various means adopted to furnish at the earliest practicable moment all weather information which would be of benefit to commerce and agriculture. Specimens of the publications, charts, and maps of the office of the Chief Signal Officer are also exhibited.

PRINTING DEPARTMENT.

Here are exhibited in detail the printing of "weather maps" and "farmers' bulletins."

FIELD WORK.

This portion of the exhibition comprises a complete United States field-telegraph train, with capacity to erect 50 miles or more of portable telegraph line; portable signal tower 75 feet high, with its wagon; semaphore, signal flags, torches, rockets, bombs, and mortars, colored lights, heliographs (for communicating by means of sun flashing), and international flags, and other apparatus used in communicating with troops in the field or with vessels.

Quartermaster, Medical, Engineer Sections.

MODEL DEPARTMENT.

The model department comprises models of the different instruments used in field signaling, models of station meteorological instruments and portable instrument shelter, and a new electrical instrument for transmitting by telegraph the isobarometric and isothermal lines of the Signal Service weather maps.

QUARTERMASTER SECTION.

Uniforms.—Revolutionary uniforms, and those of succeeding years; present uniforms of the army.

Camp and Garrison Equipage.—Tents, flags, cooking utensils and tools; field music—drums, bugles, etc.; bunks, blankets, and bedsacks.

Means of Transportation.—Wagon and harness; ambulance and harness; aparajo; pack saddle; historic wagon; portable and traveling forges.

Machines.—For cutting out clothing; for brass screwing shoes; for testing fabrics.

Farriers' and Saddlers' Tools.

Standard Horse Shoes.

Veterinary Chest.

Kiernan's System of Horse Shoeing.

MEDICAL SECTION.

This display represents the character of the work of the medical staff of the United States army in peace and war. Four classes of objects are exhibited by the objects themselves, by models, or by photographs.

1. Hospitals for Sick and Wounded Soldiers.

a Post hospital of 24 beds of full size.

b Four full-sized hospital tents, with furniture representing the tent ward which served as the unit of the "tent field hospital" used during the civil war of 1861–65.

c Models of the barrack "General Hospitals" used during the war of 1861–65, viz.: a model of the form of barrack ward for 60 beds, on the scale of half an inch to the foot; and four ground-plan models showing combinations of such wards in general hospitals.

2. Medical and Hospital Supplies.

Samples of articles on the medical supply table of the army; medicines; hospital stores; surgical instruments and dressings; hospital furniture, bedding, clothing, and appliances; books, blank forms for reports, and stationery; medical panniers and medicine wagons, and samples of the artificial arms, legs, trusses, and other apparatus issued by the medical department to disabled soldiers.

3. Transportation of Sick and Wounded.

Stretchers, litters, and ambulances, full size and models; models of hospital railroad cars, hospital steamboat, and hospital ocean steamship, illustrating mode of transporting sick and wounded during the late war.

4. Treatment of Diseases and Injuries of Soldiers.

Army medical museum, represented by medical, surgical, anatomical, and microscopical specimens, photographs of specimens, and catalogue of museum; catalogue of Surgeon-General's office; photographed title pages of rare books on military medicine and surgery, etc.; medical and surgical publications of Surgeon-General's office.

The Post Hospital, for twenty-four beds, constructed from plans approved by the War Department, contains the greater part of the display of the Medical Department, as follows:

Room 1, 45x25, a ward with twelve beds, furniture, bedding, clothing, etc.

Room 2 (the other ward, same size), models of hospitals, ambulances, hospltal cars, boats, and ships, specimens from museum, etc.

Room 3, the dispensary, samples of medical supplies.

Room 4, the office, samples of surgical instruments, medical and surgical books, blanks, etc.

Room 5, dining room, table ware, mess furniture.

Room 6, kitchen, cooking apparatus.

Room 7, office of officer in charge of the display.

Rooms on second floor, stretchers, litters, medicine chests, and panniers; artificial legs and arms, trusses for rupture, and other apparatus.

Tent ward, full-sized hospital tents, pitched in the rear of the post hospital.

Ambulances, medicine wagons, and carts, full-sized, parked near the tent ward.

ENGINEER SECTION.

Maps and Drawings.

Map of the United States, showing work done by corps of engineers, 1776–1876.

Drawing of Rock Island bridge.

Map of canal and locks, Des Moines rapids.

Map of Mississippi river, from Le Claire, Iowa, to Rock Island, Illinois.

Drawings of improvements of Mississippi river between mouths of the Illinois and Ohio.

Plans of improvements on Hudson river, near Albany.

Drawing of iron landing pier, Delaware breakwater harbor.

Drawing of foundation of Fort Delaware.

Drawing of dynamometer for determining force required to screw down iron piles of Lewes pier.

Drawing of Delaware breakwater, with details of breakwater and ice barrier.

Map of shore of Delaware harbor, including Cape Henlopen.

Chart of Schuylkill river, from mouth to Chestnut Street bridge, showing improvements made by United States in its navigation from 1870 to 1875.

Drawing of dredge-boat "Henry Burden."

Drawing of mortar mill and concrete mixer.

Map of flood plain of Minnesota and Mississippi rivers, showing connection with basin of Red river and Lake Winnepeg.

Drawings of snag boat.

Chart of Galveston entrance.

Detailed drawings and photographs, illustrating experimental works at Galveston entrance.

Chart of Indianola harbor.

Detail drawings of end dock.

Charts of Lake Survey.

Lighthouse drawings, Eleventh district.

Drawing of river and harbor works.

Plans of cribs and pile pier at Chicago.

Maps and hydrographs of Ohio, Monongahela, and Great Kanawha rivers.

Drawings of crib work for piers on Lake Ontario.

Special map of region west of Mississippi river.

Special triangulation map of region west of Mississippi river.

Detailed topographical sheets of above region.

Specimen copies of photolithographic atlas,

crayon topographical atlas, and geological atlas.

Models of Harbor Improvements.

Work at Hallet's Point, N. Y. (Hellgate.)

Northern extremity of Cape Cod.

Section of iron landing pier of Delaware breakwater harbor.

Iron ice barrier proposed for Horse Shoe of Delaware river.

Breakwater at Dunkirk, N. Y.

Crib and lighthouse on Spectacle reef, Lake Huron.

Angle crib and lighthouse at Harbor of Refuge, Lake Huron.

Model showing shore lines and breakwater at Harbor of Refuge, Lake Huron.

Crib and pier at Chicago, Illinois.

Crib work for piers on Lake Ontario.

"Mattress" or "apron" used in improvements of harbor at mouth of Cape Fear river, N. C.

Models of Machinery and Appliances.

Steam drilling scow.

Capstan-head and machinery for screwing down iron piles at Delaware breakwater landing pier.

Derrick for landing shafts.

Eccentric clamp or "nipper" for sustaining piles.

Snag boat, showing hull.

Dredge-boat "McAlester."

Large grapple.

Photographs.

Views of Hallet's Point, N. Y.; snag boat; Red river; cribs and piers at Chicago, Ill.; country west of Mississippi river (Wheeler expedition).

Materials, Specimens, and Samples.

Specimens of borings at site of landing pier of Delaware breakwater; of iron used in construction of landing pier; of timber piles taken from between tides at Reedy Island; ice barrier; of building stone, concrete, and woods, collected from various parts of the United States; of fossil trees; of large cypress stump, taken from mouth of Cape Fear river, N. C.

Miscellaneous.

United States bridge equipage, pontoon wagons, loaded; tool wagon; forge; model of bridge train, wagons, and loads; reserve and advance guard bridges; siege and mining tools; field photographic outfit; reconnoissance instruments; bridge model; models of torpedoes; models of apparatus for measuring subaqueous explosions, in glass tank; torpedoes, full size, models, 1874–'75; ground mine; cable stop; junction boxes; torpedo cables, multiple and single; operating box; electrical apparatus used with torpedoes; iron plate from torpedo target, showing effects of thirty pounds of dynamite exploded under water at thirty feet distance; models of King, De Russy, and Hunt self-depressing gun carriages; models of mortar carriage and muzzle-pivoting gun carriage; surveying, astronomical, and barometrical instruments for field work; publications of the engineer bureau.

ORDNANCE SECTION.

Sea Coast Guns.

20 in. Rodman gun, on carriage and chassis, with hydraulic buffer, on platform; implements.

12 in. Thompson b. l. rifle, experimental, under Laidley's gun lift.

9 in. Sutcliffe b. l. rifle, experimental, on carriage and chassis, with Sinclair's friction-brake, mounted on platform; implements.

10 in. Woodbridge gun, experimental; in slings, under Laidley sling cart.

8 in. m. l. converted rifle, experimental, on 10 in. casemate carriage and chassis, with pneumatic buffers, mounted on platform in model of casemate; implements.

Mann's 8 in. b. l. rifle, wrought iron, experimental, mounted on top carriage and chassis.

8 in. siege howitzer, mounted on wooden siege carriage.

Siege Guns.

4.5 in. siege rifle gun, mounted on Benton's experimental iron siege carriage, with limber; implements.

Field Guns.

Light 12 pdr. gun, 4.62 in. wooden carriage, with limber; implements.

Sutcliffe 3.9 in. b. l. rifle, experimental.

Hotchkiss 3.9 in. b. l. rifle, experimental.

Moffat 3.15 in. b. l. rifle, experimental.

Mann's 3 in. b. l. rifle, experimental.

3 in. wrought iron, m. l. rifle, mounted on Benton's experimental iron 12 pdr. field carriage, with limber and caisson; implements; model horse harnessed to limber, with mounted driver.

10 pdr. Parrot rifle, mounted on Watervliet arsenal experimental iron field carriage, with limber.

3 in. Whitworth field piece, on carriage.

2.5 in. Woodbridge gun, experimental; fired 1327 times.

Hotchkiss field cannon, experimental.

Rebel b. l. pieces, field and boat, experimental skids.

Lyman's multicharge rifle, cal. 6 in., experimental skids.

Bomford and Wade perforated gun, experimental; used to determine experimentally exterior lines of heavy cannon, by means of pressure at different points of bore.

Mountain howitzer, mounted on carriage.

Mountain howitzer battery, on stands.

Volley and Repeating Guns.

Gatling gun, short barrel, cal. 45, on cavalry carriage; model horse in harness.

Hotchkiss revolving cannon, on carriage, experimental.

Union repeating (coffee-mill) gun, on carriage, experimental.

Regua battery, on carriage, experimental.

Guthrie & Lee gun, on carriage, experimental.

Vandenburgh volley gun, on carriage, experimental.

Revolutionary Guns.

6 pdr. French guns, bronze, presented by Lafayette; forming enclosure around models of modern gun plant.

12 pdr. siege gun, bronze, mounted on wooden carriage, with limber.

8 in. howitzer, bronze, mercer.

24 pdr. howitzers, Byer's; cast in Philadelphia.

Anthony Wayne howitzers, intended to be used on horseback; cast in Germantown, Philadelphia, by D. King.

Mortars.

13 in. sea-coast mortars, on bed, with centres, pintles, chassis mounted, on platform; implements.

24 pdr. Coehorn mortars, on beds.

Carriages.

New cavalry forge cart.

Projectiles.

Shot, shells, grape, canister, etc., for various weapons and calibres; smooth-bored and rifled; fired and unfired; hand-grenades,

War and Navy Departments, Ordnance and Appliances.

bombs, rockets, torpedoes, etc. Experimental projectiles from West Point.

Small Arms.

Historical collection of muzzle-loaders, wall-pieces, muskets, musketoons, rifles, pistols, flintlocks, percussion, breech-loaders, fixed and movable chambers, revolvers, tip-up barrels, needle guns, cylindered, magazine, chassepot, repeating, coffee-mill, drop-lever, slap-over guns, American and foreign.

Bayonets, blades, knives, swords and scabbards, lances, pikes, halberds, cleaning appliances, etc.

Accoutrement.

Sets of infantry, cavalry, and artillery equipments; cartridge boxes, canteens, metal work on scabbards, etc.; powder horns and flasks, cartridges, and cases of various materials and calibres; primers, locks, fuses; cartridge-making machinery.

Models.

Minute man.

Rifle private, full dress, Hall breech-loading rifle, 1818.

Private, mounted rifles, Mexican War, 1845.

Infantry private, 1858–1866, regulation equipment.

Cavalry private, 1865, Spencer, Mann's equipment.

Infantry man, full dress, 1876.

Infantry man, marching outfit, 1876.

Cavalry man, present, full dress, 1876.

Light-artillery man, full dress, 1876.

Horse, carved in wood, for cavalry equipment.

Horse, carton pièrre, for artillery harness.

Horse, stuffed, for Gatling cart.

Rock Island Arsenal, Illinois, in photo-relief.

Hitchcock gun-plant, with gun in sections, with set test specimen Hitchcock gun material, showing tensile and torsional strength; sample forging-disk; Dank's iron bloom; Graff, Bennett, & Co., Hitchcock's gun materials; long turnings H.G. material; and thin turnings H.G. material.

Rodman gun-plant, with specimen, showing tensile compression and torsional strength of the American cast-iron used in Rodman gun.

Woodbridge gun, with set specimens, showing tensile strength of Woodbridge gun construction; reel-wire for Woodbridge gun; and half-ring, bronzed, Woodbridge gun.

Cast of bore in gutta-percha of 8 in. m. l. converted rifles, with centres for same on trestles.

Glass-case specimens, containing small models, relics, etc.

Tree, cut in two by musketry at the battle of the Wilderness, Va.

Boards of component parts of small arms, and progressive work on scabbards.

Rodman guns, mounted in barbette and in casemate.

Mortar, mounted on bed with centre pintle chassis.

Table with models, field and siege carriages.

Lead bullets, joined together by collision in mid-air at the battle of Petersburg, Va.

Machines.

Casemate gin; Baxter engines.

Cartridge Machinery.

Portable gas furnace for annealing cartridge shells; double-action press; drawing presses; case and cup anvil trimmers; header; primer; cup venting, and impression machines; bullet, ball-trimming, and greasing, tapering, and loading machines; cup anvil press; rotary fan; packing tables and work boxes.

Gun-making Machinery.

Drop hammer; forge; trimming jumper; barrel-boring lathe, for nut boring and quick boring; barrel-turning lathe; straightening stand; polishing stand; vises, with machine for bending swivels; trimming press; drill press; rifling, brush, and profiling machines; milling and screw machines; clamp milling machine; machine for bending swivels; grindstone; engine lathe; emery mill grinder; second drilling receiver; first turning stock; lock-bedding with post and spare pulley; air pump and reservoir; bench for assembling guns.

Instruments.

Laidley laboratory, showing principles of construction, and illustrating experiments in ballistics; models pressure; pendulum eprouvette; camera lucida for representation with model of Frankford target; Shultz chronoscope, with Russel's interrupter; vignotti machine; Le Boulangé chronograph; Benton thread, and electro-ballistic machines; target for electro-ballistic machines; recoil dynamometer; mercurial densimeter; scales for mercurial densimeter; stereometer; collection of inspecting instruments for cannon and projectiles for 3 in. rifle and 15 in. gun; iron tube for firing through with safety; firing stand.

Miscellaneous.

Boards showing rifle practice.

Publications from ordnance office and artillery school.

Medal, army target practice; stadia, silver (1 cavalry, 1 infantry); telemetres (1 battery, 1 infantry, and 1 field).

Corrugated iron powder barrels; copper powder barrel.

NAVY DEPARTMENT.

ORDNANCE BRANCH.

Rifled and Smooth Bore Guns.—15 in. guns on Ericssen's and Edes's steam carriages.

[These two guns are mounted on a circular platform and inclosed in a wooden turret, representing in size and form a monitor's iron turret.]

Pieces of heavy ordnance, muzzle and breech loading, of antiquated styles and manufacture.

Guns from 11 in. to 3 in. calibre, and 100 pdrs. to 12 pdrs., variously mounted.

Torpedoes.—Automatic, stationary, and movable; electric batteries, wires, fuses, etc.; illustrating progress made by the torpedo school.

Small Arms.—Muskets, rifle and smooth bore, breech- and muzzle-loading; pistols, swords, cutlasses, bowie knives, battle axes, tomahawks, boarding helmets, etc.

Ordnance publications.

Samples of gunpowder.

Inspecting instruments for heavy guns; implements for gauging and inspecting shot and shell.

Fuse presses; machines for making percussion caps; metallic cartridges; solid head metallic musket and pistol cartridge now used in the navy, showing the different stages of

manufacture; other musket cartridges and cartridge inventions in possession of the navy.

Rifle projectiles for heavy guns; inventions of Dahlgren, Holroyd, Dana, Parrot, Hotchkiss, James, Brooks, and other inventors.

Sub-calibre and elongated projectiles for smooth bore guns; solid shot, shell, incendiary shell, grape, canister, shrapnel, as used at present, and as previously used or proposed.

Projectiles which have been fired at iron targets; models of projectiles; model gun-carriages; war rockets, hand grenades; leather work of navy ordnance; sponges, rammers, and scrapers of different styles and inventions; fuses, cannon primers, and caps, cannon locks, night signals, impressions from guns, vent impressions; gun sights; breech, reinforce, and trunnion.

Figures of sailors, showing the dress and arms at different periods.

Miscellaneous articles and naval relics.

NAVIGATION BRANCH.

Navy bunting and navy flags, illustrating the present state of the bunting manufacture in the United States, as shown in the bunting made for the navy and known as "navy bunting," and also the mode of making flags by dyeing in pattern.

Bunting testing machine.

Navy sounding machines and auxiliary apparatus, showing the improvements in Sir William Thomson's sounding machine, and the various devices for detaching sinkers, and bringing up specimens of bottom, water, etc.

Navy signal apparatus, showing the colored lights (Coston's), with specimens.

Navy compasses and compass-testing instruments, showing specimens of the navy compass, azimuth circle, tell-tale, boat, and monitor compasses.

Portable compass-testing instrument, with specimens to illustrate development of the liquid compass.

Specimens of the old dry or air compass of American makers, illustrating the progress of improvement.

Adjustable binnacle.

NAVAL OBSERVATORY.

Publications.

Photographs of astronomical and other objects.

Chronometers.

Objects illustrative of American Arctic explorations.

Buildings and instruments used in the observations of the transit of Venus, December 8, 9, 1874.

HYDROGRAPHIC OFFICE.

Nautical charts, books, etc., published by the Hydrographic Office.

NAUTICAL ALMANAC OFFICE.

Publications of the office.

YARDS AND DOCKS BRANCH.

Plans of navy yards at Portsmouth, N. H.; Boston, Mass.; New York, N. Y.; Washington, D. C.; Norfolk, Va.; Pensacola, Fla., and Mare Island, Cal.

Plans of machinery at Boston navy yard; plans of dry docks at Boston, Mass., and Norfolk, Va.

Photographs of buildings, etc., at Portsmouth, N. H.; New York, N. Y.; Norfolk, Va.; League Island, Pa.; Boston, Mass., and Mare Island, Cal.

Models of dry docks at Boston, Mass.; New York, N. Y.; Norfolk, Va., and Mare Island, Cal.

Pyramid of blocks of wood taken from naval vessels.

STEAM ENGINEERING BRANCH.

Machinery of the "Nipsic."

The machinery of the various sizes of steam launches.

The engines of the "Epervier."

Part of the original machinery of the torpedo boat "Spuyten Duyvel," a steam launch, with the first torpedo machinery used in the United States Navy.

Detail drawings of compound engines.

Photographs of machine shops, foundries, etc., showing improved tools used in the manufacture and construction of steam machinery.

Two compound boilers.

Baird's distiller, illustrating the method of making fresh water on board ship at sea.

EQUIPMENT AND RECRUITING BRANCH.

Young's ship's galley, with utensils for cooking for 500 men.

Hemp, manila, and wire rope; cable, blocks, chain cables, etc.

CONSTRUCTION AND REPAIR BRANCH.

Models of the "Constitution;" "Mississippi;" "Jamestown;" "St. Mary's;" "Portsmouth;" "Constellation;" "Niagara;" "Merrimac;" "New Ironsides;" "Hartford;" "Monitor;" "Kearsage;" "Vandalia;" "Constitution;" "President;" "Ohio;" "Enterprise;" "Washington," and "Fulton."

Full-rigged model.

MEDICAL AND SURGICAL BRANCH.

Medicines and Hospital Stores used in the Navy.

Surgical instruments and appliances usually supplied in the service; additional case of surgical instruments occasionally supplied in lieu of the standard operation case.

Cots and stretchers for transportation of wounded in action.

Model of a sick bay; the part of the ship usually allotted for hospital accommodation.

Model of hospital ship.

Fan for ventilating the hold of a ship in hot climates.

Starting funnel arrangement for aerating distilled water.

Set of record and account books for a naval hospital.

Fracture bedstead, for elevating the patient and changing position.

Bed with woven wire mattress.

Photographs and plans of naval hospitals.

PAY, PROVISION, AND CLOTHING BRANCH.

Articles and materials of clothing issued in the navy.

Package, showing the manner of packing clothing for sea.

Navy rations in glass jars, and packages of the same as prepared for sea.

"Small stores," articles for mess use: pans,

spoons, knives, etc., tobacco, soap, needles, thread, and other small articles.

Packages of tobacco and soap as packed for sea use.

Paymasters' books and blanks for a ship with complement of 200 men; paymasters' stationery; stewards' stores, scales, and tools used in issuing provisions.

Iron safe; locks used on paymasters' storerooms, three in number.

Specimen of candles.

TREASURY DEPARTMENT.

(Owing to want of sufficient appropriation by Congress for defraying the expense of the participation in the Exhibition by the Treasury Department, no definite arrangements have yet been made for contributions from it.—March 31, 1870.)

INTERIOR DEPARTMENT.

PATENT OFFICE.

Publications.—Annual reports; official gazette; indexes to patents, general and yearly; volumes of patents, monthly and weekly; decisions of Commissioner of Patents; mechanical dictionary; official classification.

Drawings of Models.—Selected series (60,000), intended to serve in the illustration of the Patent Office work, from the classes given below.

Models.—Selected series (5000), intended to serve in the illustration of the Patent Office work, from the following classes: agriculture; harvesters; mills and presses; architecture; civil engineering; railways; navigation; metallurgy; metal working; wood working; steam; hydraulics; pneumatics; mechanical movements; hoisting; horse powers; journals and bearings; vehicles; fire arms; textile; printing and stationery; stone; clay; glass; leather; light; heat; electricity; household; chemistry; gas; ice, and fine arts.

Miscellaneous Collections of Interest.—The original Declaration of Independence; Gen. Washington's commission from the Continental Congress; personal effects of Gen. Washington, such as furniture, porcelain, clothing, cane, sword, traveling escritoire, surveying compass, camp equipage, including tent, mess-kit, money-chest, etc.

Weapons of historical interest, such as bayonets from General Braddock's line of march; muskets presented by the Emperor of Morocco to Mr. Jefferson; war saddle of Baron De Kalb; sabres of honor presented to United States officers by sovereigns and beys; model of invention by President Lincoln.

PENSION OFFICE.

Publications.—Annual reports; graphic illustrations; wall maps; wall charts; portfolios of diagrams, etc.; collections of historical interest; selections from the archives of the office relative to the Revolutionary war.

GENERAL LAND OFFICE.

Publications.—Annual reports; digests, and other documents.

Graphic Illustrations.—Maps, charts, and atlas of surveys; miscellaneous collections; instruments and processes employed in the land survey.

INDIAN OFFICE.

Publications.—Reports and other publications.

Illustrations.—Portraits, photographs, maps of reservations, etc.

Models.—Wigwams, communal houses, canoes, etc.

Miscellaneous Collection of Interest.—Costumes, male and female, adult and others; weapons of war and the chase; tents, wigwams, canoes, etc.; domestic utensils; specimens of food; toys, games, and festivals; arts and manufactures of the tribes; ethnological collections, etc.

EDUCATION OFFICE.

Publications by the Office.—Annual and special reports, and circulars of information.

Publications by other Offices or Persons.—Foreign reports on American education; foreign educational reports and documents; treatises on pedagogy; and educational journals.

Graphic Representations.—Wall maps and charts; portfolios of engravings, drawings, and photographs; busts; paintings, and other portraits.

Models of Educational Buildings.—The primitive log school-house; country school-house of to-day; city graded school-house; college buildings; details as to dormitories, ventilative apparatus, school-rooms, etc.; models of adobe and sod school-houses.

Specimens of School Furniture, Apparatus, and text-books.—Historic collection, showing progress in text-books; specimens and models of school desks, seats, black boards, school maps, charts, etc.; specimens of modern slates, globes, natural history cabinets, chemical and philosophical apparatus, chemical appliances, etc.

Miscellaneous Collections of Interest.—Selected volumes of state and city educational reports; catalogues of private schools, academies, seminaries, colleges, and professional schools, selected series; catalogues and reports of orphan, reformatory, and charitable schools for the young, etc.; catalogues and reports of institutions for the deaf mute, blind, etc.; catalogues and reports of libraries; catalogues and reports of museums of art, of science, and of natural history.

These miscellaneous collections, some bound and others in their original condition, will be exhibited as showing specimens of the materials for the study of education, which are published by the systems and corporations themselves.

Volumes of manuscript returns made to the Bureau of Education by educators and school officials of every grade, and used in the preparation of its annual and special reports.

CENSUS OFFICE.

Publications.—Decennial censuses; statistical atlas, 1870.

Graphic Illustrations.—Maps, charts, and diagrams.

Miscellaneous Articles of Interest.—Original schedules of the census of 1790; selected volumes of schedules of subsequent censuses.

GEOLOGICAL AND GEOGRAPHICAL SURVEY OF THE TERRITORIES.

1st Division.

Publications.—Reports, bulletins, etc.

Graphic Illustrations.—Topographical and geological atlases; wall maps and charts; panoramic photographs; stereoscopic views; photographic portfolios; photographic transparencies; paintings, landscapes, portraits, etc.

Models and Reliefs.—Topographical and geographical relief maps; relief sections; models of displacement; models of ancient ruined cliff habitations; models of same restored.

Collections of Interest.—Geological and mineralogical cabinets; pottery, costumes, weapons, implements, toys, etc.

2d Division.

Publications.—Reports; bulletins; monographs, etc.

Graphic Illustrations.—Topographical and geological atlases; wall maps and charts; panoramic and stereoscopic views; portfolios, albums, and transparent photographs.

Models and Reliefs.—Topographical and geological relief maps; geological structural sections; models of displacement.

Miscellaneous Collections.—Geological and mineralogical specimens; arms, clothing, etc.

POST-OFFICE DEPARTMENT.

The exhibition of this Department is classed under the following general heads:

A MODEL WORKING POST-OFFICE.

This is a branch office or station of the Philadelphia office, and shows the practical workings of the following divisions of this Department, viz.: Box and general delivery system; system of carrier delivery and collections; registered letter system; money-order system; foreign mail system, etc.

RAILWAY MAIL SERVICE DIVISION.

Two railway post-offices or postal cars, equipped with mail-bag catchers, and all other first-class appointments of that service, under charge of railway post-office clerks, by whom the mailing and distribution of outgoing mails is performed. Several models of mail catchers are also exhibited under this head.

Model mail cars,—small size,—exhibiting the practical working of the mail-bag catcher upon a miniature truck inside the building.

STAMPS, STAMPED ENVELOPE, AND POSTAL CARD DIVISION.

Machine in operation manufacturing stamped envelopes; machine in operation manufacturing postal cards; specimens of all stamps, stamped envelopes, and postal cards; specimens of registered-letter envelopes and post-office official envelopes; specimens of all United States post-office stamps and stamped envelopes, formerly used and now out of date.

MAIL EQUIPMENT DIVISION.

Leather pouches for letter mails; canvas bags for printed and miscellaneous matter; also registered-letter mail bags; mail locks, now in use; mail locks, out of use.

TOPOGRAPHICAL DIVISION.

Railway and general postal-route maps, and money-order office maps.

DIVISION OF BOOKS AND BLANKS.

Specimens of all books, blanks, etc., used by the Department; letter scales; marking and rating stamps.

AGRICULTURAL DEPARTMENT.

The exhibit from the Agricultural Department embraces as follows:

BOTANICAL DIVISION.

A collection of all the timber trees of the United States, in sections, showing interior and exterior surfaces; specimens of flowers, leaves, and fruits; herbarium specimens of grasses and other specialties.

STATISTICAL DIVISION.

Large outline maps of the United States, showing forest areas, extent, and value of farming lands, and amount of production, by counties; arrangement of charts and diagrams detailing amount of special products, by sections; statistics of farm animals, and illustrated statistics of industrial education; statistical album of miscellaneous details, with charts, diagrams, etc.

ENTOMOLOGICAL DIVISION.

Collections of fruit and vegetable models; birds beneficial and injurious to farmers and orchardists; poultry types, illustrated by stuffed specimens; collection of grains and cereals; collection of textile fibres of the United States, with specimens of their manufacture; specimens of tobacco, from different tobacco-producing sections of the United States; mounted collection of beneficial and injurious insects.

MICROSCOPICAL DIVISION.

Series of water-color drawings illustrating typical genera of microscopic fungi; preparations illustrating the characteristics of poisonous and edible mushrooms common to the United States; illustrations displaying the varied character of the starch granules of plants; drawings and illustrations explaining method of distinguishing vegetable and animal fibres, their kind and quality; drawings displaying vegetable and animal cellulose and starches, and illustrating methods of detecting them in organizations.

CHEMICAL DIVISION.

Fertilizers.—Mineral—including phos-

phates, apatite, coprolites, and all minerals and materials yielding potash, etc.; vegetable—muck, peat, sea-weed, and other products of vegetable decomposition; animal—including guanos, bones, refuse from abattoirs, fisheries, oil manufactures, cancerine, etc.; agricultural products and materials obtained by chemical processes from flour, meal, bran, hominy; methods of preserving, etc., with special products of manufacture, viz.: starch, dextrine, sago, sugars, gums, glucose; products obtained by fermentation: wine, beer, ale, etc.; products of acetous fermentations; tanning materials of the United States: barks, leaves; tanning solutions, with modes of manufacture; dyes of the United States; resins and products of distillation of resinous materials; oils, vegetable, fixed, and others; products of milk, classified according to methods of production.

HORTICULTURAL DIVISION.

Specimens of economic and utilizable plants, showing methods of growth, culture, etc., grapes, cotton, tobacco, flax, broom corn, jute, corn, sorghum, yucca fibres, etc.

SMITHSONIAN INSTITUTION, AND COMMISSION ON AMERICAN FOOD FISHES.

The Smithsonian Institution makes the following exhibits:

Publications of the Institution.

Smithsonian contributions to knowledge; miscellaneous collections; annual reports, and other publications.

Meteorological work of the Institution: Charts showing the mean temperature, rainfall, and barometric pressure of the United States.

International exchanges; statistics of number of correspondents; extent of distribution by exchange.

General condition; financial statement.

COLLECTION TO ILLUSTRATE THE ANIMAL RESOURCES OF THE UNITED STATES.

In charge of G. Browne Goode.

Animals Beneficial or Injurious to Man—Mammals; birds; reptiles; amphibians; fishes; elasmobranchiates; marsipobranchiates; leptocardians; insects; arachneans; crustaceans; worms; mollusks; radiates; protozoans and marine products not of animal nature.

Means of Pursuit and Capture.—Hand-implements; implements for seizure of objects; missiles; baited hooks; angling tackle; nets, and traps.

Apparatus for Wholesale Destruction.—Hunting animals; decoys and disguises; pursuit—its methods and appliances.

Means of Utilization.—Preparation and preservation of foods; manufacture of textile fabrics, felts and stuffings; preparation of the skin and its appendages; the hard materials; oils, glues, drugs, perfumes, chemical products, fertilizers and lime; preservation of the animal for scientific uses.

Animal Products and their Applications.—Food; clothing; materials employed in the arts and manufactures.

Protection and Culture of Useful Animals.—Investigation; protection, and propagation.

COLLECTION TO ILLUSTRATE THE FISHERY RESOURCES OF THE UNITED STATES.

This is covered to a considerable extent by the preceding group, in connection with which it is arranged. The special features will embrace the following:

Fishing vessels, boats, etc., life size and models.

The apparatus and dories used in the whale fisheries.

Nets, traps, and pounds.

Hooks, lines, baits, etc.

Casts, photographs, and drawings of fish and other aquatic animals.

Prepared or living specimens of aquatic animals.

Products of the waters.

Economical applications of the above products.

E.—COLLECTION TO ILLUSTRATE THE ETHNOLOGY OF THE UNITED STATES.

In charge of Dr. Charles Rau.

(*This exhibition is made conjointly with the Indian Bureau of the Interior Department.*)

Objects of Stone.

Flaked and chipped stone; raw material (pieces of flint, etc.); flakes and cores of flint, obsidian, etc.; rude or unfinished implements; arrow and spear heads; perforators and scrapers; cutting and sawing implements; dagger-shaped implements; leaf-shaped implements; digging implements, and wedge or celt-shaped implements.

Pecked, ground, and polished stone; wedges or celts; chisels; gouges; adzes; grooved axes; hammers; ceremonial weapons; cutting tools; scraper and spade-like implements; pendants and sinkers; discordal stones, etc.; pierced tablets and boat-shaped objects; grinding and polishing stones; stone vessels; mortars; pestles; tubes; pipes; ornaments, and sculptures.

Objects of Copper.

Implements and ornaments.

Objects of Bone.

Implements, weapons, and ornaments.

Objects of Shell.

Utensils, implements, and ornaments.

Objects of Clay.

Mound pottery and terra-cottas.

Objects of Wood.

Fragmentary objects and carvings of an early date.

Ethnological Series.

Man.—Skulls, mummies, etc.

Culture.—Aliments, food (mineral and vegetable), drinks, narcotics, and medicines.

Habitations.—Models of houses, tents, etc., and appurtenances.

Furniture.—Cradle boards, mats, etc.

Vessels and other utensils of household use.—Earthenware; carved horn and wooden ware; stone ware; wicker work; bladders and boxes.

Utensils for smoking, etc.—Pipes; tobacco pouches; snuff apparatus, etc.

Receptacles used as means of transportation.—Pouches, bags, raw-hide cases, burden-nets, etc.

Clothing.—Raw material; complete suits; head, body, hand, leg, and foot clothing; parts of dress.

Personal adornment.—Skin ornamentation; head, neck, breast, body, and limb ornaments; toilet articles.

Implements of general use of war and the chase, and of special crafts.—Implements for cutting, drilling, etc.; lances, bows and arrows, clubs, tomahawks, etc.; shields, body armor, etc.; implements for fire-making, arrow-making, pottery, for procuring and manufacturing food; agricultural implements; implements used in spinning, weaving, sewing, and embroidery.

Means of locomotion and transportation.—Snow shoes, ice creepers, etc.; balsas, dugouts, bark canoes, hide boats, etc.; saddles, bridles, halters, harness, etc.; sleighs, etc.

Games and pastimes.—Gambling implements; masks, etc., used in dancing; rackets, balls, etc.; toys.

Music.—Drums, rattles, whistles, flutes, etc.

Art.—Pictorial representations and carvings.

Superstition.—Charms, mythological figures, etc.

COLLECTION TO ILLUSTRATE THE MINERAL RESOURCES OF THE UNITED STATES.

In charge of W. P. Blake.

The principal objects of this collection of the useful ores and minerals of the country have been to illustrate: 1st. The nature and variety of the mineral resources of the United States; 2d. The geographical distribution and geological associations of the minerals; 3d. The extent to which they have been utilized; 4th. The mechanical, metallurgical, and chemical processes by which they are extracted or converted into useful products; 5th. The inherent and comparative qualities of the extractive products. A portion of the collection is arranged according to the nature of the objects, irrespective of locality, but the bulk of the Exhibition is grouped geographically by States. There is also a section devoted to models and drawings, and one to geological maps and graphic charts. This collection occupies the northeast portion of the Government Building, upon the right of the main aisle.

I. SYSTEMATIC SERIES, GROUPED IRRESPECTIVE OF LOCALITY, IN THE FOLLOWING ORDER:

a Crystalline minerals, chiefly for scientific and educational purposes.

b Fuels and petroleum.

c Ores, metals, and their immediate derivatives.

d Ornamental stones and gems.

e Building stones; marbles, etc.

f Artificial stones; lime; mortars; cement.

g Fictile materials and direct products, including refractory materials, etc.

h Pigments; colors; detergents.

i Grinding, abrading, and polishing substances.

k Fertilizing substances.

l Sulphur, salts, and minerals chiefly used in chemical manufactures.

II. ORES, MINERALS, AND METALLURGICAL PRODUCTS, GROUPED BY STATES.

Maine.—Iron ores, limestone and pig iron; granite for buildings and monuments.

New Hampshire.—Granitic and metamorphosed rocks; granite; geological map of the State.

Vermont.—Marble; slate of various colors; roofing slate, etc.; iron ores and limonite; chilling pig iron; spiegeleisen; kaolin and fire brick; sand for glass making; copper ores, copper, and metallurgical products; scythe stones.

Massachusetts.—Iron ore, siderite; magnetic iron ore, and steel produced from it; iron and steel wire; emery, massive and associate; corundum, corundophylite, diaspore, red oxide of titanium, and ilmenite; argentiferous lead ore, galenite; copper ore; syenite and porphyry; porphyry, a series of polished specimens; granite; sand for glass making; glass, cut and pressed; pearl ash and red lead; kaolin; potters' clay, brick clay, etc.; potters', paper, and alum clay; marble and limestone; geological map of the State.

Rhode Island.—Granite, for building and monumental purposes; magnetite; anthracite and graphitic coal, in large mass and in lumps.

Connecticut.—Granite and building stone; marble and limestone; serpentine marble, verd antique; barytes (sulphate of barytes); kaolin, brick clay, and products; iron ores, limonite, etc.; pig iron; iron ore, spathic and associates; cement steel; mining picks and hammers; copper and alloys, nickel silver, etc.; feldspar, silex, etc., for pottery puposes; geological map of the State.

New York.—Magnetic iron ores, building stones, etc.; fluxes, fuels, and iron; Bessemer steel; hematite, magnetite, etc.; malleable cast iron; puddled iron and muck bar; limestone and lime; hydraulic limestone, hydraulic cement, and cement drain-pipe; kaolin, crude and washed; "incombustible mineral wool," or nitrous fibre "slag felting;" lead and tin foil; fire clay and fire clay goods, refractory materials, etc.

New Jersey.—Magnetic iron ores; iron ore; massive and granular willemite; zinc ores and franklinite; zinc; spiegel iron, "franklinite iron"; calamine (silicate of zinc); potters' and brick clay and iron-stone china ware; refractory furnace materials, fire brick, etc.; fire-brick clay and fire brick, etc.

Pennsylvania.—Iron ore, flux, and fuel; coal and coke; kaolin; limestone; iron ores, limonite, specular iron, etc.; copper ores, copper and copper products; petroleum and petroleum products; glass, and materials for its manufacture; window glass and materials; pig iron and ores; nickel and cobalt ores and products; cast steel; sheet iron; chromite.

Maryland.—Iron ore, flux, and fuel.

Virginia.—Zinc ores, calamine; lead ores, galena, cerussite, etc.; gypsum; barytes; kaolin; iron ores, magnetite, hematite, limonite, and fossil ore; coal and coke; copper ores; salt brine, fossil salt, and prepared salt; gold-bearing quartz; manganese; granite.

West Virginia.—Bituminous coal; coke; iron ores, black band, brown hematite, and fossil ores.

North Carolina.—Gold and silver ores; copper ores; marble; corundum and the associate minerals; iron ores and iron; muscovite (mica); geological map of North Carolina.

South Carolina.—Phosphatic fossils, mineral fertilizers, etc.; minerals and ores.

Alabama.—Ores and coal; spiegeleisen and ores; geological map of Alabama.

Minerals, Geological Maps and Publications

Tennessee.—Iron ores, coal and mineral products; copper pyrites and vein stone; refined copper; geological map of Tennessee.

Georgia.—Auriferous gravel; gold-bearing quartz, etc.

Kentucky.—A series of specimens illustrating the mineral resources of the State.

Louisiana.—Rock salt; sulphur.

Ohio.—Open hearth steel; iron ores, flux and fuel; pig iron; potters' clay and pottery; crude and manufactured plaster; building stone.

Indiana.—Specimens of block coal, and iron ores; potters' clay; "Indianite."

Missouri.—Lead ores, galena, cerussite, etc.; pig lead; zinc ores; barytes, associated with lead ores; marble, limestone, and granite; iron ores, magnetite, specular iron, hematite; pig iron; copper ore; coal and coke; fossil plants, etc.; porphyry.

Michigan.—Iron ores, flux, and Bessemer pig iron; specular and magnetic; native copper, crystallized; mass and stamp work, with silver and associate minerals, and in amygdaloid and "ash bed;" building stone; native silver; copper and "copper conglomerate."

Colorado.—Gold and silver ores; gold, and ores containing tellurium; silver and copper ore.

Utah.—Silver ores.

Idaho.—Gold and silver ores.

Montana.—Silver ores; argentiferous galena.

Arizona.—Copper ores; gold quartz, and other minerals.

Nevada.—Silver and gold ores.

California.—Gold and silver ores; auriferous gravel, "cement" with gold; quicksilver ores, cinnabar and native quicksilver; copper ores; tin ores and tin.

III. MODELS AND DRAWINGS.

IV. GEOLOGICAL MAPS AND GRAPHIC CHARTS.

Geological Map of the United States and Territories.

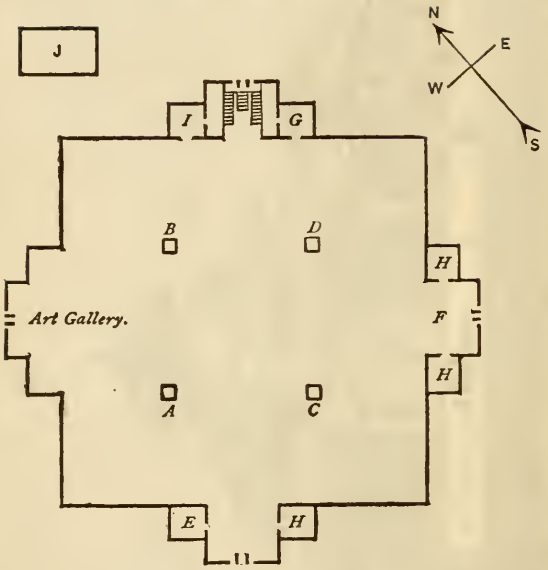
Geological and other Maps of the State of New Hampshire.

Geological Reports and Publications.

WOMEN'S PAVILION.

WOMEN'S PAVILION.

Scale, 80 ft. to 1 in.



BELMONT AVENUE.

Section A.—*Art, Industrial Art, Education.*
" B.—*Manufactures, etc.*
" C.—*Foreign Exhibits—Great Britain, Canada, Brazil, Norway, Sweden, Japan, France, Egypt, Tunis, Italy, Spain, Netherlands.*
" D.—*Needlework, inventions, patents, etc.*
E.—*Library.*
F.—*Benevolent Institutions.*
G.—*Editorial Office of "The New Century for Women."*
H —*Committee Rooms.*
I.—*Dressing Room.*
J.—*Kindergarten.*

Total Length, 208 ft. Width, 208 ft. Height of Nave, 41 ft. Height of Dome, 67 ft.

No. 153. WOMEN'S PAVILION.

Architect, H. J. SCHWARZMANN.—Size, 26,368 square feet.

THIS pavilion was erected by money raised through the exertions of the women of the United States, and is devoted exclusively to the results of women's labor. It is built of wood, and is situated on Belmont avenue, adjacent to the Horticultural grounds.

OFFICERS AND MEMBERS OF THE WOMEN'S CENTENNIAL EXECUTIVE COMMITTEE.

President, MRS. E. D. GILLESPIE, Philadelphia.

Vice-President, MRS. JOHN SANDERS, Philadelphia.

Secretary, MRS. RICHARD P. WHITE, Philadelphia.

Treasurer, MRS. FRANK M. ETTING, Philadelphia.

Members.

MRS. JOHN W. FORNEY, Philadelphia.
MRS. RICHARD P. WHITE, Philadelphia.
MRS. HENRY COHEN, Philadelphia.
MRS. AUBREY H. SMITH, Philadelphia.
MRS. MATTHEW SIMPSON, Philadelphia.
MRS. EMILY R. BUCKMAN, Philadelphia.
MRS. A. H. FRANCISCUS, Philadelphia.
MISS ELIZABETH GRATZ, Philadelphia.
MISS MCHENRY, Philadelphia.
MRS. CRAWFORD ARNOLD, Philada.
MRS. H. C. TOWNSEND, Philadelphia.
MRS. JOHN PENN BROCK, Philadelphia.
MRS. THEODORE CUYLER, Philadelphia.
MRS. ROBERT K. WRIGHT, Philadelphia.
MRS. L. C. HUGHES, Arizona.
MRS. FRED. MACCRELLISH, California.
MRS. M. E. P. BOULIGNY, Dist. of Col.
MRS. J. M. WASHBURN, Dakotah.
MRS. ELLEN CALL LONG, Florida.
MRS. F. R. WEST, Iowa.
MRS. W. S. RAND, Kentucky.
MRS. F. W. CROWELL, Kansas.
MRS. M. C. LUDELING, Louisiana.
MRS. BION BRADBURY, Maine.
MRS. JAMES T. FIELDS, Massachusetts.
MRS. K. S. MINOR, Mississippi.
MRS. S. B. BOWEN, Montana.
MRS. W. L. DAYTON, New Jersey.
MRS. EDWARD F. NOYES, Ohio.
MRS. F. W. GODDARD, Rhode Island.
MRS. M. J. YOUNG, Texas.
MRS. C. J. FAULKNER, West Virginia.
MRS. J. B. THORP, Wisconsin.
MRS. WORTHINGTON HOOKER, Conn.
MRS. W. O. ROCKWOOD, Indiana.
MRS. WM. GEO. REED, Maryland.
MISS E. S. STEVENS, New Hampshire.
MRS. GEN. G. W. CULLUM, New York.
MRS. J. GREGORY SMITH, Vermont.
MRS. J. M. HECK, North Carolina.
MRS. AARON V. BROWN, Tennessee.
MISS ELIZA R. SNOW, Utah.
MRS. GOV. BEVERIDGE, Illinois.

CHAIRMEN OF WARDS

IN THE

CITY OF PHILADELPHIA.

WARD.	
Second,	Mrs. C. M. Peterson.
Third,	Mrs. B. Morton.
Fifth,	Miss Forney.
Sixth,	Miss Bomeisler.
Seventh,	Mrs. R. L. Ashhurst.
Eighth,	Mrs. Tunis.
Ninth,	Miss Louisa E. Claghorn.
Tenth,	Miss Magee.
Eleventh,	Mrs. Alex. H. Newitt.
Twelfth,	Mrs. William Conn.
Thirteenth,	Mrs. T. W. Baily.
Fourteenth,	Mrs. I. Hyneman.
Fifteenth,	Mrs. A. W. Rand.
Sixteenth,	Mrs. Dr. Knorr.
Eighteenth,	Mrs. Dr. Claridge.
Nineteenth,	Mrs. T. W. Swain.
Twentieth,	Mrs. Abner Lincoln.
Twenty-first,	Mrs. W. B. Stephens.
Twenty-second,	Miss Zell.
Twenty-fourth,	Mrs. E. F. Hardie.
Twenty-fifth,	Mrs. Robert Kennedy.
Twenty-sixth,	Miss Carr.
Twenty-seventh,	Mrs. C. McIlvaine.
Twenty-eighth,	Mrs. T. J. Davis.
Twenty-ninth,	Mrs. W. B. Mann.
Thirty-first,	Mrs. E. H. Ryan.

Furniture, Laundry Appliances, Woven Goods.

Ceramics—Pottery, Porcelain, Glass, etc.

1 Hoopes, Ellen C., Soho Pottery, Pittsburg, Pa.—Ironstone china toilet set. Sec. B. 210

Furniture and Objects of General Use in Construction and in Dwellings.

2 Olson, Christine, Chicago, Ill.—Organ and table made of three thousand pieces of wood. Sec. D. 217

3 Stiles, Mrs. E. W., Philadelphia, Pa.—Combination desk and book paper file. Sec. D. 217

4 Chapman, Miss Laura M., Friendship, N. Y.—Lap table. Sec. D. 217

5 Spofford, Mrs. Jennie H., Philadelphia, Pa.—Mattress supporter, mosquito bar. Sec. D. 217

7 James, Mary I., Cambridge, Mass.—Holly wood chess table. Sec. A. 217

8 Page, Mrs. Elizabeth M., Philadelphia, Pa.—Dirt catcher. Sec. D. 217

9 Steele, Mrs. M. W., Woodbury, N. J.—Toy set, quill furniture. Sec. B. 217

10 Dickerson, Mrs. Y. G., Belfast, Me.—Embroidered camp chair, foot rest, and sofa pillow. Sec. D. 217

11 Mountain, Mrs. H. B., New York, N. Y.—Life-preserving mattress. Sec. D. 217

12 Cowen, Mrs. S. J., Hartford, Conn.—Book case. Sec. D. 217

13 Williams, Mrs. G. A., Baltimore, Md.—Leather table with checker board. Sec. D. 217

14 Phillips, Mrs. Richmund L., New York, N. Y.—Table painted in water colors. Sec. D. 217

15 Ladd, Miss Gertie, North Hero, Vt.—Student's book-frame. Sec. D. 217

16 Allen, Mary W., Cambridge, Mass.—Chess table, with pen and ink sketches. Sec. D. 217

17 Story, Miss Mary, Cambridge, Mass.—Chess table, with etchings. Sec. D. 247

18 Women's Executive Committee of Wisconsin.—Easel. Sec. D. 217

19 French, Julie Blanche, Boston, Mass.—Bedsteads containing drawers, interior safe, etc. Sec. D. 217

20 Davey, Mrs. Israel, Brandon, Vt.—Slate stand tops and panels. Sec. A. 217

21 Mitchell, Mrs. Carrie, Normal, Ill.—Combined bureau, table, cupboard, and sink. Sec. D. 217

22 Bulfinch, Miss Ellen S., Cambridge, Mass.—Book rack, with pen and ink etchings. Sec. A. 220

23 Smith, Mrs. O., Chicago, Ill.—Range. Sec. D. 222

24 Sherwood, Amanda S., Philadelphia, Pa.—Griddle greaser. Sec. D. 224

25 Fox, Jane Ann, Stamford, N. Y.—Dish drainer. Sec. D. 224

26 Whitman, Mrs. E. J., Oakland, Cal.—Kettle and pan scraper. An indispensable article for kitchen use. State rights for sale. Sec. D. 224

27 Boynton, Mrs. E. E., Evanston, Ill.—Tea kettle one hundred years old. Sec. D. 224

28 Kelsey, Phœbe M., Philadelphia, Pa.—Meat tenderer. Sec. D. 224

29 Steiger, Mrs. Hannah, Laurel, Md.—Lock barrel cover. Sec. D. 224

30 Hunkins, Mrs. D. Grace, Allegheny, Pa.—Rolling pin, containing ten articles used in cooking. Sec. D. 224

31 Sterling, Mrs. Charlotte, Gambia, O.—Dish washer. Sec. D. 224

32 Wells, Miss Glory Anna, Luzerne, Pa.—Dish washer. Sec. D. 224

33 Inesly, Susan V., New York, N. Y.—Reversible sad iron stand. Sec. D. 225

34 Short, Mrs, S., Cincinnati, O.—Blanket washer, mangle, ironer, paint cleaner, and stretcher for drying curtains, etc. Sec. D. 225

35 Ball, Mrs. S. P., Philadelphia, Pa.—Gas smoothing iron. Sec. D. 225

36 Tremper, Miss Marietta, New York, N. Y.—Window-washing machine. Sec. D. 225

37 Colvin, Margaret P., Battle Creek, Mich.—Triumph rotary washing machine, combining three principles: 1st, forcing steam through the goods—a powerful detergent; 2d, revolving in hot suds, with a constant change of position; 3d, the alternate elevation and falling of the goods is equivalent to light pounding. This machine is the successful result of years of experiment by a practical woman, to accomplish the perfect cleansing of all fabrics, from carpets to laces, without rubbing. With this machine, a child of twelve years can do more work, and do it better, than two women by ordinary methods. Sec. D.

38 Bancroft, Sarah H., Media, Pa.—Bathing chair. Sec. D. 226

39 Griswold, Mrs. Ellen D., Hagerstown, Md.—Sash fixture. Sec. D. 227

40 Reibert, Babetta, Montgomery, S.C.—Bell pulls. Sec. D. 227

41 Anderson, Miss Ellen D., Frederick, Md.—Shutter fastener. Sec. D. 227

Yarns and Woven Goods of Vegetable or Mineral Materials.

42 Collignon Bros., New York, N. Y.—Cane-seat work, made by women. Sec. D. 229

Woven and Felted Goods of Wool, etc.

43 Wilkinson, Mrs. James A., Providence, R. I.—Yarn from the hair of an Esquimaux dog. Sec. D. 235

44 Bates, Mrs. Edward, Newport, R. I.—Hand-spinning and carding of wool and flax. Sec. D. 235

45 Shapleigh, Mrs. E. B., Philadelphia, Pa.—Hand-made rug. Sec. D. 239

46 Ham, Miss Amanda S., Rochester, N. Y.—Rag rug, Sec. D. 239

47 Wingate, Mrs. J. F., Hampton, N. H.—Rag rugs. Sec. D. 239

Clothing, Jewelry, and Ornaments; Traveling Equipments.

48 Drury, Mrs. L., Springfield, O.—Dress cutting system. Sec. D. 250

For location of objects, see ground plan, p. 83.

Clothing, Embroideries, Laces, Fancy Articles.

49 Brooks, C. S., Philadelphia, Pa.—System for cutting clothing. Sec. D. 250

50 Union Benevolent Society, Philadelphia, Pa.—Infants' clothing. Sec. D. 250

51 Jones, Mrs. M. A., Philadelphia, Pa.—Children's clothing, dress-cutting system. Sec. D. 250

52 Tardy, Mrs. C., Paterson, N. J.—Infants' exercising corset. Sec. D. 250

53 Brosse, Madame S. C., San Francisco, Cal.—Models for self-measurement. Sec. D. 250

54 Keyser, Mrs. E., Philadelphia, Pa.—Misses' clothing and infants' outfits. Sec. D. 250

55 Harman, Mrs. E. F., New York, N. Y.—Dress and pattern designer. Sec. D. 250

56 Cornwell, Mrs. Elmira, Philadelphia, Pa.—Self-fitting chart, and patterns for cutting ladies' and children's clothing. Sec. D. 250

57 Overend, Rebecca C., Fairlee, Md.—Tippet and muff from pod of wild cotton. Sec. B. 250

58 Livingston, L. M., New York.—Garment cutting, tailors' system. Sec. D. 250

59 Flynt, Mrs. Olivia P., Boston, Mass.—Weather protector, linen duster, skirts, and under garments. Sec. D. 250

60 Stearns, Mrs. A. B., Woburn, Mass.—Diagrams for cutting dresses and shirts. Sec. D. 250

62 Dyer, Miss Fannie E., Providence, R. I.—Child's apron. Sec. D. 250

63 Merritt, Mrs. Jane E., Brooklyn, N. Y.—Cape made from the silk of the milk weed pod. Sec. B. 250

64 Gardiner, Miss Mary Jane, Warwick, R. I.—Trimming cutter. Sec. D. 250

65 Blauvelt, Mrs. Mary, New York, N. Y.—Marking and cutting gauge for tailors and dressmakers. Sec. D. 250

66 Kellogg, Mrs. D. G. M., Keokuk, Ia.—Hosiery. Sec. B. 250

67 Forsyth, Mrs. S. M., Manchester, Ia.—Hosiery. Sec. B. 250

68 Champney, Mary H., Billerica, Mass.—Stockings knit at ninety-eight years of age. Sec. D. 250

69 Lovering, Mrs. Abigail F., Oxford, Me.—Mittens knit at the age of one hundred years and four months. Sec. D. 250

70 Women's Centennial Committee of Lowell, Mass.—Lowell hosiery. Sec. D. 250

71 Robbins, L. E., Boston, Mass.—Diagram for cutting dresses. Sec. D. 250

72 Employment Society, Providence, R. I.—Sec. D.
a Infant's shirt, child's skirt, and afghan. 250
b Embroidered flannel skirt. 252

73 Bonney, Sarah E., Sterling, Mass.—Sec. B.
a Muff, boa, and cap. 250
b Feather fans. 254

74 Shaw, Mrs. James, jr., Providence, R. I.—Infant's socks. Sec. D. 251

75 Summer, Mrs. Sallie O., Providence, R. I.—Mittens. Sec. D. 251

75*a* Conant, Mrs. Orpha, Dwight, Ill.—Hat of common grass, gathered, bleached, and sewed in her eighty-fourth year. Sec. D. 251

76 Todd, Miss Lizzie, Columbus, O.—Embroidery. Sec. D. 252

77 Marsh, Mrs. Charles P., Woodstock, Vt.—Embroidery for camp chair. Sec. D. 252

78 Bach, Jennie & Flora, Philadelphia, Pa.—Embroidered table cover. Sec. D. 252

79 Lucas, Mrs. Mary, Charlotte, N. C.—Lace trimmed and embroidered handkerchief. Sec. D. 252

80 Paul, Mrs. C. F., Saratoga Springs, N. Y.—Honiton collar and lace. Sec. D. 252

81 Beach, Edith, West Hartford, Conn.—Child's rug. Sec. D. 252

82 Brush, Miss Jennie, New York, N. Y.—Embroidered lambroquins. Sec. D. 252

83 Todd, Miss Lizzie, Columbus, O.—Embroidered shawls and sacque. Sec. D. 252

84 Ladies of Immanuel Church, Bellows Falls, Vt. — Needlework. Sec. D. 252

85 St. John's Guild, New Haven, Conn.—Ecclesiastical embroidery. Sec. D. 252

86 Burton, Susie, Laurel, Md.—Tapestry picture: Joseph presenting his Father to Pharaoh. Sec. D. 252

87 Jones, Anna S., Worcester, Mass.—Tatted cushion cover. Sec. D. 252

88 Luce, Miss Caroline, Washington, D. C.—Honiton lace. Sec. D. 252

89 Weld, Mrs. William G., Boston, Mass.—Embroidered panels; imitation of antique lace. Sec. D. 252

90 Skuse, M. J. & F. A., Boston, Mass.—Irish point lace. Sec. D. 252

91 Shepherd, Mrs. Emeline, Northampton, Mass. — Embroidered handkerchief. Sec. D. 252

92 Jones, Miss Anna, Worcester, Mass.—Cushion cover. Sec. D. 252

93 Leonard, Miss Louise, New Bedford, Mass.—Lace ends for necktie. Sec. D. 252

94 Fay, Sarah R., Lancaster, Mass.—Embroidered blanket. Sec. D. 252

95 Hathaway, Mrs. Mary, New Bedford, Mass.—Embroidered scarf. Sec. D. 252

96 Nye, Mrs. Clement D., New Bedford, Mass.—Lace necktie. 252

97 Women's Executive Committee of Wisconsin.—Seal of Beloit College, embroidered on white satin. Sec. D. 252

98 Brown, Nettie, Keokuk, Ia.—English point guipure. Sec. D. 252

99 Leigerot, Mrs. Marie, Keokuk, Ia.—Thread lace. Sec. D. 252

100 Clothier, Miss Minnie J., Nevada, Ia.—Honiton point. Sec. D. 252

101 Scott, Mrs. T. R., Burlington, Ia.—Point lace bertha; handkerchief of Honiton point. Sec. D. 252

102 Scott, Mrs. John, Keokuk, Ia.—Guipure barb. Sec. D. 25

For location of objects, see ground plan, p. 83.

Embroideries, Laces, Fancy Articles.

103 Young Ladies' Society, Grinnell, Pa.—Baby blanket; Bible cushion. Sec. D. 252

104 Little, Miss, Hagerstown, Md.—Old Spanish lace. Sec. D. 252

105 Larkum, Mrs. Edward, Providence, R. I.—Crochet tidy. Sec. D. 252

106 Arnold, Mrs. John H., Pawtucket, R. I.—Pincushion cover and tidies in antique lace. Sec. D. 252

107 Bradley, Mrs. N. M., Providence, R. I.—Embroidered suspenders. Sec. D. 252

108 Kelley, Miss Lina, Providence, R. I.—Pincushion cover in antique lace. Sec. D. 252

109 Torrey, Miss, Baltimore, Md.—Guipure lace tidies. Sec. D. 252

110 Whitehead, Mrs. C. E., New York, N. Y.—White lace. Sec. D. 252

111 Reynolds, Mrs. W. H., Providence, R. I.—Embroidered flannel skirt. Sec. D. 252

112 Jessop, Mrs. Henry, Brooklyn, N. Y.—Honiton lace; English and Irish point lace. Sec. D. 252

113 Hassam, Miss Harriet A., Frederick, Md.—Embroidered ribbon. Sec. D. 252

114 Mordecai, Miss Rosa, Philadelphia, Pa.—Parasol cover, tatted to imitate Irish lace. Sec. D. 225

115 Taylor, Miss, Baltimore, Md.—Darning on cloth. Sec. D. 252

116 Ralston, Miss Florence, Providence, R. I.—Tatted tidy. Sec. D. 252

117 Hoard, Mrs. John W., Providence, R. I.—Netted tidy. Sec. D. 252

118 Congdon, Miss C. A., Providence, R. I.—Children's afghans. Sec. D. 252

119 Carroll, Mrs. Andrew J., Providence, R. I.—Netted shawl, afghan, and embroidered handkerchief. Sec. D. 252

120 Walker, Mrs. Victoria, Providence, R. I.—Embroidered carriage robe and child's skirt. Sec. D. 252

121 Whittemore, Miss Jennie, Charleston, S. C.—Worsted picture of General Washington. Sec. D. 252

122 Cheeny, Miss Daisy, East Greenwich, R. I.—Tatted tidy. Sec. D. 252

123 Wiggin, Mrs. Abby N., Providence, R. I.—Button holes in silk. Sec. D. 252

124 Brown, Miss Fanny G., Providence, R. I.—Embroidered sofa pillow. Sec. D. 252

125 Fuchs, Helene, St. Louis, Mo.—Embroidered lace dress. Sec. D. 252

126 States, Mrs. E. J., Boston, Mass.—Embroideries and infants' dresses. Sec. D. 252

127 Bravo, Miss Sofia, St. Augustine, Fla.—Pincushion cover and Spanish needle work. Sec. B. 252

128 King, Mrs. Henry, Georgetown, D.C.—Embroidered cashmere shawl. Sec. D. 252

129 Weiller, Julia, Philadelphia, Pa.—Embroidered picture. Sec. D. 252

130 Noot, L., New York, N. Y.—Handmade laces. Sec. C. 252

131 Whitesides, Mrs. E. G., Philadelphia, Pa.—Braiding and embroidery. Sec. D. 252

132 McCarthy, Miss Eva, Washington, D. C.—Piano cover. Sec. D. 252

133 American Button Hole, Overseaming, & Sewing Machine Co., Philadelphia, Pa.—Sewing machine work. Sec. D. 252

134 Anthony, Mrs. Sarah E., Smyrna, Del.—Embroidered picture. Sec. D. 252

135 Smyth, Mrs. M. H., Philadelphia, Pa.—Embroidery and lace mending. Sec. D. 252

136 Auerbach, Mrs. Annie T., Troy, Ala.—Embroidered white satin spread. Sec. D. 252

137 Stansbury, Mrs. J. C., Jersey City, N. J.—Thread lace. Sec. D. 252

138 Shepherd, Mrs. E. M., Northampton, Mass.—Embroidery and lace. Sec. D. 252

139 Heubel, Miss Melanie, Philadelphia, Pa.—Embroidered picture. Sec. D. 252

140 Huston, Mrs. A. B., Cincinnati, O.—Embroidered motto. Sec. A. 252

141 Purkis, Miss E. W., Providence, R. I.—Sec. B.
a Tatting in thread and silk. 252
b Cross in spatter work. 254

142 Palmer, Mrs. John S., Providence, R. I.—Sec. D.
a Tidy and barb in tatting. 252
b Tidy in spatter work; cross made from pith of Japan rose. 254

143 Welsh, Mrs. A. S., Ames, Ia.—Embroidered dressing gown, fire screen, and toilet cushion. Sec. D. 252

144 Plaisted, Miss Anna D., Dubuque, Ia.—Sachet and needlework. Sec. D. 252

145 Toole, Mrs. J. C., Dubuque, Ia.—Embroidered table cover. Sec. D. 252

146 Sheffield, Mrs. S. K., Dubuque, Ia.—Embroidered footstool. Sec. D. 252

147 Smythe, Miss Dora A., Dubuque, Ia.—Embroidered pin cushion. Sec. D. 252

148 Parrott, Mrs. Natt, Waterloo, Ia.—Pillow shams. Sec. D. 252

149 Guilbert, Mrs., Waterloo, Ia.—Hand sewing, Sec. D. 252

150 Gray, Mrs. John H.—Chenille work. Sec. D. 252

151 Lovejoy, Mrs. Perley R., Mt. Washington, Md.—Sec. D.
a Handkerchief, transferred work. 252
b Sachet and wild flowers embroidered on satin. 255

153 Davey, Mrs. Israel, Brandon, Vt.—Sec. A.
a Jewelry. 253
b Paper weights. 254

154 Walcott, Eloise B., Boston, Mass.—Indian basket work. Sec. D. 254

155 Nye, Miss Mary, New Bedford, Mass.—Mats for finger bowls. Sec. D. 253

156 Abbe, Mrs., New Bedford, Mass.—Toilet cushions and mats. Sec. D. 254

For location of objects, see ground plan, p. 83.

Fancy Articles, Stationery, Medicine.

157 Kesiah, Margaret, Saratoga, N. Y. —Indian work. Sec. B. 254

158 Scott, Miss S., Nevada, Ia.—Toilet box. Sec. D. 254

159 Dodge, Mrs. A. C., Dubuque, Ia.—Counterpane with India ink designs. Sec. D. 254

160 Sisters of the Visitation, Ottawa, Ia.—Chenille flowers and toilet cushion in fish scale work. Sec. D. 254

161 Burdie, Mrs. A. S., Des Moines, Ia.—Moss roses. Sec. D. 254

162 Iowa College for the Blind.—Fancy work by pupils. Sec. D. 254

163 Ward, Hetta L. H., Newark, N. J. —Violet pin and ear rings. Sec. B. 254

164 Jacquemin, Mrs. Eliza F., St. Louis, Mo.—Artificial flowers. Sec. B. 254

165 Kohn, Miss Annetta, New York, N. Y.—Autograph album. Sec. B. 254

166 Candee, Mrs. Charles T., New Haven, Conn.—Pansies in wool. Sec. D. 254

167 Vogel, A. C., Washington, D. C.—Crimping and curling pin. Sec. D. 254

168 Vanderpool, Mrs. Emily N., New York, N. Y.—Fan in Japanese style. Sec. D. 254

169 Wilhelm, Mrs. A. C., Philadelphia, Pa.—Screw button for shoes, gloves, etc. Sec. D. 254

170 Parkhill, Miss Harriet R., Jacksonville, Fla.—Ornaments and flowers made of fish scales. Sec. D. 254

171 West, Miss Julia M., Bristol, R. I. —Cross in spatter work. Sec. B. 254

172 Atwater, Miss Carrie A., New Haven, Conn.—Paper cut with scissors in imitation of lace. Sec. B. 254

173 Bailey, H. F., Walworth, Wis.—Ornamental paper cuttings. Sec. B. 254

174 Schmidt, Josephine, Baltimore, Md.—Satin tidy, painted in oil. Sec. A. 254

175 Dunning, Miss, Canaan, Conn.—Wooden tray, decorated. Sec. A. 254

176 Pierce, Mrs. Mary R., Philadelphia, Pa.—Thread and needle bank. Sec. C. 254

177 Requa, Emma M., New York, N. Y.—Miniature Independence Bell. Sec. B. 254

178 Bacon, Mrs. L. C., Boston, Mass.—Decorated lamp shades. Sec. B. 254

179 Jenkins, Mrs. R. E., Bordentown, N. J.—Dolls' shoes. Sec. B. 254

180 Martin, Mrs. J. H., Philadelphia, Pa.—Feather flowers. Sec. B. 254

181 Harley, Elizabeth G., Haddonfield, N. J.—Complete darner. Sec. D. 254

182 Yohe, Mrs. Daniel, Philadelphia, Pa.—Lamp mat. Sec. D. 254

183 Schmitt, Madam Katherine, Philadelphia, Pa.—Hair jewelry. Prize medals of 1854 and 1874. Sec. B. 254

184 Whitman, Mrs. E. J., Oakland, Cal. —Buttons that require no needle or thread. Sec. D. 254

185 Newberry, Miss Rose, New York, N. Y.—Silk scent bags, painted in water colors. Sec. D. 254

186 Brush, Miss J., New York, N. Y.—Satin lambroquins. Sec. D. 254

187 Tremper, Miss Marietta, New York City.—Shawl strap and bag combination. Sec. D. 255

188 Laumonier, Mrs. Celine, New York, N. Y.—Combined traveling bag and chair. Sec. D. 255

189 Merckell, Mrs. J. H., Chicago, Ill. —Faded mink, sable, and seal furs restored to original color. Sec. B. 256

Paper, Blank Books, and Stationery.

190 Stiles, Mrs. E. W., Philadelphia, Pa.—Revolving ink stand. Sec. D. 258

191 McNair, Linda H., Oakland, Cal.—Book marker, pencil holder, and paper cutter combined. Sec. D. 258

192 Jay, Miss Elizabeth C., New York, N. Y.—Postage stamp moistener. Sec. D. 258

193 Miller, Harriet G., Springfield, Mass.—Specimens of job printing. Sec. D. 261

Medicine, Surgery, Prothesis.

194 Marshall, Clara, Women's Medical College of Pennsylvania.—Materia medica cabinet and pharmaceutical preparations. Sec. C. 272

195 Blake, Mary J. S., Boston, Mass.—Surgical instrument. Sec. C. 276

196 Treadwell, Mrs. F. C., Philadelphia, Pa.—Dental work. Sec. B. 277

197 Ramborger, Annie D., Philadelphia, Pa.—Dental work. Sec. B. 277

Hardware, Edge Tools, Cutlery, and Metallic Products.

198 School of Design, Cincinnati, O.—Original metal work; hinges, lockplates, handle plates, etc. Sec. A. 284

199 Goldsborough, Mrs. G. R., Queenstown, Md.—Lock. Sec. A. 284

Carriages, Vehicles, and Accessories.

200 Spofford, Mrs. Jennie H., Philadelphia, Pa.—Spring saddle. Sec. D. 296

201 Ruth, Mrs. Sarah, Philadelphia, Pa.—Sunshade for horses. Sec. D. 296

202 Jones, Mrs. D. S., Washington, D. C.—Carriage afghan. Sec. D. 296

Educational Systems, Methods, and Libraries.

203 Fitts, Ellen E., Boston, Mass.—Geographical globes. Sec. D. 300

204 Covell, Miss Adelia C., New York, N. Y.—Perspective outline models for schools. Sec. D. 300

205 Bradley, Miss Anna J., Boston, Mass.—The thirteen primary forms of crystallization, made of mica. Sec. A. 301

206 Ladd, Miss Gertie, North Hero, Vt. —Music. 302

207 Woman's Art School, Cooper Union, New York, N. Y.—Normal School Work. Sec. A. 302

For location of objects, see ground plan, p. 83.

Education, Science, Sculpture.

208 Sill, Miss Anna P., Rockford, Ill.—History, catalogues, programmes, and magazine, of Rockford Seminary. Sec. E. 304

209 Women's Centennial Committee, Providence, R. I.—Volume of Herald of the Centennial. Sec. E. 304

210 Ladd, Miss Marion, North Hero, Vt.—Manuscript tale and poem. Sec. E. 306

211 Willard, Mrs. Harriet J., Chicago, Ill.—Books and pamphlets written by Chicago ladies. Sec. E. 306

212 Cowen, Mrs. S. J., Hartford, Conn.—Mrs. H. B. Stowe's works. Sec. E. 306

213 Larned, Ellen D., Thompson, Conn.—History of Wyndham county, Conn., from 1600 to 1760. Sec. E. 306

214 Caulkins, Frances M., New London, Conn.—Histories of Norwich and New London; Literary remains of Martha Day. Sec. E. 306

215 Barrett, Elizabeth G. B., New Haven, Conn.—Poems. Sec. E. 306

216 Hillhouse, Mary, New Haven, Conn.—German Songs in English Rhyme; Hymns from the Latin. Sec. E. 306

217 Porter, Rose, New Haven, Conn.—Miscellaneous literature. Sec. E. 306

218 Smith, Julia E., Glastenbury, Conn.—Translation of the Bible. Sec. C. 306

219 Harbert, Elizabeth B., Evanston, Ill.—Books. Sec. C. 306

220 Women's Centennial Committee of Massachusetts.—Books edited, compiled, and translated by Massachusetts women. Sec. C. 306

221 Hale, Sarah Josepha, Philadelphia, Pa.—Books. Sec. C. 306

222 Stone, Lucy, Boston, Mass.—"Women's Journal" and pamphlets. Sec. C. 306

223 Brotherson, Mrs. H. B. M., Peoria, Ill.—A poem. Sec. C. 306

224 Beach, Mrs. John S., New Haven, Conn.—The Spirit of Seventy-Six. Sec. C. 306

225 James, Mrs. T. P., Cambridge, Mass.—The Potts Memorial. Sec. C. 306

Institutions and Organizations.

226 Richards, Margaret C., Philadelphia, Pa.—Work of Indian women. Sec. C. 312

227 Janvier, Mary R., Northam, India.—Curiosities from India. Sec. B. 312

Scientific and Philosophical Instruments and Methods.

228 Whitner, Mrs. Mary A. E., Philadelphia, Pa.—Multiscope. Sec. D. 324

229 French, Elizabeth J., Philadelphia, Pa.—Electro-magnetic appliances. Sec. D. 325

230 Tuckerman, Mrs. Lucius, New York, N. Y.—Descriptive tablet of New York Infirmary and Medical College for Women. Sec. E. 346

231 Women's Centennial Committee of Massachusetts.—Photographs of New England Hospital, New Bedford Orphans' Home, New Bedford Mariners' Home, Lowell Old Ladies' Home. Sec. A. 346

Sculpture.

232 Guild, Mrs. Emma C., Waltham, Mass.—Sketch in plaster. Sec. A. 400

233 Nevin, Blanche, Philadelphia, Pa.—Plaster models: Eve; Cinderella. Sec. A. 400

234 Whitney, Anne, Belmont, Mass.—Bronze bust. Sec. A. 400

235 Massachusetts State Normal Art School.—Casts: historical ornaments, flowers in relief, medallion portraits, bas-relief of antique figure. 400

236 Freeborne, Sarah M., New York, N. Y.—Sec. A.
a Sculpture, Vision of St. Christopher. 400
b Bas-reliefs in silver. 401

237 Ward, Emily Winthrop, New York, N. Y.—Bas-relief in plaster, Gates of Life. Sec. A. 401

238 Perkins, Mrs. E. W., Boston, Mass.—Sec. A.
a Bas-relief on stone jug. 401
b Carved cabinet and footstool. 405

239 Wilsey, Mrs. A. W., Syracuse, N. Y.—Little old folks and chair, cut with a penknife. Sec. A. 405

240 Hewett, Mrs. Milwaukee, Wis.—Carved ebony book form. Sec. E. 405

241 Patterson, Mrs. S. C., Baltimore, Md.—Wall clock, cut with a penknife; salad fork and spoon. Sec. A. 405

242 Cutler, Misses N. M. & M. A., Providence, R. I.—Carved wall pocket, glove box, hanging cross, and frame. Sec. A. 405

243 Herrick, Lizzie A., Tilton, N. H.—Carved Easter eggs. Sec. A. 405

244 Women's State Centennial Committee, Wisconsin.—Memorial shrine of carved ebony. Sec. A. 405

245 Schools of Drawing and Design, Lowell, Mass.—Carved frame. 405

246 Brainard, Miss M. M., Worcester, Mass.—Wood carving. Sec. A. 405

Collective Exhibit of Carved Work, Painting, etc., from Ladies of the Cincinnati School of Design, Cincinnati, O. (*Sec. A.*)

247 McLaughlin, Miss M. Louise.—Bust of female head: The Pleasing Thought. 400

248 Banks, Miss Fannie M.—Carved Estey organ. 405

249 Pitman, Miss Agnes.—Carved piano. 405

250 Pitman, Mrs. & Miss.—Carved oak door, ebony inlaid and black walnut door. 405

251 Johnson, Misses H. & M.—Carved black walnut bedstead, ebony inlaid. 504

252 Huston, Mrs. A. B.—Carved dining-room mantel. 405

For location of objects, see ground plan, p. 83.

Wood Carvings.

253 Pitman, Mrs. & Miss.—Carved dining-room shelves. 405

254 Barrett, Mrs. T. M.—Carved cabinet. 405

255 Pitman, Mrs. Agnes.—Carved hanging cabinet, ebony inlaid. 405

256 Tidball, Miss Flora.—Child's carved bedstead. 405

257 Pitman, Miss Agnes.—Carved chest of drawers, and mantel bracket, ebony inlaid. 405

258 Pack, Miss Mary L.—Carved oak secretary cabinet. 405

259 White, Mrs. A.—Carved dressing bureau. 405

260 Caldwell, Miss Hattie D.—Carved altar cross. 405

261 Johnson, Misses Hattie & Mary.—Carved hanging cabinet, picture frames, wall pocket. 405

262 Cooper, Miss Alice.—Carved "*prie-dieu*" and stool. 405

263 Jordan, Miss Laura B.—Carved mahogany hanging cabinet. 405

264 Abbott, Mrs. E. F.—Carved dressing stand. 405

265 Rice, Miss Julia H.—Carved parlor table. 405

266 Laws, Miss Lizzie T.—Carved gothic flower stand. 405

267 Gurley, Miss Clara.—Carved writing desk. 405

268 Collord, Miss Helen.—Carved ebony prayer book covers. 405

270 Hirst, Miss Claude R.—Carved parlor easel and jewel casket. 405

271 Banks, Miss Fanny M.—Carved flower stand. 405

272 De Pilgrom, Miss V.—Carved black walnut bedstead. 405

273 Barrett, Mrs. S. M.—Carved chess table and picture frame. 405

274 Pitman, Miss Agnes.—Carved hanging secretary, walnut and ebony. 405

275 White, Mrs. A.—Carved picture frame. 405

276 Collard, Miss Isora.—Carved book racks and casket. 405

278 McDowell, Miss W. H.—Carved gothic stand. 405

279 Huston, Mrs. A. B.—Carved dog kennel frame. 405

280 Dominick, Mrs. G.—Carved cherry wall pocket and casket. 405

281 Tidball, Miss Flora J.—Carved flower stand. 405

282 Collard, Miss Helen.—Carved picture frame. 405

283 Vallandingham, Miss N.—Gentleman's carved dressing stand. 405

284 Collier, Miss Lizzie M.—Carved tea pot rest. 405

285 Hesser, Mrs. C. F.—Carved flower stand. 405

286 Huston, Mrs. A. B.—Carved bread plate. 405

287 Stern, Miss Jessie.—Carved wall pocket and card receiver. 405

288 Donnelly, Miss A.—Carved flower stand and picture frame. 405

289 Drake, Miss Ada P.—Carved Jardinière. 405

290 Swift, Miss Mary P.—Carved writing desk. 405

291 McCloskey, Miss Lizzie.—Carved wall pocket and photograph frame. 405

292 Collard, Miss H. A.—Carved trencher, picture frame, and flower stand. 405

293 Pitman, Miss A.—Carved fruit plate and card receiver, library stool, lamp stand, and picture frame. 405

294 Dunlap, Miss Sarah.—Carved wall pocket. 405

295 Hollingshead, Miss H.—Carved casket and picture frame. 405

296 Kidd, Mrs. N. R.—Carved flower stand. 405

297 Metcalf, Miss Flora.—Carved shield. 405

298 Newell, Miss Emma.—Carved fruit plate. 405

299 Caldwell, Miss Hattie D.—Carved picture frame. 405

300 Dodd, Mrs. William.—Carved casket. 405

301 Rice, Miss M.—Carved picture frame. 405

302 Menzies, Miss R. N.—Carved corner bracket. 405

303 Brashear, Miss Lillie.—Carved parlor easel. 405

304 Scudder, Miss Tillie.—Carved medicine cupboard. 405

305 Doherty, Miss Clara.—Carved fruit plate. 405

306 Tazzer, Miss Augusta.—Carved rocking chair. 405

307 Moore, Miss A. G.—Carved flower stand. 405

308 Kemper, Mrs. Theodore.—Carved tray. 405

309 Shaler, Miss Minnie.—Carved chess board and picture frame. 405

310 Merrill, Miss Susie.—Carved flower stand and carved and painted bracket. 405

311 Temple, Mrs. O. H.—Carved picture frame and wall bracket. 405

312 Brashear, Miss Lillie.—Carved flower stand. 405

313 Stribley, Miss May.—Carved picture frame and casket. 405

314 Tatum, Miss Lizzie.—Carved flower stand. 405

315 Huston, Mrs. A. B.—Painted slate panels. 410

316 Barrett, Mrs. S. M.—Silver bronze panels and oil painting. 410

317 Hirst, Miss Claude R.—Oil painting. 410

318 Drake, Miss Ada P.—Painted tiles. 410

319 Dominick, Mrs. G.—Illumination and medieval lettering. 411

For location of objects, see ground plan, p. 83.

Paintings.

320 Ladies' Centennial Committee, Worcester, Mass.—Wood carvings. Sec. A. 405

321 Force, Mrs. F. H., Cincinnati, O.—Carved black walnut corner cabinet. Sec. A. 405

322 Dodd, Mrs. Wm., Cincinnati, O. —Carved boudoir table and parlor easel. Sec. A. 405

323 Williams, Mrs. E., Cincinnati, O.—Child's carved mahogany bedstead. Sec. A. 405

324 McLaughlin, Miss M. Louise, Cincinnati, O.—Carved hanging cabinet, walnut and ebony, and jardinière. Sec. A. 405

Painting.

325 Way, Agnes C., Pittsburg, Pa.— Oil painting. Sec. A. 410

326 Sartain, Emily, Philadelphia, Pa.— Oil paintings. Sec. A. 410

327 Linderman, Mrs. Sophia, Philadelphia, Pa.—Oil paintings: A Turkish Lady; The Laplander's Evening Call; Princess Dornroschen. Sec. A. 410

328 Ferguson, Mrs. Mary L., Philadelphia, Pa.—Oil paintings: Natural Bridge, Virginia; Sunset over the Blue Ridge. Sec. A. 410

329 Natt, Phebe Davis, Philadelphia, Pa.—Oil painting: "There was an Old Woman who Lived in a Shoe." Sec. A. 410

330 Caller, Alice, Salem, Mass.— Painted panel. Sec. A. 410

331 Taneyhill, Flora, Alliance, O.— Oil painting. Sec. A. 410

332 Gilbert, Lucia M., Pittsford, Vt.— Oil painting on slate: Copy of Gustav Richter's Neapolitan Boy. Sec. A. 410

333 McLaughlin, Miss M. Louise, Cincinnati, O.—Painted slate panels. Sec. A. 410

334 Webster, Mrs. Elizabeth S., Hartford, Conn.— Partridges hanging, and game on table. Sec. A. 410

335 Bell, Lucy A., Exeter, N. H.—Portrait of Governor Bell. Sec. A. 410

336 Weeks, Caroline, Greenland, N. H. —Portrait of Governor Bartlett. 410

337 Stevens, M. Elizabeth, Jamaica, L. I.—Field daisies on red medallion. Sec. A. 410

338 Webster, Mrs. S. A., New York, N. Y.—Panels: Wild Roses and Daisies; Clematis and Woodbine. Sec. A. 410

339 Maxim, Nellie, Plainfield, N. J.— Panel, Daisies. Sec. A. 410

340 Henry, Mrs. Annie M., Boston, Mass.— Oil paintings: Wild Flowers; Horned Owl. Sec. A. 410

341 Field, Miss E. C., New York, N. Y. —Panel: Apple Blossoms. Sec. A. 410

342 Woodward, Laura, New York, N. Y.—Oil painting: Autumn in the Adirondack Mountains. Sec. A. 410

343 Greatorex, Eliza, New York, N. Y. —Oil paintings on panels: The Old Porch; The Old Bloomingdale Church; The Somerindyke House. Sec. A. 410

344 Schmidt, Josephine, Baltimore, Md.—Landscapes in oil. 410

345 Culver, Mrs. J. O., Madison, Wis. —Art cabinet, with painted panels and medallion. Sec. A. 410

346 Clarke, Kate W., Hyde Park, Ill.— Zononia, Mrs. Swisshelm's rustic home; Pine Woods in Autumn. Sec. A. 410

347 Warner, Miss Naidine, New York, N.Y.—Painting: Mackerel. Sec. A. 410

348 Remington, Elizabeth H., New York, N.Y.— Oil painting: The Two Kings, Corn and Cotton. Sec. A. 410

349 Cook, Miss H. M., Providence, R.I.—Painting: Snow Scene. Sec. A. 410

350 Burt, Miss Helen, New York, N.Y. —Oil paintings: Quiet Ruminations. Sec. A. 410

351 Rose, Adelaide, Port Jervis, N.Y. —Oil painting: The Wreath's Daybreak. Sec. A. 410

352 Paul, Miss Kate, Providence, R. I. —Beethoven and Quartette, copied in oil from an engraving. Sec. A. 410

353 Keep, Mrs. John R., Hartford, Conn. —Painting: Ear of Corn. Sec. A. 410

354 Rafter, Susan L. Johnson, Brook-lyn, N.Y.— Painting: Fruit; decorated table top: Wreath of Nasturtiums. Sec. A. 410

355 Fraley, Miss Mollie E., Marshall, Texas.—Oil painting: Flowers. Sec. A. 410

356 Fraley, Miss Mary E., Marshall, Texas.—Oil paintings: Jephtha; The Murder of the Innocents. Sec. A. 410

357 Conant, Miss C. W., New York, N.Y.—Oil painting: The Charity Scholar. Sec. A. 410

358 Twombly, Mrs. John H., Madison, Wis.—Oil painting: The White Mountains, from the Conway valley. Sec. A. 410

359 Talbot, Miss Eleanor W., Provi-dence, R.I.—Oil painting: Children at Play. Sec. A. 410

360 Martin, Mrs. S. L., Rupert, Vt. —Panels, paper weights, rulers, etc., painted in oil on slate, and enameled. Sec. A. 410

361 Holbrook, Harriet Jane, New York, N.Y.—Panels: Snowballs; Cactus; fruit-piece in oil, and portraits of Lady and Gentleman. Sec. A. 410

362 Hine, Franc E., Saratoga Springs, N.Y.—Flowers on slate panel. Sec. A. 410

363 Donaldson, Lucy, Baltimore, Md. —Panels: Wild Flowers; Roses. Sec. A. 410

364 Williams, Mary E., Salem, Mass. —Oil paintings: Roman Beggar; An Alchemist; Autumn Wild Flowers of New England. Sec. A. 410

365 Anthony, Miss Margaret M., Provi-dence, R.I.—Oil painting: Fruit. Sec. A. 410

366 Studley, Mrs. Thos. E., Provi-dence, R. I.—Child's portrait, in oil. Sec. A. 410

367 Stephens, Miss Maud, New York, N.Y.—Oil paintings: Autumn Leaves; A Picture within a Picture. Sec. A. 410

368 Porter, Miss Rebecca T., New Haven, Conn.—Oil painting: Absorbed. Sec. A. 410

For location of objects, see ground plan, p. 83.

Paintings.

369 Knowlton, Helen M., Boston, Mass. —Oil painting: Paper Mills at Newton Lower Falls. Sec. A. 410

371 Wadsworth, Miss A. E., Boston, Mass. —Oil painting: Woman Washing. Sec. A. 410

372 Adams, Miss Elizabeth, Boston, Mass.—Oil painting. Sec. A. 410

373 Osborn, Miss H. Frances, Peabody, Mass. — Oil painting on panel: Apple Blossoms. Sec. A. 410

374 Caller, Miss Alice, Salem, Mass. —Oil painting on panel: Violets. Sec. A. 410

375 Lane, Miss S. M., Boston, Mass. —Oil painting: Flowers. Sec. A. 410

376 Graves, Miss L., New Haven, Conn.—Panels in oil: Pond Lilies; Fuchsias. Sec. A. 410

377 Odenheimer, Mrs. B., New York, N.Y.—Oil painting: Guinevere. Sec. A. 410

378 Tolles, Sophie M., New York, N.Y. —Portraits of Linda Gilbert and P. T. Quinn. Sec. A. 410

378*a* Joes, Mrs. Arthur C., Brooklyn, N.Y.—Miniature portraits. Sec. A. 410

379 Boyd, Mrs. Kate, Canastota, N. Y. —Oil paintings: Portland Light, Maine; Old Orchard Beach; Don; Brook Trout. Sec. A. 410

380 Morris, Mary Hay, Baltimore, Md. —Oil paintings: Violin, Music, and Books; Fruit. Sec. A. 410

381 Nicholson, Martha A., Baltimore, Md. — Panels: Autumn Leaves; Bird. Sec. A. 410

382 Herrick, Caroline K., Orange, N.J. —Panel: Fringed Gentians. Sec. A. 410

383 Ricketts, Miss, Baltimore, Md.— Oil painting: White Grapes. Sec. A. 410

384 Pollock, Miss, Baltimore, Md.— Portrait of Samuel M. Janney. Sec. A. 410

385 Kay, Helena de, New York, N.Y. —Oil painting: Withered Golden Rod; panel: Sun Flowers. Sec. A. 410

386 Porter, Mrs. Susan C., Hartford, Conn.—Study of an Italian Girl. Sec. A. 410

387 Monks, Mary E., New York, N.Y. —Oil paintings: Calla Lilies; Water Lilies. Sec. A. 410

388 Farnham, Mrs. Sarah A., Hartford, Conn.—Oil painting: Camp in the Adirondacks. Sec. A. 410

389 Dixon, Maria R., New York, N.Y. —Oil painting: Catch me if you can. Sec. A. 410

390 Ackerman, Mary, Brooklyn, N.Y. —Oil painting: Hagar and Ishmael. Sec. A. 410

391 Palmer, Addie C., Concord, N.H.— Ebony panels: Roses, Azaleas. Sec. A. 410

392 Scott, Mrs. E. M., Chicago, Ill.— Oil painting: Roman Boy; panel: Roses. Sec. A. 410

393 Perry, Laura C., Poultney, Vt.— Slate panels. Sec. A. 410

394 Thomas, Mrs. Annie N., New York, N.Y.—Oil paintings: Morning Glories and Fuchsias. Sec. A. 410

395 Perkins, Fanny, New York, N.Y. —Portrait of a young Girl and Water Lilies. Sec. A. 410

396 Brounscombe, Jennie, New York, N.Y.—Painting: Elsie Venner. Sec. A. 410

EXHIBIT FROM SCHOOL OF DESIGN FOR WOMEN, PITTSBURG, PA.—SEC. A.

397 Murtland, Mary M.—Oil paintings: Hanging Basket, Flowers. 410

398 Reed, Annie.—Oil painting, Hanging basket. 410

399 Holmes, C.—Oil painting: Flowers. 410

399*a* Loomis, Eurilda.—Oil painting: Flowers. 410

400 Henderson, Annie W.—Water color paintings: Mullein, Roses. 410

401 Kerfoot, Annie.—Water color paintings: Bread and Wine: Florence. 411

402 Spring, Mary.—Water color landscapes. 411

403 Ferguson, Edith.—Water color painting: Peaches. 411

404 Hazlewood, M.—Water color painting: Wild Grapes. 411

405 Darrah, Sophia T., Boston, Mass. —Sec. A.
- *a* Oil painting: Stranded Sloop. 410
- *b* Water color painting: Woods in Autumn. 411

406 Wood, Miss Martha J., Pittsford, Vt.—Sec. A.
- *a* Oil paintings: Roman Peasant; Monk; German Interior. 410
- *b* Painting on enameled slate: Magdalen. 413

407 Sauerwein, Loulie C., Mt. Washington, Ind.—Sec. A.
- *a* Oil paintings, Indian sketches. 410
- *b* Water color sketches. 411

408 McLaughlin, Miss M. Louise, Cincinnati, O.—Sec. A.
- *a* Painted panels. 410
- *b* Painted plates, cups, teapot, stands, etc. 413

409 Voster, Sarah H., Portsmouth, N. H.—Sec. A.
- *a* Oil painting. 410
- *b* Water color painting. 411
- *c* Painted plates. 413

410 Nourse, Mrs., Georgetown, D. C.— Water color painting of flowers. Sec. A. 411

411 Dowe, Florence A., Ithaca, N. Y.— Flowers in water colors: Spring Wild Flowers and June Garden Pets. Sec. A. 411

412 Stewart, Alice, Chicago, Ill.—Orchids and ferns in water colors. Sec. A. 411

413 Burt, Martha, New York, N. Y.— Water color painting: Homely Flowers. Sec. A. 411

414 Northam, C. Gussie, Brooklyn, N. Y.—Water color figure: Amateur Theatricals. Sec. A. 411

415 Bliss, Mrs. Lydia S., Attleboro', Mass.—Panel: Cactus in Blossom. Sec. A. 411

415*a* Nourse, Mrs. J. E., Washington, D. C.—Miniature in ivory. Sec. A. 411

For location of objects, see ground plan, page 83.

Paintings, Engravings, Photographs.

416 Badger, Mrs. C. M., Madison, Conn.—Water color paintings: Night-Blooming Cereus and Apple Blossoms. Sec. A. 411

417 Grout, Miss S. A., Uxbridge, Mass.—Water color painting: Flowers. Sec. A. 411

418 Chaplin, Miss Christine, Boston, Mass.—Water color painting, illustrating a poem. Sec. A. 411

419 Bullard, Miss, Worcester, Mass.—Water color painting: Newport Grasses. Sec. A. 411

420 Washburn, Mrs. H. B., East River, Conn.—Water color painting: Apples. Sec. A. 411

421 Hooper, Mrs. G. W., New Haven, Conn.—Water color design. Sec. A. 411

422 Lockwood, Minnie S., New Haven, Conn.—Water color painting: Grasses and Cardinal Flowers. Sec. A. 411

423 Davenport, Elizabeth W., New Haven, Conn.—Water color painting: Cardinal Flowers and Clematis. Sec. A. 411

424 Ward, Hetta L. H., Newark, N. J.—Water color painting: From the Swamp. Sec. A. 411

425 Olmsted, Mrs. Anna M., Hartford, Conn.—Water color paintings: Dead Duck, Snow Bird, Flowers. Sec. A. 411

426 Olmsted, Miss Mamie, Hartford, Conn.—Water color painting: Dead Duck. Sec. A. 411

427 Barney, Mrs. Sarah E., Farmington, Conn.—Water color paintings: Hollyhocks and Fleur de Lis. Sec. A. 411

428 Davis, Georgie A., New York, N. Y.—Water color study: At the Prison Window. Sec. A. 411

429 Bradford, Anne H., West Winsted, Conn.—Water color painting: First Chickens of the Season. Sec. A. 411

430 Lyman, Miss Abby, New Haven, Conn.—Water color drawings: Blackberry Blossoms, Apple Blossoms, Daisies, Crab-apples, Rocks and Ferns. Sec. A. 411

431 Burton, Mrs. Mary H., Hartford, Conn.—Water color drawing: Autumn Field Flowers. Sec. A. 411

432 Dunning, Miss M., Canaan, Conn.—Tile painted on wood. Sec. A. 411

433 Franklin, Mrs. Anna L., Hartford, Conn.—Water color copy: Turin. Sec. A. 411

434 Donlevy, Alice, New York, N. Y.—Illumination: "Light! More Light!" Sec. A. 411

435 Porter, Miss Sarah, Farmington, Conn.—Tiles painted on wood. Sec. A. 411

436 Burton, Mrs. Mary H., Hartford, Conn.—Water color copies: Italian Peasants. Sec. A. 411

437 Warner, Mrs. George, Hartford, Conn.—Water color painting: Daisies. Sec. A. 411

438 Klippart, Josephine, Columbus, O.—Water color painting. Sec. A. 411

439 Ladies' Centennial Committee, Worcester, Mass.—Paintings. Sec. A. 411

440 Blakemore, Mrs. J. W., Philadelphia, Pa.—Water color painting. Sec. A. 411

441 Gordon, Margaret S. G., Philadelphia, Pa.—Water color paintings. Sec. A. 411

442 Robbins, Miss Ellen, Boston, Mass.—Decorated china. Sec. A. 413

443 Marquand, Miss Laura M., Boston, Mass.—Decorated china. Sec. A. 413

444 Shippen, Mrs. R. R., Boston, Mass.—Decorated porcelain table top. Sec. A. 413

445 James, Mary I., Cambridge, Mass.—Painting on porcelain. Sec. A. 413

446 Homans, Miss S. E., Boston, Mass.—Painted porcelain. Sec. A. 413

447 McLaughlin, Miss M. Louise, Cincinnati, O.—Decorated egg cups, original design. Sec. A. 413

448 Meredith, Mrs. L. P., Cincinnati, O.—Decorated plates, flowers. Sec. A. 413

449 Russell, Helen A., New York, N. Y.—Decorated china. Sec. A. 411

450 Cunningham, Alice H., Boston, Mass.—Decorated china. Sec. A. 411

Engraving and Lithography.

451 Mitchell, Mrs. Nellie D., Philadelphia, Pa.—Pastel painting. Sec. A. 420

452 Hopkins, Florence J., Washington, D. C.—Ferns in ink. Sec. A. 420

453 James, Mary I., Cambridge, Mass.—Pen and ink etchings. Sec. A. 420

454 West, Elizabeth J., Philadelphia, Pa.—Marking with indelible ink. Sec. D. 420

455 Hubbard, Mabel G., Cambridge, Mass.—Charcoal sketch. Sec. A. 420

456 Bell, Mrs., Philadelphia, Pa.—Colored crayons. Sec. A. 420

457 Landis, Mrs. D. C., Philadelphia, Pa.—Pastel painting. Sec. A. 420

458 Phillips, E. B., Philadelphia, Pa.—Marking in indelible ink. Sec. D. 420

459 Smyth, Mrs. M. H., Philadelphia, Pa.—Indelible ink marking. Sec. D. 420

460 Torrey, Martha A., Philadelphia, Pa.—Indelible ink marking. Sec. D. 420

461 Kay, Helena de, New York, N. Y.—Decorative drawings on wood. Sec. A. 420

462 Davis, Georgie A., New York, N. Y.—Pen and ink study: Edwin Booth as Iago; drawing on wood: Bridge of Sighs. Sec. A. 420

463 Burt, Martha, New York, N. Y.—Crayon portrait of Sothern. Sec. A. 420

464 Stone, Mary L., New York, N. Y.—Illustration of Hans Andersen's Snow Queen, on wood; block drawing of Italian Girl. Sec. A. 420

465 Curtis, Jessie, New York, N. Y.—Pen and ink drawings: Puck; Sunday Morning; Negro Reading; proofs of drawings on wood. Sec. A. 420

For location of objects, see ground plan, page 83.

Drawings, Photographs.

466 Harrison, Mrs. Margarita W., Jersey City, N. J.—Pen and ink sketch: Santa Claus; drawings on wood: Sunset; The Listeners. Sec. A. 420

467 Nourse, Mrs. Cora S., New York, N. Y.—Humming birds drawn on wood. Sec. A. 420

468 Davis, Mrs. J. A., Providence, R. I.—Marking in indelible ink. Sec. A. 420

469 Wilson, Miss Mary, Bellows Falls, Vt.—Penciling: Horses' Heads. Sec. A.

470 Barton, Isabelle, New York, N. Y.—Crayon picture: Little Wide-Awake. Sec. A. 420

471 Gay, Miss Alice, West Randolph, Vt.—Crayon picture: Pharaoh's Horses. Sec. A. 420

472 Wilson, Mrs. Robert, Easton, Md.—Crayon drawing: Olympia. Sec. A. 420

473 Atkinson, Lizzie H., Baltimore, Md.—Crayon portrait. Sec. A. 420

474 Phelps, S. Louise, East Orange, N. J.—Crayon portrait. Sec. A. 420

EXHIBIT FROM SCHOOL OF DESIGN FOR WOMEN, PITTSBURG, PA.—SEC. A.

475 Murtland, Mary M.—Crayon drawings: Discobulus, Venus of Milo, Minerva, Cupid. 420

476 Loomis, Eurilda.—Crayon drawing: Apollo; anatomical drawings; original drawings by pupils. 420

---

477 Leavitt, Miss H. J., Boston, Mass.—Crayon portrait of Mrs. Bancroft. Sec. A. 420

478 Humphreys, Miss L. B., New York, N. Y.—Drawing on wood: "My Son's Fair Wife, Elizabeth." Sec. A. 420

479 Willets, Margarita, New York, N. Y.—Proof of drawing on glass. Sec. A. 420

480 Coman, Mrs. C. B., New York, N. Y.—Charcoal sketch: In the North Woods. Sec. A. 420

481 Tuthill, Sarah S., Farmington, Conn.—Pencil drawing: Venus of Milo. Sec. A. 420

482 Lounds, Carrie A., New York, N. Y.—Crayon: My Brother's Portrait. Sec. A. 420

483 Wilson, Linnie R., Philadelphia, Pa.—Crayon head: Romulus. Sec. A. 420

484 Bryant, Miss, New York, N. Y.—Drawing on stone: Morning Glory. Sec. A. 420

485 Clinton, Lucille, New York, N. Y.—Crayon head of E. W. Stoughton. Sec. A. 420

486 Peck, Emma A., Hartford, Conn.—Crayon portraits: A Child; A Lady in Old Fashioned Costume. Sec. A. 420

487 Messick, Mrs., Providence, R. I.—Ornamental writing: Washington's Farewell Address; Declaration of Independence. Sec. B. 420

488 Wallace, Mrs. Mary W., New York, N. Y.—Drawings on wood: The Broken Doll, Flower Gathering. Sec. A. 420

489 Chamberlain, Mrs. Agnes H., New York, N. Y.—Drawing on stone: Pitcher Plant; botanical drawings. Sec. A. 420

490 Greatorex, Eliza, New York, N. Y.—Pen and ink sketches: Homes of Oberammergau; Old New York—from the Battery to Bloomingdale. Sec. A. 420

491 Commonwealth of Massachusetts, Department of Education.—Primary, grammar, high, and free evening industrial schools: drawings of pupils; Massachusetts State Normal Art School: flowers and fruit. 420

492 Schools of Drawing & Design, Lowell, Mass.—Crayon portraits of Mozart, Longfellow, and Lady Moon; Child's Head, Storks. 420

493 Bache, Miss Jennie, Brooklyn, N. Y.—Crayon picture. 420

493*a* Woman's Art School, Cooper Union, New York, N. Y.—Sec. A.
a Drawings from casts, photo-crayons. 420
b Work of engraving by pupils. 421
c Work of normal teachers' class. 421

494 Earls, Rebecca H. C., Philadelphia, Pa.—Crayon portrait of Brahmin Narayan Shesshadri; crayon study: Giraffe. Sec. A. 420

495 Burt, Miss Helen, New York, N. Y.—Drawing on wood: Little Lone Bird House. Sec. A. 420

496 Bondi, Bianca, New York, N. Y.—Sec. A.
a Drawing on stone: Two Shoes. 420
b Wood engravings. 422

497 Wormley, Mrs. Annie E., Columbus, O.—Microscopic illustrations on steel. Sec. A.

498 Sartain, Emily, Philadelphia, Pa.—Steel engravings: portrait of R. W. Emerson; Christ Walking on the Sea; Raising of Jairus's Daughter. Sec. A. 421

499 Liggett, Miss C. S., Saratoga Springs, N. Y.—Engraved cards, and general engravings. Sec. A. 421

500 Crane, Abby T., New York, N. Y.—Wood engravings. Sec. A. 422

501 Donlevy, Alice, New York, N. Y.—Wood engraving, The Lord's Prayer, proofs of decorative designs, book and newspaper illustrations. Sec. A. 422

502 Zoble, Mrs. Sophia G., New York, N. Y.—Wood engravings. Sec. A. 422

503 Hallock, Mary, New York, N. Y.—Wood engravings, book and newspaper illustrations. Sec. A. 422

504 Sherman, Miss F. M., New Haven, Conn.—Lithograph: Madonna and Child. Sec. A. 423

505 Clapp, Mrs. F. W., Framingham, Mass.—Photograph: Views of Framingham. Sec. A. 430

506 Hunt, Mrs. Chas. S., Weymouth, Mass.—Photographs of distinguished Massachusetts women. Sec. A. 430

507 Dayton, Miss M. G., Washington, D. C.—Enameled photographs. Sec. A. 430

508 Luther, Miss M. M., Warren, R. I.—Painted photograph: An Interior. Sec. A. 430

For location of objects, see ground plan, p. 83.

Designs, Decorations.

509 Tryatt, Miss Fanny, New York, N. Y.—Photographs from life. Sec. A. 430

510 Chapin, Miss, Providence, R. I.— Colored photograph of Commodore Whipple. Sec. A. 430

511 Hare, Miss E. A., Suffolk, Va.— Crystal photograph; Dom Pedro. Sec. A. 430

512 Schools of Drawing & Design, Lowell, Mass.—Photographs. Sec. A. 430

Industrial and Architectural Designs, etc.

513 Lowell School of Design of the Massachusetts Institute of Technology, Boston, Mass.—Designs by pupils for laces, silks, Brussels carpeting, oil cloths, printed robes, and calico. Sec. A. 440

514 Schools of Drawing & Design, Lowell, Mass.—Designs by pupils, for carpets, wall papers, handkerchiefs, etc. Sec. A. 440

515 Donlevy, Alice, New York, N. Y.— Design for book covers, drawn on wood, for printing in colors. Sec. D. 440

516 Boyd, Mrs. Kate, Canastota, N. Y. —Designs for wall paper. Sec. D. 440

517 Brownscombe, Jennie, New York, N. Y.—Designs for newspaper illustrations. Sec. D. 440

518 Stigale, Mrs. E. M., Philadelphia, Pa.—Model of cemetery enclosure. Sec. D. 441

Ceramic Decorations, Mosaics, etc.

519 Drown, Mrs. C. L., New York, N. Y.—Illuminated glass signs. Sec. D. 453

520 Vanderpool, Mrs. Emily N., New York, N. Y.—Monograms. Sec. B. 454

521 Collins, Miss Carrie L., Hartford, Conn.—Case for shaving papers, with pen and ink sketch on cover. Sec. B. 454

522 Hewett, Mrs., Milwaukee, Wis.— Illustrated poem. Sec. E. 454

523 Nourse, Mrs. Cora S., New York, N. Y.—Frame with designs in engraved proof, pencil, and water colors. Sec. B. 454

524 Davenport, Elizabeth W., New Haven, Conn.—Water color painting in silk. Sec. B. 454

525 Sterling, Mrs. E. J., Brooklyn, N. Y.—Decorated tiles. Sec. A. 454

526 Sweet, Mrs. John E., Ithaca, N. Y. —Wax flowers. Sec. B. 454

527 Ward, Susan Hayes, Newark, N. J.—Fireplace tiles, illustrating British ballads. Sec. A. 454

528 Hinds, Mrs. F. B., Providence, R. I.—Hair wreath. Sec. B. 454

529 Sahler, Miss Elizabeth, Kingston City, N. Y.—Spring and summer flowers, and autumn leaves, in wax. Sec. B. 454

530 Shellman, Miss Mary B., West-minster, Ind.—Moss and stone picture of church and graveyard. Sec. B. 454

531 Roberts, Jennie M., Chicago, Ill.— Hair wreath, flowers and fruit. Sec. B. 454

532 Greatorex, Eliza, New York, N. Y. —Illustrated books and albums. Sec. A. 454

533 Whitney, Annie H. & Alice G. Chandler, Lancaster, Mass.—Carved wooden fireplaces with painted tiles, pottery and china on the shelves, and paintings above. Sec. A. 454

534 Macdaniel, Miss Fanny L., New York, N. Y.—Illustrated hymn in pressed flowers, frame of pressed flowers. Sec. A. 454

535 Brothers, Mrs. H., 80 West Sev-enth street, Cincinnati, O.—Wax flowers and materials for making them. Manufacturer of excelsior sheet wax, wax flowers, and materials for making them. Artist of wax work, in all its branches. Sec. B. 454

536 Jeremias, Triny, Philadelphia, Pa. —Tissue-paper flowers. Sec. B. 454

537 Dickeson, Anna Mary, Philadel-phia, Pa.—Shell work. Sec. B. 454

538 Holcomb, Sallie N., Philadelphia, Pa.—Hair work. Sec. B. 454

539 Bickerton, Mrs. Anna B., Philadel-phia, Pa.—Preserved and wax flowers. Sec. B. 454

540 McPherren, Hattie E., Millersville, Pa.—Wax cross. Sec. B. 454

541 Kampmann, Mrs. Louise, Philadel-phia, Pa.—Hair work. Sec. B. 454

542 Goodwin, Alice H., Hartford, Conn. —Climbing ferns and autumn leaves. Sec. C. 454

543 Springer, Mrs. L. R., Boston, Mass. —Wax work, preserved flowers. Sec. B. 454

544 Heubel, Miss Melanie, Philadel-phia, Pa.—Wax work. Sec. C. 454

545 Whittington, Fannie L., New York, N. Y.—Basket of wax flowers. Sec. B. 454

546 Wilson, Mrs. Henry C., Philadel-phia, Pa.—Phantom bouquet. Sec. B. 454

547 Martin, Mrs. Edna, Cambridge, Mass.—Oil painting on porcelain and wood panel. Sec. A. 454

548 Judkins, Miss Eliza M., Cambridge, Mass.—Paintings on mica. Sec. A. 454

549 Cook, Miss H. M., Providence, R. I.—Book, with illustrations in birch bark. Sec. A. 454

550 Yoster, Sarah H., Portsmouth, N. H.—Frames of paper cuttings. Sec. A. 454

551 Bradford, Anne H., West Winsted, Conn.—Shells containing marine views. Sec. A. 454

552 Terry, Miss Jennie, Hartford, Conn.—Fans painted in water colors. Sec. A. 454

553 Gittings, Mrs. James, Baltimore, Md.—Illuminated poem. Sec. A. 454

554 Alexander, Miss E., Baltimore, Md.—Latin psalm illuminated. Sec. A. 454

555 Smith, Emily A., Baltimore, Md. Fire screen, painted in water colors. Sec. A. 454

For location of objects, see ground plan, p. 83.

Fancy Articles, Machines, Needlework.

556 Crichton, Antoinette K., Baltimore, Md.—Illuminated books: Daybreak, The Falling Rain, A Maiden's Toilette, The Maryland Coat of Arms. Sec. E. 454

557 Denroche, Sarah B., New York, N. Y.—Illuminated maps, for photographs; portfolio and lantern. Sec. D. 454

558 Schools of Drawing & Design, Lowell, Mass.—Decorated cups and saucers, and tiles. 454

559 Whittier, Miss H. A., Lowell, Mass.—Decorated box and tiles. 454

560 Hales, Florence, Ridgewood, N. J.—Autumn leaves, in wax. Sec. B. 454

561 Proell, Mrs. Gustave, Gastein, Austria.—Pressed flowers, with pictures of Alpine scenery. Sec. B. 454

562 Goddard, Miss Lucy, Boston, Mass.—Glass screen, with pressed ferns. Sec. B. 454

563 Clark, Miss A. F., Worcester, Mass.—Fire screen. Sec. B. 454

564 Upton, Mrs. E. W., Peabody, Mass.—Jewel case, butterfly, and needle book, painted in water colors. Sec. B. 454

565 Graves, Miss L., New Haven, Conn.—Painted candles. Sec. B. 454

566 Lockwood, Minnie S., New Haven, Conn.—Text with illuminated border. Sec. B. 454

567 Robbins, Miss Ellen, Boston, Mass.—Illuminated mirror. Sec. B. 454

568 Hooper, Alice S., Boston, Mass.—Portfolio, box, and tray, with pen and ink sketches. Sec. B. 454

569 Hollowell, Anna D., Medford, Mass.—Illuminated mirror. Sec. B. 454

570 Hendry & Bartholomew, Ansonia, Conn.—Bird cages made by women. Sec. B. 454

Machines used in Sewing, etc.

571 Compton, Geo., Worcester, Mass.—Cotton loom for dress goods. Sec. B. 521

572 Bromley, John, & Sons, Philadelphia, Pa.—The manufacture of ingrain carpets. Sec. D. 530

573 Townsend, Mrs. G. L., Philadelphia, Pa.—Vertical handle attachment to sewing machines. Sec. D. 531

574 White, Mrs. L. S., Philadelphia, Pa.—The manufacture of confectionery. Sec. B. 582

Aerial, Pneumatic, and Water Transportation.

575 Edson, Temperance P., Dedham, Mass.—Self-inflating life preserver. Sec. 594

Land Animals.

576 Bonney, Sarah E., Sterling, Mass.—Stuffed birds. Sec. B. 635

577 Janvier, Mrs. Mary R., Sabathu, India.—Lammergeir, or bearded vulture. Sec. B. 635

Hothouses, Conservatories, Graperies.

578 Lovejoy, Mrs. Carrie P., Columbus, O.—Preserved fern leaves. Sec. B. 709

579 Ware, Mrs. M. L., Philadelphia, Pa.—Preserved flowers. Sec. B 709

580 Davey, Mrs. Israel, Brandon, Vt.—Trailing arbutus, poppies, leaves, etc. Sec. A. 709

581 Watson, Jane, Massillon, O.—North American mosses. Sec. C. 709

582 Shaw, Miss Emma, Elmwood, R. I.—Pressed ferns. Sec. B. 709

583 Luther, Mrs. B. J., Providence, R. I.—Mosses from Narragansett Bay. Sec. B. 709

584 Parkhill, Miss Harriet R., Jacksonville, Fla.—Florida sea-weeds. Sec. B. 709

585 Bray, Maria H., Gloucester, Mass.—Marine algæ. Sec. B. 709

586 Hathaway, Mrs. P. V., Stevenson, Ill.—Native flora of Illinois. Sec. B. 709

Garden Tools, Accessories of Gardening.

587 Pierce, Mrs. Mary R., Philadelphia, Pa.—Flower stands. Sec. C. 721

588 Williams, Mrs. Jeff., St. Josephs, Missouri.—Terra-cotta hanging basket. Sec. C. 721

589 Slocum, Mrs. Martha E., New York.—Plant protector. Sec. D. 721

GREAT BRITAIN.

590 Rooke, Mrs. Henry A., London.—Couvrette of macramé lace. 252

591 Rooke, Miss E. E., Hertfordshire.—Macramé lace. 252

592 Greene, Miss, London.—Needlework. 252

593 Palmer, Miss H. M., London.—Point-lace parasol cover. 252

594 Hudson, Mrs. M. A., Buckingham.—Point lace. 252

595 Harding, Miss Caroline, Norfolk.—Embroideries. 252

596 Paget, Miss Nina, London.—Needlework. 252

597 Parker, Miss M. E., Dundee.—Lace shawl; embroidered screen. 252

598 Royal School of Art Needlework, London.—Artistic needlework and embroideries in appliqué, crewels, and silk. 252

599 Preble, Miss Mary, London.—Oil paintings. 410

600 Wilkinson, Miss G., London.—Water color paintings. 411

601 Frere, Miss Catherine F., London.—Water color paintings, and silk fan, with water color designs. 411

Articles contributed by Her Majesty The Queen.

602 Two table napkins spun by Her Majesty. Etchings by H.M. the Queen. A table cloth embroidered and made by

For location of objects, see ground plan, p. 83.

H.R.H. Princess Louis of Hesse, and H.R.H. Princess Christian of Schleswig Holstein. A banner screen embroidered by H.R.H. the Princess Beatrice. Drawings of flowers by H.R.H. the Princess Louise.

JAMAICA.

603 Nash, Mrs. Francilla, Kingston.—Dagger plant ornaments. 254

CANADA.

604 Abbey, Loretto, Toronto.—Vestments. 250

604*a* Beverly, Mrs., Oshawa.—Knitted shawl. 250

605 Grant, Mrs. Joseph, Aberfoyle.—Mitts and gauntlets. 251

606 Webster, Mrs. R. A., Ottawa.—Point lace. 252

607 Scales, Mrs., Toronto.—Berlin wool work. 252

608 Gemmel, Miss A., Toronto.—Embroidered piano cover. 252

609 Zimmerman, Mrs. D., Toronto.—Bead work. 252

610 Hammond, Mrs., Hamilton.—Needlework. 252

611 Park, Miss, Waterdown.—Tatting and knitting. 252

612 Robertson, Mrs., Stratford.—Berlin wool work. 252

613 Convent of St. Joseph, Toronto.—Berlin wool work and sofa cushion. 252

614 Geddes, Mrs., Montreal.—Tapestry. 252

614*a* Roberts, Mrs. James S., Charleston, S. C.—Needlework: Scene from Shakspeare. 252

615 McDonald, Mrs. de B., Montreal.—Gobelin tapestry. 252

616 Carrier, Miss, Montreal.—Lace work. 252

617 Fairbanks, Miss Isabella, Halifax.—Lace. 252

618 Conner, Miss Edith, Halifax.—Lace. 252

719 Sutcliffe, Mrs., Halifax.—Needlework. 252

620 Pierce, Miss C., Halifax.—Needlework. 252

621 Rutterford, Miss I., Halifax.—Lace work. 252

621*a* Perley, Miss H. A., Fredericton, N. B.—Point lace. 252

622 Romans, Misses, Halifax.—Crotchet work. 252

623 Viell, Miss, Halifax.—Lace. 252

624 Farrell, Misses, Halifax.—Lace. 252

625 Renni, Mrs. C. E., Halifax.—Lace. 625

626 Pryor, Mrs. H., Halifax.—Fancy work. 252

627 Farrell, Mrs. K., Toronto.—Worsted work. 252

628 Crawford, Miss, Toronto.—Tatting flounce. 252

629 Nunn, Mrs., Belleville.—Point lace. 252

630 Cramer, Miss, Toronto.—Embroidery. 252

631 Brown, Miss, Brampton.—Needle work. 252

632 Strickland, Misses, Oshawa.—Embroidery. 252

633 Vean, Miss M., Oshawa.—Embroideries. 252

634 Hooper, Miss Ellen, Oshawa.—Lace work. 252

635 West, Mrs., Ottawa.—Berlin wool work. 252

636 Heslop, Mrs., Toronto.—Fancy wool work. 252

637 Barclay, Mrs., Toronto.—Berlin wool work. 252

638 Norman, Miss, Hamilton.—Lace work. 252

639 Abbey, Loretta, Toronto.—Silk embroidery. 262

639*a* Jardine, Miss E., Richibucto, N. B.—Point and net lace. 252

640 Elleson, Annie, Toronto.—Fancy work. 254

641 Epouse, Miss L., Halifax.—Fancy work. 254

642 Hartshorne, Mrs., Halifax.—Fancy work. 252

643 Gilpin, Mrs., Halifax.—Fancy work. 254

645 Neville, Mrs., Ottawa.—Leather work. 255

646 Constant, Mrs., Halifax.—Leather work. 255

647 Mitchell, Miss M. A., Toronto.—Leather work. 255

648 Convent of the Sacred Heart, Province of Quebec.—Plan of the institution. 300

649 Convent of Lachine, Province of Quebec.—Plan of the institution. 300

650 Convent of Joliet, Province of Quebec.—Plan of the institution. 300

651 Convent of Good Shepherd, Province of Quebec.—Plan of the institution. 300

652 Convent of Jesus Maria, Province of Quebec.—Plan of the institution. 300

653 Convent of Hochlaya, Province of Quebec.—Plan of the institution. 300

654 Congregation of Notre Dame, Province of Quebec.—Plan of the institution. 300

655 Convent of St. Hyacinthe, Province of Quebec.—Plan of the institution. 300

656 Asile de la Providence, Montreal.—Plans of buildings. 300

657 Glassford, Mrs., Morrisburg.—Oil paintings. 410

658 Smelan, Mrs., Toronto.—Oil paintings. 410

658*a* James, Mrs. J. A., Richibucto, N. B.—Paintings. 410

658*b* Mazen, Mrs. E. M., Frederickton, N. B.
a Oil painting. 410
b Water color painting. 411

659 Chamberlain, Mrs., Ottawa.—Water color paintings. 411

For location of objects, see ground plan, p. 83.

Paintings, Fancy Articles, Embroideries.

660 Whitney, Miss, Montreal.—Pictures. 411

661 Harrison, Mrs., Montreal.—Pictures. 411

662 Bourne, Miss Bessie, Halifax.—Paintings. 411

663 Kent, Miss, Toronto.—Painting. 411

664 Morrison, Mrs., Opera House.—Photographs of buildings. 430

664a Stephenson, Mrs. E. J., St. John, N. B.
a Inlaid table. 452
b Hair pictures. 454

665 Farquhassen, Miss, Whitby.—Painting in velvet. 454

666 French, Mrs. B., Prescott.—Canadian autumn leaves. 454

667 Tully, Mrs. K., Toronto.—Moss picture. 454

668 Baird, Mrs. A. G., Toronto.—Moss picture. 454

669 Comens, Loretta, Toronto.—Wax flowers. 454

669a Warren, Mrs. E. J., St John, N. B.—Bark pictures. 454

TASMANIA.

670 Meredith, Hon. Mrs., Orford.—Oil painting, Tasmanian fish. 410

671 Hull, Mrs. Hugh M., Hobart Town.—Avoca, in Tasmania, by Moonlight. 420

672 Meredith, Hon. Mrs., Orford.—Table top with flowers. 45

673 Graves, Mrs. John, Woodcock.—Table top with Tasmanian ferns. 454

674 Hope, Miss Mary, Hobart Town.—Table top with Tasmanian flowers. 454

675 Blyth, Miss, Hobart Town.—Table top with Tasmanian flowers. 454

676 Mitchell, Mrs., Swansea.—Gum from oyster bay pine tree. 603

677 Thompson, Mrs. John, Cormiston.—Native bread. 621

FRANCE.

678 Talhouet, Roy, Mrs., Paris.—Silk embroideries. 225

679 Menon, Mrs. Marie, Directress of the Levallois-Perret School for Drawing and Painting, Paris.—Pupils' work. 300

680 Chateau de Villiers, Young Ladies' Institute, Paris.—Pupils' work. 300

681 Rougier, Miss Jeanne, Paris.—Oil painting: The Animal Merchant. 410

BELGIUM.

682 Everaert, Julie, & Sisters, Brussels.—Laces. 252

NETHERLANDS.

683 Diest, E. van, Arnhem.—Silk bed cover, with mosaic work on border. 252

684 Loke, Mrs. C.—Footstool, cushion, and embroidered kerchief. 252

685 Suermoudt, Mrs., Amersfoort.—Embroidered cover and counterpane. 252

686 Oldenborgh, Mrs. M. J., Dordrecht,—Imitation tiger skin and wax roses. 254

687 Amersfoordt, Mrs. H. M., Badhoeve.—Oratorio—"God's Ubiquity." 302

DENMARK.

688 Tscherning, Miss, Copenhagen.—Oil painting of flowers. 410

689 Rousholdt, Miss, Copenhagen.—Flower painting on terra-cotta vases. 454

SWEDEN.

690 Rappe, Eugenie, Baroness, Skälsnäs, Tjureda.—Pasteboard frames. 220

691 Soderberg, Maria, Stockholm.—Mantle. 250

692 Andersdotter, Margreta, Lällarp, Torscuna.—Embroidery. 252

693 Bagge, Charlotte, Kramfors, Hemösaad.—Embroidery and frames. 252

694 Ehrenpohl, Charlotte, Enslöf, Halmslad.—Embroideries. 252

695 Fürst, Batty, Upsala.—Needlework. 252

696 Pählman, S., Ulexio.—Embroidery. 252

697 Segebader, Herminia, Trimethon.—Embroideries. 252

698 Jönsfon, Helena, Stockholm.—Fancy articles, ornamented with moss. 254

699 Klinghammar, Tersa, Landskrona.—Flowers and ornaments made from fish scales. 254

700 Ehrenpohl, Charlotte, Enslöf, Halmslad.—Inkstand of burned clay. 258

701 Bianchini, Emerentia, Stockholm.—Carvings in cork. 405

702 Andersson, Amanda, Stockholm.—Oil paintings. 410

703 Ehrenpohl, Charlotte, Enslöf, Halmslad.—Oil painting. 410

704 Ramsay, Ebba, Tobsborg.—Water color painting of flowers. 411

705 Ramsay, Ebba, Tobsborg.—Herbarium. 709

ITALY.

706 Carson, Mrs. Caroline A., Rome.—Easel. Sec. D. 217

707 Romani, G., Rome.—Embroideries. Sec. D. 252

708 Regina, B., Rome.—Embroideries. Sec. D. 252

709 Gerosa, Adele, Rome.—Embroidery. Sec. D. 252

710 Pozzi, Vittoria, Rome.—Pearl and coral jewelry. Sec. B. 253

711 Crotta, Giamina, Rome.—Music. Sec. D. 302

712 Beceari, Adelaide G., Rome.—"La Donne," a newspaper, edited and written by women. Sec. D. 306

713 Maraini, Madame Adelaide, Rome.—Sec. A.
a Marble busts: Sandalphon, Marble Faun, Cupid and Psyche, Innocence. 400
b Bas-reliefs: Angels before and after the resurrection. 401

For location of objects, see ground plan, p. 83.

Sculpture, Paintings, Embroideries.

714 Freeman, Miss Florence, Rome.—Sec. A.
a Marble bust. 400
b Bronze vase. 401

715 Hosmer, Miss Harriet, Rome.—Sec. A.
a The African Sibyl. 400
b Lord Brownlow's Gates. 401

716 Foley, Miss M. F., Rome.—Bas reliefs: Charles Sumner, Joshua. Sec. 401. 401

717 Fauchinetti, Adelaide, Rome.—Landscape in oil. Sec. A. 410

718 Walker, Miss W., Rome.—Oil paintings. Sec. A. 410

719 Penniman, Miss Ellen A., Rome.—Oil paintings. Sec. A. 410

720 Clark, Miss Sarah A., Rome.—Sec. A.
a Oil paintings. 410
b The Dante Album. 411

721 Borzina, Leopoldina, Rome.—Water color paintings. Sec. A. 411

722 Wratislau, Miss Matilda, Rome.—Water color painting: Peasant's Head. Sec. A. 411

723 Conolly, Mrs. Isabella, Rome.—Illuminations. Sec. A. 411

724 Carson, Mrs. Caroline, Rome.—Painted banner. Sec. A. 411

725 Work of Roman women, exhibited by Mrs. Augustus Hemenway, Boston, Mass.—Sec. B.
a Scafati rugs. 239
b Contadina apron. 250
c Roman pearls. 253
d Ornament palm branches. 254
e Oil painting: Temple of Esneh, Egypt. 410
f Water color painting: Peasant Spinning Silk. 411

TUNIS.

726 Raschid, Lilla.—Embroidered shoes. 252

727 Houssein Bey, Mrs.—Embroidered shashea cover and jacket, embroidered by a Moorish princess. 252

728 Jewish & Moorish costumes worn in Tunis. 256

BRAZIL.

729 Oliveira, Maria de, Province of Rio de Janeiro.—Crotchet shawl. 250

730 Immaculate Conception, School of the, Rio de Janeiro.—Embroidered stole for priest. 250

731 Pereira, F. C., Province of Ceará.—Embroidered and trimmed chemise. 250

732 Hegreville, Paulina, Province of Parana.—Knit woolen shawl. 250

733 Silva, Zulmira Cinitea de, Rio de Janeiro.—Robe de frivolité, for child. 250

734 Mangin, F. H., Province of Paraná.
a Child's dress. 250
b Crochet shawl. 252

735 Netto, Maria Pinto, Province of Rio de Janeiro.
a Robe de chambre, embroidered. 250
b Linen embroideries 252

736 Orphans' School of Sancta Thereza, Rio de Janeiro.
a Stole for priest. 250
b Embroidered cushions. 252

736*a* Matta, Carolina A. da, Rio de Janeiro.—Cushion in tapestry work. 252

738 Neves, Isabel S. das, Rio de Janeiro.—Cushion in tapestry work. 252

739 Municipal School of St. Sebasteao, Rio de Janeiro.—Tapestry work by pupils. 252

740 Municipal School of San José.—Tapestry work by pupils. 252

741 Leao, Maria de, Province of Paraná.—Interlacings, and collar of linen thread. 252

742 Costa, M. E. da, Province of Paraná.—Collar of linen thread. 252

743 Miró, Osminda, Province of Paraná.—Crochet lace for towels. 252

744 Almeida, Anardina B. d', Rio de Janeiro.—Crochet counterpane. 252

745 Assumpçaõ, M. M., Province of raná.—Crochet handkerchief. 352

746 Ribas, J. S. G., Province of Paraná.—Crochet handkerchief. 252

747 Huy, Luiza M., Province of Paraná.—Interlacings in crochet; embroidered handkerchief and towel; lace. 252

748 Municipal School of St. Sebasteao, Rio de Janeiro.—Embroideries. 252

749 A. C. C., S. Salvador da Bahia.—Embroidered cushion. 252

750 Dias, H. J., Bahia.—Embroidered cushion. 252

751 Society Amante da Instrucçao, Orphan girls of, Rio de Janeiro.—Embroideries on velvet and silk. 252

752 Misericordia School, Orphan Girls of, Rio de Janeiro.—Embroidered cushions. 252

753 Luz, F. F. da, Province of Paraná.—Embroidered slippers. 252

754 Leão, M. M. de, Rio de Janeiro.—Embroideries. 252

755 Chaves, M. G. M., Rio de Janeiro.—Embroidered cushions. 252

756 Boa Viagem, Baroness da, Rio de Janeiro.—Embroidered pillow shams, towels, etc. 252

757 Pirapitinga, Baroness de, Province of Rio de Janeiro.—Embroidered towels and underwear. 252

758 Gama, D. Eulalia de Salvanha da, Rio de Janeiro.—Towels and pillow shams in labyrinth lace. 252

759 Commission General for the National Exhibitions, Rio de Janeiro.—Handkerchiefs in labyrinth lace, and laces for borders, by women of the province of Rio Grande do Nórte; laces, handkerchiefs, pillow shams, seives, etc., by women of the Provinces of Parahyba, Alagôas, and Goyaz. 252

760 Rozario, G. M. da, Province of Paraná.—Lace made of linen thread. 252

761 Lopez, J. F., Province of Paraná.—Embroidered handkerchief. 252

762 Kelim, Clara, Province of Paraná.—Embroidered handkerchiefs. 252

763 Aranjo, G. M. d', Province of Paraná.—Embroidered handkerchief. 252

764 Leão, A. C. de, Rio de Janeiro.—Pillow shams in sieve lace. 252

For location of objects, see ground plan, p. 83.

Embroideries, Laces, Fancy Articles.

765 **Alagoàs, Province of.**—Towel for toilet table, in embrodiery and sieve lace. 252

763 **Jacobina, Theresa D., Rio de Janeiro.**—Tapestry work. 252

767 **Oliveira, Alzira H. d', Rio de Janeiro.**—Cushion in tapestry work. 252

768 **Nunes, Henriqueta M., Rio de Janeiro.**—Cushion in tapestry work. 252

769 **Ferreira, Maria, Province of Ceará.**—Crochet case. 254

770 **Director of the Colony of Paraná.**—Fringes of linen thread, made by an Indian girl of the colony. 254

771 **Alves, M. R., Province of Paraná.**—Toilet covers. 254

772 **Itamaraty, Viscountess de, Rio de Janeiro.**—Embroidered pin case. 254

773 **Silva, M. M., Province of Paraná.**—Embroidered watch case. 254

774 **Faria, Maria D. de, Rio de Janeiro.**—Cushion of silk remnants. 254

775 **Vianna, B. R., Province of Paraná.**—Embroidered watch case. 254

776 **Province of Ceará, Ladies of.**—Feather flowers. 254

777 **Province of Bahia, Ladies of.**—Feather flowers. 254

778 **Silveira de Souza, Sisters, Province of Sancta Catharina.**—Artificial flowers of fish scales, egg-skin, sea shells, etc. 254

779 **Sancta Catharina, Province of.**—Flowers of fish scales. 254

780 **Nattè, Mille, Rio de Janeiro.**—Feather flowers, fans, coiffures, ornaments, etc.; ornaments made of bugs. 254

781 **Province of Paraná, Ladies of.**—Bouquet of fish scale flowers, and stand of alum. 254

782 **Commission General for the National Exhibition.**—Feather flowers, made by the orphans of the school of the Immaculate Conception. 254

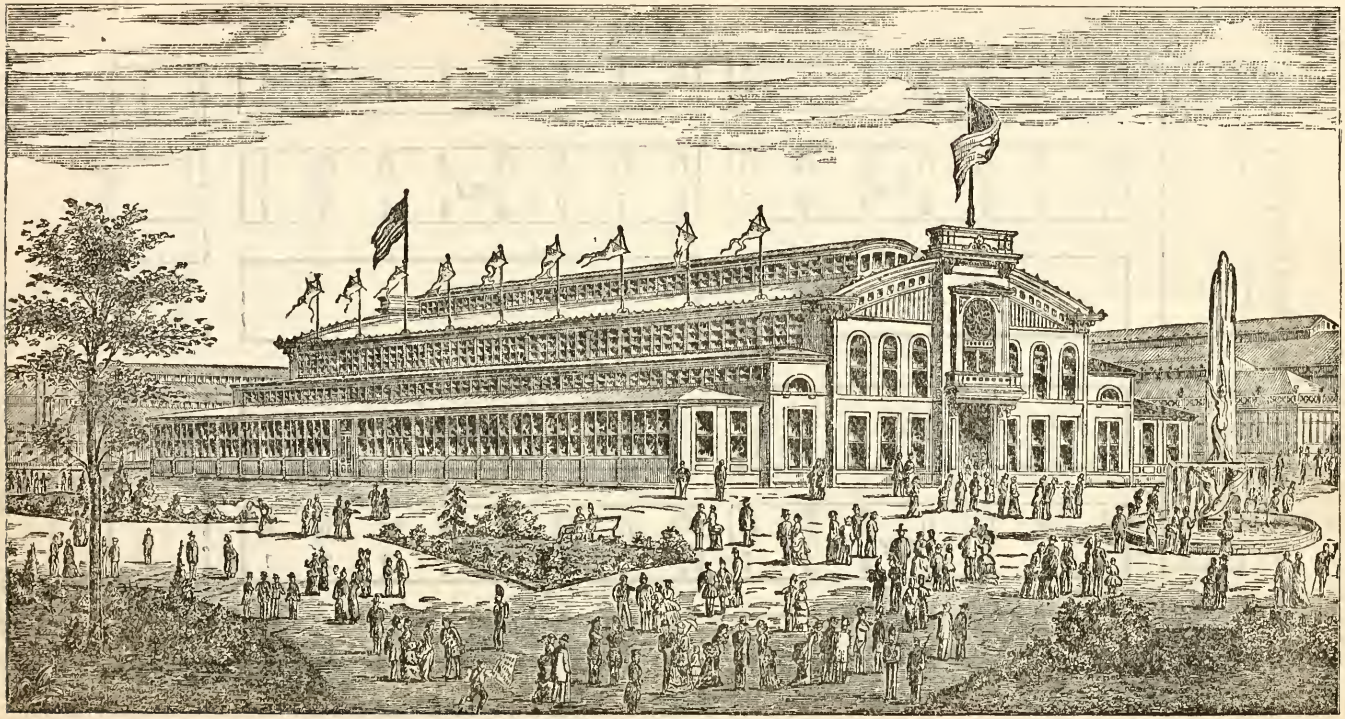
783 **Convent das Merces, San Paulo.**—Branch made of the pith of the fig-tree. 254

784 **Serzidillo, D. Anna M., Pará.**—Frame made of cork. 254

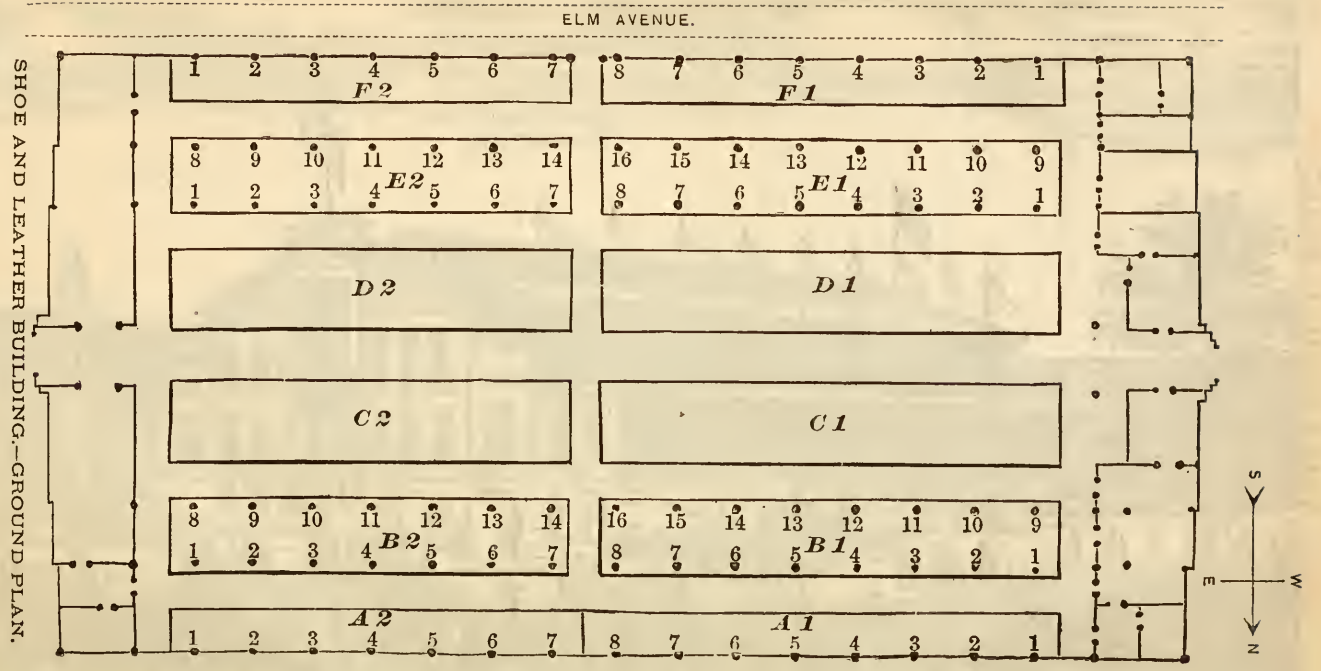
785 **Lopez, Emilia, Rio de Janeiro.**—Flower stand of leather. 255

786 **Leme, Rosalina Paes, Rio de Janeiro.**—Leather flowers 255

For location of objects, see ground plan, p. 83.



SHOE AND LEATHER BUILDING.


ELM AVENUE.
SHOE AND LEATHER BUILDING.—GROUND PLAN.
F2
F1
E2
E1
D2
D1
C2
C1
B2
B1
A2
A1
S
W
E
N

SHOE AND LEATHER BUILDING. No. 7.

Architect, A. B. BARRY.—Size, 314 feet by 160 feet.

The building is constructed of wood, two stories high, and is situated on Elm Avenue, south of Machinery Hall. Its name indicates its purpose.

KEY TO THE NOTATION.

THE location of objects in the Shoe and Leather Building is shown by a letter and two figures, indicating the nearest column of the building. The letter and first figure designate the section of the building, the second figure the column within that section. The system of numbering is shown on the annexed ground plan.

The class of the classification (See Part I., pages 27–45) to which each exhibit belongs is indicated by the small figures at the end of the line.

Oils, Leather Dressing.

Oils and Leather Dressing.

1 Dodd, A. W., & Co., Gloucester, Mass.—Oils for tanners' use. F 1–3. 201

1*a* Hyde Bros., & Swift, New York, N. Y.—Tanners' oils. A 2–1. 201

1*b* Brown, B. F. & Co., Boston, Mass. —Shoe blacking, leather dressing and bronzes. F 1–3. 202

1*c* Cole, W. D., Ashland, Mass.—Belt and hose stuffing. A 2–3. 202

2 Miller, Frank, Son, & Co., New York, N. Y.—F 1–4.
a Harness oils. 201
b Shoe blacking, leather dressings, etc. 202

2*a* Stump, F., & Co., Philadelphia, Pa.—Blacking, polishing and burnishing inks. A 2–1. 202

2*b* Boyer, W. P., & Co., Philadelphia, Pa.—Shoe blacking. F 1–2. 202

2*c* Hausler, John, Philadelphia, Pa.—Shoe blacking. F 1–2. 202

2*d* Fletcher & Dwyer, Lynn, Mass.—Burnishers for finishing edges and heels of boots and shoes. D 1–6. 202

2*e* Bartlett, H. A., & Co., Philadelphia, Pa.—Shoe blacking. F 1–1. 202

3 Levi & Berg, Philadelphia, Pa.—Shoe blacking and ladies' shoe dressing. F 1–3. 202

4 Annear, John, Philadelphia, Pa.—Shoe blacking and stove polish. F 1–2. 202

5 Mason, Jas. S., & Co., Philadelphia, Pa.—Shoe blacking. F 1–5. 202

7 Bixby, S. M., & Co., New York, N. Y.—Shoe blacking and leather dressing. F 1–4. 202

8 Restrorff & Bettmann, New York, N. Y.—Leather polish for boots, shoes, traveling bags, etc. B 2–2. 202

9 Sawyer, H., Boston, Mass.—Crystal blue. F 1–3. 202

10 Reed, Geo. H., & Sons, Boston, Mass.—Dressings, inks, varnishes, and stains for leather. F 1–3. 202

11 Hauthaway, C. L., & Sons, Boston, Mass.—Leather dressings, blackings, stains, and varnishes. These goods are favorably known throughout the United States, Canadas, and Europe, and were awarded medals at Boston and Vienna. Visitors at the Shoe and Leather Building will see upon the various exhibits of boots, shoes, harness, and horse collars, specimens of the high finish derived by the use of our dressings, as many of the best goods there are finished with our articles. They are considered indispensable in all manufactories using leather. Our exhibit consists of twenty-one different articles adapted to leather, all of our own invention and production. House established in 1854. E 1–11. 202

11*a* Connihan, E., & Co., Charlestown, Mass.—Water proof leather preservative. F 1–3. 202

For classes of exhibits, numbered at end of entries, see Classification, Part I., pp. 27–45.

Boots and Shoes.

Boots and Shoes.

12 Johnson, N. M., St. Louis, Mo.—Boots and shoes. C 2–11. 251

13 Wells, M. D., & Co., Chicago, Ill.—Boots and shoes. C 2–14. 251

14 Fargo, C. H., & Co., Chicago, Ill.—Women's, misses', and children's shoes; men's boots. C 2–11. 251

15 Falley, L., & Co., Lafayette, Ind.—Men's, boys', and women's calf and kip boots and shoes. C 1–15. 251

16 Knees, Chas., Frederick, Md.—Cordovan leather patterns for boots and shoes. D 1–8. 251

17 Semenetz, Rudolf, Cleveland, O.—English top boots. D 2–4. 251

18 Stribley & Co., Cincinnati, O.—Ladies', misses', and children's shoes. C 2–12. 251

18*a* Davis, Whitcomb, & Co., Boston, Mass.—Seamless felt shoes. D 1–4. 251

18*b* Graves, Ball, & Co., Albany, N. Y.—Shoe lasts. D 2–7. 251

18*c* Ransom, W. A., & Co., New York, N. Y.—Men's, women's, misses', and children's sewed, nailed, and pegged shoes and gaiters. D 2–5. 251

18*d* Keene Bros., Lynn, Mass.—Women's, misses', and children's boots and shoes. D 1–7–8. 251

18*e* Valpey & Anthony, Lynn, Mass.—Women's, misses', and children's boots and shoes. D 1–7–8. 251

18*f* Bartlett & Doak, Lynn, Mass.—Women's, misses', and children's boots and shoes. D 1–7–8. 251

18*g* Boynton & Bancroft, Lynn, Mass.—Women's, misses', and children's soles. D 1–7–8. 251

18*h* Mower, E. W. & C. F., Lynn, Mass.—Women's, misses', and children's boots and shoes. D 1–7–8. 251

18*i* Bubier, S. M., & Sons, Lynn, Mass.—Women's, misses', and children's boots and shoes. D 1–7–8. 251

18*j* Bachelier, C. H., & Co., Lynn, Mass.—Women's, misses', and children's boots and shoes. D 1–7–8. 251

19 Hocker, Geo., Cincinnati, O.—Ladies' and gentlemen's boots and shoes. C 2–13. 251

20 Kilsheimer, F., Cincinnati, O.—Men's boots, shoes, and gaiters. C 2–13. 251

21 Prichard, Smith, & Co., Cincinnati, O.—Boots and shoes. C 2–12. 251

22 Alter, Frank & Co., Cincinnati, O.—Boots and shoes. C 2–12. 251

23 Cincinnati Shoe Manufacturing Co., Cincinnati, O.—Ladies', misses', and children's boots and shoes. C 2–11. 251

24 Feary, Thos., & Sons, Albany, N. Y.—Ladies', misses', children's, and infants' shoes. C 2–11. 251

25 East New York Boot, Shoe, & Leather Manufacturing Co., Albany, N. Y.—Women's, misses', and children's shoes. C 2–13. 251

26 Newcomb & Walker, Elmira, N. Y.—Men's, boys', youths', women's, misses', and children's shoes. C 1–14. 251

27 Burt, Edwin C., New York, N. Y.—Ladies' shoes. C 2–14. 251

28 Burt & Mears, New York, N. Y.—Men's boots and shoes. C 2–14. 251

28*a* Dress Reform Co., Boston, Mass.—Designs for ladies' shoes. D 1–6. 251

29 Bay State Shoe & Leather Co., New York, N. Y.—Boots and shoes. C 2–14. 251

30 Thierry, Ernest J., New York, N. Y.—Gentlemen's gaiters, shoes, and slippers. C 2–14. 251

31 Brooks, Edwin A., New York, N. Y.—Cork-sole boots and shoes. C 2–13. 251

32 Creed, Eugene, New York, N. Y.—Boot, shoe, and gaiter uppers. C 1–15. 251

33 Kenny & McPartland, New York, N. Y.—Ladies', misses', and children's shoes. D 1–5. 251

34 Leh, H., & Co., Allentown, Pa.—Boots and shoes. D 2–4. 251

35 Adler & Clement, Baltimore, Md.—Ladies', misses', and children's shoes; leather tips formed from the sole. D 1–4. 251

36 Dixon, W. T., & Bro., Baltimore, Md.—Ladies,' misses', and children's shoes. D 1–2. 251

37 Banister & Tichenor, Newark, N. J.—Men's and boys' boots, shoes, and slippers. Finest class hand and machine-sewed. Any of the goods on exhibition duplicated on orders. D 2–4. 251

38 Canfield, M. B. & I., Newark, N. J.—Gentlemen's boots and shoes. D 2–5. 251

39 Miller, McCullogh, & Ober, Newark, N. J.—Gents' boots and shoes. D 2–4. 251

40 Brown, Alex. P., & Co., Philadelphia, Pa.—Ladies', misses', children's, and infants' boots and shoes. C 1–15. 251

41 Evans, Thos. R., 28 South Fourth street, Philadelphia, Pa.—"Evans's American gaiter," and graduated expanding boots and shoes. Patented. D 2–5. 251

42 Jenkins Bros. & Co., South Abington, Mass.—Steel shanks for boots and shoes. C 1–15. 251

43 Erskine, M. A., & Co., Philadelphia, Pa.—Ladies' shoes. C 1–12. 251

44 Graf, L., & Bro., Newark, N. J.—Boots and shoes. C 1–13. 251

45 West Bros., Philadelphia, Pa.—Ladies', misses', children's, and infants, shoes. C 1–13. 251

45*a* Moore, Wm. B., Camden, N. J.—Metal tips for shoes, corsets, etc. D 1–4. 251

45*b* Barrows & Boyd, New York, N. Y.—Ladies' and children's fine shoes. D 2–5. 251

45*c* Shaw, Chas. A., Boston, Mass.—Improved shoe lasts. D 1–5. 251

45*d* Prouty, Isaac, & Co., Spencer, Mass.—Men's, boys', and youths' boots. D 1–3. 251

45*e* Kent, Edward E., & Co., Spencer, Mass.—Men's, boys', and youths' boots. D 2–7. 251

45*f* Cooper, R., Ithaca, N. Y.—Centennial shoe. D 1–5. 251

For location of objects, indicated by letter and figure, see Notation, p. 105; ground plan, p. 103.

Boots and Shoes.

46 Gates, Allen, & Bro., 413 Dillwyn streets, Philadelphia, Pa.—Ladies' machine-sewed turn boots, shoes, and slippers. Warranted equal in quality and workmanship to hand-made shoes. C 1–14. 251

47 Sollers, S. D., & Co., Philadelphia, Pa.—Infants' and children's shoes and slippers. C 1–14. 251

48 Richelderfer, J. H., Philadelphia, Pa.—Over gaiters and leggings. C 1–13. 251

49 Kelley & Moore, Philadelphia, Pa.—Ladies' shoes. C 1–12. 251

50 Targett, John, Philadelphia, Pa.—Boot, shoe, and gaiter patterns. C 1–12. 251

50*a* Claflin, Waldo M., Philadelphia, Pa.—Men's and boys' boots and shoes, with Estabrook, Wires, & Co. screws. C 1–12. 251

50*b* Pratt, Henry J., Abington, Mass.—Last-block fastening. D 1–6. 251

50*c* Butterfield, Wm., & Co., New York, N. Y.—Button fastener, and plate-lace hook. D 1–6. 251

50*d* Phinney, S. C. & J. G., Stoughton, Mass.—Boot and shoe counters, made of sole leather. D 2–4. 251

51 Schmid, Jacob, Philadelphia, Pa.—Ladies' boots and shoes. C 1–12. 251

52 Benkert, C., & Son, Philadelphia, Pa.—Gentlemen's boots and shoes. C 1–16. 251

53 Zaun, Jacob, & Son, Philadelphia, Pa.—Men's boots and shoes. C 1–13. 251

54 Dreisbach, Wm., & Co., Philadelphia, Pa.—Shoe bows and wooden heels. C 1–15. 251

55 Heulings, Abram, American Hotel, Chestnut street, opposite Independence Hall, Philadelphia, Pa.—Ice creepers which can be attached to any lady's or gentleman's boot or shoe, and worn alike in the parlor or on icy sidewalks. C 1–15. 251

56 Meyer, C. Adolph, Philadelphia, Pa.—French calf boots, shoes, and gaiters. C 1–12. 251

57 Helweg & Co., Philadelphia, Pa.—Boots and shoes. C 1–16. 251

59 Mayer & Stern, Philadelphia, Pa.—Ladies', children's, and infants' shoes. C 1–12. 251

60 Dalsheimer Bros., Philadelphia, Pa.—Ladies', misses', children's, and infants' shoes. C 1–15. 251

61 Sausser, Dangler, & Co., Philadelphia, Pa.—Women's, misses', and children's shoes. C 1–13. 251

62 Ziegler Bros., Philadelphia, Pa.—Ladies', misses', children's, and infants' shoes. C 1–14. 251

63 Laird, Schober, & Mitchell, Philadelphia, Pa.—Boots and shoes. C 1–15. 251

64 Schiff, W. L., Philadelphia, Pa.—Children's shoes, and ladies' white kid boots and slippers. C 1–15. 251

64*a* Claflin, Aaron, & Co., New York, N. Y.—Wax, grain, split, kip, and calf boots, brogans, etc. D 1–2. 251

64*b* Gittens, J. K., Brooklyn, N. Y.—Cork and wool insoles. C 2–13. 251

64*c* Saller, Lewin, & Co., Philadelphia, Pa.—Men's, boys', women's, and misses' boots and shoes. C 1–13. 251

64*d* De Haven, A. R., & Son, Philadelphia, Pa.—Ladies' hand-sewed boots and shoes. C 1–12. 251

64*e* Fontyn, George, Philadelphia, Pa.—Men's boots, shoes, and gaiters. C 1–13. 251

64*f* Reimel, Louis, Philadelphia, Pa.—Shoe uppers. C 1–14. 251

64*g* Gray Bros., Syracuse, N. Y.—Ladies' and misses' fine shoes. D 1–4. 251

65 Simonds, N. J., Woburn, Mass.—Bevel and moulded heel stiffenings from leather and leather boards. D 2–6. 251

66 Walker, J. H. & G. M., Worcester, Mass.—Boots. D 1–8. 251

67 Hamilton Web Co., Wickford, R. I.—Boot and gaiter webs. D 1–3. 251

68 Lilly, Young, Pratt, & Brackett, Boston, Mass.—Men's, boys', and youths' boots and shoes. D 1–3. 251

69 Connolly & Power, Boston, Mass.—Gentlemen's boots, shoes, and gaiters. D 2–6. 251

70 Haskell, B. C., & Dickerman, Boston, Mass.—Shoe findings, buckles, buttons, laces, button hooks, over gaiters, shoe trimmings, and tools. D 2–7. 521

70*a* Cushman, Ara, & Co., Auburn, Me.—Men's boots and shoes. D 2–7. 251

70*b* Henderson, C. M., Chicago, Ill.—Men's boots and shoes. D 2–4. 251

70*c* Krippendorf & Hart, Cincinnati, O.—Ladies', misses', and children's shoes. C 2–12. 251

70*d* American Novelty Shoe Co., Meadville, Pa.—Wooden shoes. D 2–4. 251

71 Jones, Frederick, & Co., Boston, Mass.—Boots and shoes. D 1–2. 251

72 Batcheller, E. & A. H., & Co., Boston, Mass.—Men's, boys', youths', women's, and misses' boots, shoes, and brogans. D 1–1. 251

72*a* De Waru, Laurens E., Philadelphia, Pa.—Boots and shoes showing the Gordian seam. D 1–3. 251

73 Henshaw, Ed., Boston, Mass.—Shoe findings, tools, store supplies, etc. D 2–7. 251

74 Aub, Hackenburg, & Co., Philadelphia, Pa.—Machine silk for leather work. D 1–5. 251

75 Jenkins, Lane & Sons, Boston, Mass.—Boots, shoes, and brogans. D 1–1. 251

76 Fogg, Houghton, & Coolidge, Boston, Mass.—Men's, boys', youths', women's, and children's boots and shoes. D 1–1. 251

77 Dane, J. F., Grinnell, & Co., Boston, Mass.—Men's boots, brogans, etc. D 1–3. 251

78 Robbins & Kelloggs, Boston, Mass.—Women's, misses', and children's shoes. D 1–3. 251

For classes of exhibits, numbered at end of entries, see Classification, Part I., pp. 27–45.

Boots, Shoes, Trunks.

79 Emerson's, Thomas, Sons, Boston, Mass.—Men's, boys', and youths' shoes. Manufacturers of hand and machine fine sewed and nailed work; owners of the patent for the celebrated "Hersome Gaiter." D 1–1. 251

80 Sears & Warner, Boston, Mass.—Shoe manufacturers' goods, lastings, and serges. D 1–8. 251

81 Peckert, Charles D., & Co., Lynn, Mass.—Ladies' and misses' boots and shoes. D 1–7. 251

82 Ventilating Waterproof Shoe Co., Lynn, Mass.—Ladies' and misses' boots. D 1–7. 251

83 The Moulded Heel Stiffening Co., Lynn, Mass.—Moulded rubber counters for boots and shoes. D 1–7. 251

83*a* Wood, W. D., & Co., Haverhill, Mass.—Boot and shoe trimmings. D 1–6. 251

83*b* Emerson, R. W., & Co., Boston, Mass.—Women's, misses', and children's pegged boots and shoes. D 1–1. 251

83*c* Mawhinney, H. H., & Co., Boston, Mass.—Boots and shoes. D 1–4. 251

83*d* Shaw, John, 2d, & Bro., Lynn, Mass.—Women's boots and shoes. D 1–7. 251

84 Tebbetts, Charles B., Lynn, Mass.—Ladies' and gents' boots, shoes, slippers, and fancy ties. D 1–7. 251

85 Woolredge, A. M., Lynn, Mass.—Ladies' shoes. D 1–7. 251

86 Bancroft, E. F., & Co., Lynn, Mass.—Ladies' and misses' boots and shoes, and ladies' and gents' fancy and plain slippers. D 1–7. 251

87 Mower & Bro., Lynn, Mass.—Ladies' and misses' boots and buskins. D 1–7. 251

88 Sweetzer, C. S., & Co., Lynn, Mass.—Ladies' and misses' boots. D 1–7. 251

89 Breed, W. F., Dole, & Co., Lynn, Mass.—Ladies' and misses' boots. D 1–7. 251

90 Breed, F. W., Lynn, Mass.—Ladies' boots and shoes. D 1–7. 251

91 Breed, A. F., Lynn, Mass.—Men's, ladies', and misses' boots and shoes. D 1–7. 251

92 Coffin, C. A., & Co., Lynn, Mass.—Men's boots and shoes. D 1–7. 251

93 Mudge, W. R., Lynn, Mass.—Leather, straw, and pattern boards, paper soles, stiffenings, etc. D 1–6. 251

94 Sutherland, I. G., Lynn, Mass.—Boot and shoe patterns, and sample boots and shoes. D 1–6. 251

95 Buffum, Charles, Lynn, Mass.—Ladies' and misses' boots. D 1–7. 251

95*a* Rogers, Evan T., San José, Cal.—Seamless gaiters and shoes. D 1–5. 251

95*b* Boynton & Bancroft, Lynn, Mass.—Shoe soles, sole leather and roundings. D 1–7. 251

95*c* Dawley & Derby, New York, N.Y.—Shoe lasts, boot trees, crimps, clamps, toe stretchers. D 2–4. 251

95*d* Reutzel, P. J., New York, N.Y.—Boot, shoe, and gaiter uppers. D 1–4. 251

95*e* National Boot & Shoe Tip Co., Boston, Mass.—Colored rawhide tips and toe protectors. D 1–2. 251

95*f* Dalsheimer, Leon, & Bro., Cam-den, N. J.—Boots and shoes. C–13

96 Mower, F. B., Lynn, Mass.—Ladies', misses', and children's boots. D 1–7. 251

97 Ordway & Clark, Haverhill, Mass.—Ladies' and gents' walking boots and slippers. D 1–6. 251

98 How, Moses, Haverhill, Mass.—Ladies' and misses' shoes and slippers. D 1–5. 251

98*a* Oliver, Stephen, jr., Lynn, Mass.—Women's boots and shoes. D 1–7. 251

98*b* Morgan & Dore, Lynn, Mass.—Ladies' boots and shoes. D 1–7. 251

98*c* Hawkins, Thos. H., Vineland, N. J.—Ladies', misses', and children's boots and shoes. D 1–5. 251

98*d* Turnbull & Samuels, Philadel-phia, Pa.—Composition heel. D 2–5. 251

98*e* Justh, E. L., Washington, D. C.—Improved shoes. C 1–15. 251

99 Goodrich & Whitehouse, Haver-hill, Mass.—Misses', children's, and infants' boots and shoes. D 1–6. 251

100 Goodrich & Porter, Haverhill, Mass.—Ladies' and misses' boots and shoes. D 1–5. 251

101 How, George C., Haverhill, Mass.—Kid slippers and ties. D 1–6. 251

102 Gardner Bros., Haverhill, Mass.—Ladies' and misses' boots and shoes. D 1–5. 251

103 Farrar, John B., Haverhill, Mass.—Gents' boots and opera and low-cut shoes. D 1–6. 251

104 Johnson, L., & Co., Haverhill, Mass.—Ladies' and gentlemen's shoes and slippers. D 1–6. 251

105 Nichols, George H., & Co., Haver-hill, Mass.—Men's boots and shoes. D 1–6. 251

106 Goodrich, J., jr., Haverhill, Mass.—Ladies' boots. D 1–6. 251

106*a* Parker, Charles F., & Co., Boston, Mass.—Boots and shoes. D 1–4. 251

106*b* Dohle, Henry, Omaha, Neb.—Boots and shoes. D 2–3. 251

106*c* American Wooden Shoe Co., Chi-cago, Ill.—Wooden shoes and slippers. 251

106*d* Estabrook, Wires, & Co., Milford, Mass.—Clinching screws for boots and shoes. E 1–14. 251

106*e* Foster & Quiggle, Milford, Mass.—Shoes made with Estabrook's clinching screws. E 1–14. 251

Trunks, Valises, etc.

107 Simon, Edward, & Bro., New York, N. Y.—Trunks, bags, bag frames and trimmings, and fancy brass goods. G 2. 255

Traveling Equipments, Harness, Rubber Goods.

108 Lagowitz, J., & Co., New York, N. Y.—Trunks, traveling bags, and satchels. G 2. 255

109 Hacker, J. C., & Co., New York, N. Y.—Pocket books, bill books, card and cigar cases, etc. G 2. 255

110 Lambert, P. W., & Co., New York, N. Y.—Pocket books, belts, toys, and Russia leather goods. C 1–16. 255

111 Gillmore, J. C., & Co., New York, N. Y.—Fine trunks, traveling cases and bags. G 1. 255

112 Thorne, John W., New York, N. Y. —Saratoga trunk and trunk clamp. G 1. 255

112*a* Peddie, T. B., & Co., Newark, N.J. —Trunks, valises, traveling bags, and ladies' satchels. G 2. 255

112*b* Roemer, William, Newark, N. J.—Trunks, bags, and shawl straps. G 1. 255

112*c* Rowen, John, Philadelphia, Pa.—Trunks, satchels, and pocketbooks. G 1. 255

112*d* Doughty, S. H., New York, N.Y. —Ladies' belts. D 1–5. 255

113 Crouch & Fitzgerald, New York, N. Y.—Trunks, valises, shawl straps, and leather goods. G 2. 255

115 Simpson, J. F., Philadelphia, Pa.—Trunk closer, lock, strap, and socket. G 1. 255

116 Watt, F. H., Philadelphia, Pa.—Trunks, traveling bags, and fancy leather goods. G 2. 255

117 Unruh, John, & Sons, Philadelphia, Pa. — Leather trunks and valises. G 1. 255

118 Waas, H. A., Philadelphia, Pa.—Trunk. G 1. 255

119 Palmer, Lt. George H., Nashville, Tenn. — Army, sportsmen's, travelers', and miners' equipments, adopted by the United States Army. Part proprietorship in foreign patents for sale. Foreign orders solicited. G 1. 255

Saddlery, Hardware.

120 Albright, Andrew, Newark, N. J.—Hard rubber-coated harness and carriage trimmings. D 2–2. 284

121 Celluloid Harness Trimming Co., Newark, N. J.—Celluloid martingale rings and harness mountings. D 2–1. 284

121*a* Osborn, H. F., Newark, N. J.—Saddlers' and harness-makers' tools and machinery. D 2–2. 284

122 Kuenhold, F. B., Newark, N. J.—Saddlery and coach hardware. D 2–2. 284

123 Crane & Co., Newark, N. J.—Flexible rubber bits, wrought hand-forged bits. D 2–2. 284

124 Theiberath, Charles M., & Bro., 10 and 12 Ward street, Newark, N. J. — Manufacturers of gold, silver, nickel-plated and leather covered harness mountings. D 2–3. 284

125 Manning, Robert, Newark, N. J.—Winkers and winker plates. D 2–1. 284

126 Buerman, August, Newark, N. J. —Saddlery and harness hardware, bits, spurs, etc. D 2–1. 284

127 Wiener & Co., Newark, N. J.—Saddlery, hardware, and trimmings. D 2–1. 284

128 Tompkins, Samuel E., & Co., Newark, N. J.—Tompkins' patent gig trees; coach pads and gig saddles; hames, bits, etc.; coach and saddlery hardware in silver, gold, or nickel. D 2–1. 284

129 Waldron, J. V., & Bro., New York, N. Y. — Crests, coats of arms, monograms, bits, bosses, rosettes, etc., for harness. D 2–1. 284

130 Reynolds, Samuel, & Co., Pittsburg, Pa. — Fine XC plate, silver plate, gold and japanned post bits, snaffle, ring bits and stirrups, iron gig and coach hames, all styles buckles, rings, loops, etc.; malleable iron castings for agricultural machinery. D 2–2. 284

131 Jenks, A. S., Philadelphia, Pa.—Driving bits. D 2–3. 284

131*a* Whelen, Richard P., New York, N. Y.—Bridle bits. D 2–3. 284

Fabrics of Vegetable, Animal, or Mineral Materials.

132 Davidson Rubber Co., 30 Franklin street, Boston, Mass.—Rubber goods, used in druggist, surgical, stationery, and fine rubber work. We use nothing but the finest stock, and make superiority in finish and quality our aim. C 2–8. 285

133 Gossamer Rubber Co., Boston, Mass. — Gossamer water-proof cloaks, coats, and overcoats, hats, caps, and umbrellas. C 2–11. 285

134 Taylor, W. B. S., 365 Broadway, New York, N. Y.—Gas tight flexible tubing, for portable light and gas stoves, and gas-proof cloth for gasometers. C 2–9 *and* 10. 285

135 Goodyear Rubber Co., New York, N. Y.—Rubber goods, enameled and table oil cloths. C 2–9 *and* 10. 285

136 National Rubber Co., Providence, R. I.—Rubber boots, shoes, clothing, cloths, stationers' and druggists' articles, mats, belting, hose, cushions, beds, pillows, etc. C 2–9 *and* 10. 285

137 New Brunswick Rubber Co., New Brunswick, N. J.—Rubber boots and shoes. C 2–11. 285

138 Vulcanized Fibre Co., Wilmington, Del.—Hard and flexible goods of vulcanized fibre. G 1. 285

139 Chadeayne & Christian, Yonkers, N. Y.—Rubber boots. G 1. 285

139*a* Star Rubber Co., Trenton, N. J.—India-rubber goods for mechanical purposes. G 1. 285

Carriages, Vehicles, and Accessories.

140 Peters Calhoun Co., Newark, N. J.—Harness, saddles, and bridles. E 1–12. 296

For classes of exhibits, numbered at end of entries, see Classification, Part I., pp. 27–45.

Harness, Leather-Working Machinery.

142 Kessler & Bro., Philadelphia, Pa.—Wooden and plated hames. E 1-5. 296

142*a* Karr, Wm., Karrsville, N. J.—Draft harness. E 1-1. 296

142*b* Crittenden, L. S., Cuba, N. Y.—Combination horse blanket and fly protector. E 1-12. 296

142*c* Hallett, Hervey H., Rockland, Mass.—Harness saddle. E 1-13. 296

142*d* Ries, Anton, Philadelphia, Pa.—Harness. E 1-4. 296

142*e* Taylor, Marshall B., Ludlow, Vt.—Whip lashes. E 1-5. 296

142*f* Hamly, Wm., Ripon, Wis.—Wire stitched horse collars. E 1-4. 296

142*g* Rosenthal, Henry, New York, N. Y.—Leather back horse brushes. F 1-1. 296

142*h* Heydecke, Wm., Newark, N. J.—Wood hames. E 1-13. 296

143 Haedrick, Henry G., & Sons, Philadelphia, Pa.—Harness and saddlery; preparation for polishing and dressing harness. E 1-10. 296

143*a* Burns & Degnan, St. Louis, Mo.—Ventilated side saddle. E 1-11. 296

144 Moyer, E. P., & Bros., Philadelphia, Pa.—Harness, saddlery, and trunks. E 1-3. 296

145 Hansell, W. S., & Sons, Philadelphia, Pa.—Harness and saddlery, and horse clothing. E 1-4. 296

146 Lynch, Anthony, Philadelphia, Pa.—Gold-mounted double and single harness. E 1-10. 296

147 Sallada & Pearson, Philadelphia, Pa.—Ladies' and gentlemen's riding and driving whips. E 1-13. 296

148 McFadden, Patrick, Philadelphia, Pa.—Single harness and saddlery. F 1-1. 296

149 Yeager, Daniel A., Media, Pa.—Double and single harness, riding saddles and bridles. E 1-2. 296

150 Wilson, R. F., Milton, Pa.—Fly nets. E 1-4. 296

150*a* Wrigglesworth, W. J., Darlington, Wis.—Horse collar, collar, cap, and pad. E 1. 296

150*b* Phillips, Samuel R., Philadelphia, Pa.—Harness, saddles, whips, etc. E 1-2. 296

150*c* Golcher Bros., Philadelphia, Pa.—Bridle winkers. F 1-1. 296

151 Weaver & Bardall, Western Penitentiary, Pittsburg, Pa.—Leather whips. E 1-13. 296

152 Moseman, C. M., & Bro., New York, N. Y.—Single and double harness and saddlery. E 1-1 *and* 9. 296

153 Korne & Currie, New York, N. Y.—Single and double harness. E 1-5. 296

154 Moore, Thomas, New York, N. Y.—Plain and fancy horse collars. E 1-2. 296

155 Manheim, William, New York, N. Y.—Harness loops and back curtain loops. F 1-2. 296

156 American Whip Co., Westfield, Mass.—Driving and riding and leather whips and lashes. F 1-1. 296

157 Wilder, J. Lyman, Hartford, Conn.—Patent leather harness work, rosettes, etc. E 1-5. 296

158 Hill, James R., & Co., Concord, N. H.—Single and double harness and collars. "The Concord harness" is made in all styles and of every description, from the lightest, finest, and most elegant in use, to the heaviest and strongest required for any kind of work. Are remarkable for style, workmanship, strength, and durability. Correspondence solicited. Circulars furnished on application. E 1-1 *and* 9. 296

159 Gale, A. D., Pittsfield, Mass.—Double coach harness and paper trunk. E 1-6. 296

160 Motts, George, Washington, D. C.—Gold mounted buggy harness. E 1-4. 296

161 Lighthouse, J. C., Rochester, N. Y.—Horse collars and pads. E 1-5. 296

162 Stewart, John P., Rochester, N. Y.—Carriage and draft horse collars. E 1-13. 296

162*a* Spencer, Robert, Brooklyn, N. Y.—Saddle cloths. E 1-13. 296

Leather Machinery.

163 Pusey, Jones, & Co., Wilmington, Del.—Tanning apparatus and glazing machine for morocco factory. E 2-3 *and* 10. 532

163*a* Mitchell, J. E., Philadelphia, Pa.—Curriers' blocks, clearing and scouring stones. A 2-2. 532

163*b* Smith, Wm. M., Philadelphia, Pa.—Device for regulating sewing machines. E 2-2. 532

163*c* Stoddard & Fifield, North Brookfield, Mass.—Skiving machines. F 2-1. 532

163*d* Carl, Frederick, Somerville, Mass.—Model of stuffing mill for leather. E 2-9. 532

163*e* Lewis, Rufus E., New Hampton, N. H.—Machine for currying leather. F 2-3. 532

163*f* Bowser, J. C., Fort Wayne, Ind.—Stationary engine, boiler, and fixtures. E 2-1. 532

163*g* Newton, E. P., Gloversville, N. Y.—Glove, mitten, and leather cutting machines. F 2-4. 532

164 Walters, G. C., Philadelphia, Pa.—Wet-skin sewing machine. E 2-2 *and* 9. 532

166 Horn, W. H., & Bro., Philadelphia, Pa.—Tanners', curriers', and shoemakers' tools and machinery. D 2-3. 532

167 Osborne, C. S., & Co., 96 Mechanic street, Newark, N. J.—Saddlers' and harness makers' tools. Manufacturers of saddlers' and harness makers' tools of superior quality and finish. Established 1826. Send for catalogue. E 2-4 *and* 11. 532

Leather-Working Machinery and Tools.

168 Knox, David, Lynn, Mass.—Pebbling and polishing machine; sole-cutting machine. F 2-4. 532

168*a* McLaughlin, Grover, & Lloyd, New York, N. Y.—Machine knives, leather, cloth, and paper dies or cutters. D 2-5. 532

168*b* Sturtevant, Benjamin F., Boston, Mass.—Hot blast apparatus for tanneries and curriers' shops. F 2-1 *and* 2. 532

169 Coogan, Owen, Pittsfield, Mass.—Boarding and graining machine. E 2-9. 532

170 Reed, Harvey, Vineland, N. J.—Combination tannery. F 2-5. 532

171 Lockwood, Frederick A., Fall River, Mass.—Automatic leather-scouring machine. E 2-12. 532

172 Baker, George W., Wilmington, Del.—Skin-sewing machine. E 2-9 *and* 2. 532

173 Fisk, Joseph E., Salem, Mass.—Leather-whitening and buffing machine. E 2-10. 532

174 Lampert, Henry, Rochester, N. Y. —Round beam hide worker. E 2-9. 532

175 Rosensteel, W. H., Johnstown, Pa.—Model of leather-dressing machine. F 2-5. 532

176 Thompson & Nowell, Boston, Mass.—New patent bark-cutting and rossing machine. Tanners are respectfully invited to examine the machine and obtain circulars of information. E 2-3. 532

177 Swain, Fuller, & Co., Lynn, Mass. —Beating-out, moulding, and buffing machines. E 1-6 *and* 14. 532

178 Plummer, W. E., Boston, Mass.—Leather, buffing, whitening, and skiving machine; rotary tan press; round leach for leaching bark. E 2-5 *and* 11. 532

179 Gibson, F. N., New Ipswich, N. H. —Raising, creasing, and waving machine for harness makers, etc. F 2-6. 532

179*a* Harkinson, Robert, Philadelphia, Pa.—Hooks for tanners' use. A 2-3. 532

Shoe Machinery.

180 Tapley Heel Burnishing Machine Association, Boston, Mass.—Heel-burnishing machine. E 1-7 *and* 15. 533

180*a* Stowe, A. F., Worcester, Mass.—Splitting, rolling, boot shaping, and side welt machines. F 2-1. 533

180*b* Morse, Eddy, & Co., Boston, Mass. —Wax thread, tripp sewing, burnishing, leveling, and sole cutting machines. F 2-1. 533

180*c* Union Edge Setter Co., Lynn, Mass.—Edge burnisher for boots. E 1-15. 533

180*d* Hall, M. H., Philadelphia, Pa.—Cutting machine for boots and shoes. F 2-4. 533

180*e* Domestic Sewing Machine Co., New York, N. Y.—Boot and shoe sewing machines. E 2-9. 533

181 Tubular Rivet Co., Boston, Mass. —Rivets for boots, shoes, harness, belting, etc. F 2-6. 533

182 American Shoe Tip Co., Boston, Mass.—Boots and shoes with wire-quilted soles and toe protection. F 2-7. 553

183 Roney, James B., Philadelphia, Pa. —Shoe trimming and edge setting machine. E 1-10 *and* 14. 533

184 Howe Machine Co., Bridgeport, Conn.—Boot and shoe sewing machines. F 2-3. 533

185 Buzzell, J. G., & Co., Lynn, Mass. —Buffing and heel securing machines. F 2-3 *and* 6. 533

186 Carver Cotton Gin Co., East Bridge-water, Mass.—Leveling, counter skiver, and welt cutter, and shank machines. F 2-5. 533

187 McKay Sewing Machine Associa-tion, Boston, Mass.—Shoe sewing and riveting machines and out-sole tacker. The McKay Sewing Machine is in use for sewing soles to boots and shoes; will sew nine hundred pairs per day; thirty-five million pairs are annually sewed on it in the United States. The riveting machines are for riveting soles to boots and shoes. The rivets are corrugated, automatically cut to the proper length, and firmly clinched on the insole. Three hundred pairs per day can be riveted, either in a channel or on the surface. The outsole tackers are for laying out soles. The nails clinch, are thoroughly buried in the insole, and always hold the sole. E 1-15. 533

188 May, Withey, & Drake, Lynn, Mass.—Shoe drying machine. F 2-6. 533

189 Stimpson, Edwin B., New York, N. Y.—Shoe machinery. E 1-6 *and* 14. 533

190 Hanan & Dewees, New York, N. Y.—Cutting dies and punches, shoe patterns, and lasts. D 2-7. 533

191 Hautin Sewing Machine Co., New York, N. Y.—Shoe sewing machine. E 2-11. 533

191*a* Saurbier, H., & Sons, Newark, N. J.—Saddlers', tanners', and shoemakers' tools. F 1-2. 533

191*b* Barnett, G. & H., Philadelphia, Pa.—Shoe rasps and files. D 2-2. 533

191*c* American Cable Screw Wire Co., Boston, Mass.—Screw, cable screw wire, and tacking machines. E 2-10. 533

191*d* Sturtevant, B. F., Boston, Mass. —Steam blowers and peg machine. F 2-1-2. 533

191*e* Whittemore, D., Boston, Mass.—Shoe and harness machines. F 1-5, 6, *and* 7. 533

191*f* Heaton, David, Providence, R. I. —Button fastener. E 2-3. 533

192 S. W. Jamison Boot & Shoe Crimping Machine Co., New York, N. Y. —Steam boot and shoe crimping machine. E 2-6 *and* 13. 533

192*a* Wheeler & Wilson Manufacturing Co., Bridgeport, Conn.—Shoe sewing machines. E 2-4 *and* 11. 533

192*b* Smith, W. M., Philadelphia, Pa.—Device for driving sewing machines. E 2-2. 533

192*c* Stephens, W. A., Philadelphia, Pa.—Sole screwing machine. E 2-13. 533

For classes of exhibits, numbered at end of entries, see Classification, Part I., pp. 27-45.

Leather-Working Machinery and Tools, Leather.

192*d* Kafer & De Lacy, Trenton, N. J.—Steam burnishing iron heater. E 2–7. 533

193 Goodyear & McKay Sewing Machine Association, Boston, Mass.—Shoe sewing machines. E 1–8 *and* 16. 533

194 Graves, L. S., Rochester, N. Y.—Machines for stripping, splitting, rolling and moulding, and heel pressing. E 2–7 *and* 14. 533

196 Cutlan Shoe Sewing Machine Co., Philadelphia, Pa.—Turned shoe sewing machine, channeler and edge turner. F 1–8. 533

197 Redifer, S. S., Philadelphia, Pa.—Shoe lasts, patterns for dies. D 2–5. 533

198 Miller, Thomas L., Philadelphia, Pa.—Beveling, channeling, moulding, and sewing machines for shoes. F 1–8. 533

200 Cushman, C. S., Philadelphia, Pa.—Leather and shoe stitching attachment. E 1–12. 533

201 Evans, Thomas R., Philadelphia, Pa.—Boot and shoe tree, lengthener, stretcher, and lasts. D 2–5. 533

202 Smith, J. Barton, & Co., Philadelphia, Pa.—Rasps and files for shoemakers and manufacturers. E 2–13. 533

203 Graf, Leopold, Newark, N. J.—Shoe burnishing and polishing machine. F 2–4. 533

203*a* Tuck, S. V., Brockton, Mass.—Shoe knives and tools. D 2–6. 533

203*b* Tingley, John, Philadelphia, Pa.—Rotating detachable shoe heel, and machine for attaching. D 1–5. 533

Animal and Vegetable Products.

204 Wedekind, Hallenburg, & Bro., Louisville, Ky.—Oak sole leather. B 2–3 *and* 10. 652

205 Trautwein, C., & Co., Louisville, Ky.—Chestnut oak sole leather. B 2–3 *and* 10. 652

206 Stoll, J. B., & Co., Louisville, Ky.—Oak skirting leather. B 2–3 *to* 10. 652

207 Ohio Falls Oak Leather Co., Louisville, Ky.—Oak harness, bridle, and belting leather. B 2–3 *and* 10. 652

208 Conrad, Fabel, & Mooney, Louisville, Ky.—Oak sole leather. B 2–3 *to* 10. 652

209 Schellberg, B. F., Germania P. O., Ala.—Rough leather. A 2–7. 652

210 Burt, F. H., & Son, Mannington, W. Va.—Oak sole leather. A 1–6. 652

211 Wisconsin Leather Co., Milwaukee, Wis.—Sole, upper, and harness leather. A 1–5, B 2–5. 652

212 Hidden, E. S., Milburn, N. J.—Leather boards for shanking insoles and counters by improved process; also, patent excelsior carriage washers from compressed leather fibre. A 2–1. 652

213 Hurkamp, J. G., Fredericksburg, Va.—Virginia sumac. A 2–3. 652

213*a* Baer, A. P., & Co., Baltimore, Md.—Chestnut oak extract; quercitron and chestnut oak bark. A 1–5. 652

214 Leas & McVitty, Philadelphia, Pa.—Oak sole leather. A 2–6. 652

215 Keen & Coates, Philadelphia, Pa.—Oak-tanned sole leather for finest boot and shoe work. A 2–7. 652

216 Williams', Chas. B., Sons, Philadelphia, Pa.—Oak-tanned slaughter sole leather. A 2–6. 652

217 Horton, Crary, & Co., Sheffield, Pa.—Hemlock sole leather. A 1–5. 652

218 Shriver, A. K., & Sons, Union Mills, Md.—Oak sole leather. A 1–5. 652

219 Sommerville, Jas. N., Bellefonte, Pa.—Oak sole and belt leather. A 1–6. 652

220 Downing & Price, Wilmington, Del.—Oak sole and belt leather. A 1–6. 652

221 DeLong Bros., Philadelphia, Pa.—Oak rough slaughter leather. A 2–7. 652

222 Spanogle & Pennabaker, Philadelphia, Pa.—Oak sole leather. A 2–6. 652

223 Hibernia Tannery, Blaine, Pa.—Buenos Ayres sole leather. A 2–5 *and* 6. 652

224 Hench, Geo., Centre, Pa.—Oak sole leather. A 2–5 *and* 6. 652

225 Hench, A. L., Alum Banks, Pa.—Hemlock sole leather. A 2–5 *and* 6. 652

226 McNeal & Black, Man's Choice, Pa.—Slaughter sole. A 2–5 *and* 6. 652

227 Mapleton Tannery, Mapleton, Pa.—Texas sole. A 2–5 *and* 6. 652

228 Rife, Henry J., Philadelphia, Pa.—Sole and harness leather, and finished calfskins. A 2–5. 652

229 Forepaugh, W. F., & Bro., Philadelphia, Pa.—Oak-tanned whole hides. A 1–4. 652

230 Leas, Wm. B. Shirley, Tannery, Philadelphia, Pa.—Oak sole leather. A 1–4. 652

231 Hoffman, Jacob, Philadelphia, Pa.—Oak sole leather. A 2–5. 652

232 Rosensteel, W. H., Johnstown, Pa.—Union crop leather. A 1–7. 652

233 Hardenburgh, Hartwell, & Co., English Centre, Pa.—Sole leather. A 1–5. 652

234 Howard, J. W. & A. P., & Co., Corry, Pa.—Hemlock sole leather. A 1–5. 652

235 Greenawalt, J. & J. K., Harrisburg, Pa.—Oak sole, harness, wax upper, kip, and calf leather. A 2–6. 652

236 Wilkinson, J. P., & Bro., Unionville, Pa.—Oak sole and harness leather. A 2–7. 652

237 Underhill & Noble, Athens, Pa.—Hemlock sole leather. A 1–7. 652

238 Ray, Daniel P., Tyrone, Pa.—Union crop sole leather. A 2–7. 652

239 Webb, Wm. B., Frankford, Pa.—Leather aprons for worsted machinery, picker, band, and lace leather. A 2–7. 652

For location of objects, indicated by letter and figure, see Notation, p. 105; ground plan, p. 103.

Leather.

240 Bechtel, John A., & Son, Newport, Pa.—Oak sole leather. A 2-6. 652

241 Mosser & Keck, Allentown, Pa.—Union crop backs. A 2-7. 652

242 Genseman, Miller, & Co., Pinegrove, Pa.—Oak slaughter sole leather. A 2-7. 652

243 Rippman, C. A., Newport, Pa.—Slaughter sole and rough skirting leather. A 2-7. 652

244 Kerper, Henry, Reading, Pa.—Oak rough leather. A 2-7. 652

244*a* Spaulding, Edward, Boston, Mass.—Hemlock sole leather. A 1-5. 652

244*b* Chatfield, Underwood, & Co., New York, N. Y.—Oak sole and rough leather. A 2-4. 652

244*c* Thorne, McFarland, & Co., New York, N. Y.—Hemlock sole leather, from Thorndale, Laporte, and Torvanda tanneries. A 1-7. 652

244*d* Faust, Alvin, D., & Son, Upper Dublin, Pa.—Oak sole and rough leather. A 2-7. 652

244*e* Corbin, A., & Co., New Milford, Pa.—Hemlock sole leather. A 1-7. 652

245 Bare, John, Mt. Union, Pa.—Union crop sole leather. A 2-7. 652

246 Baer, Arthur P., & Co., hide & leather dealers, Nos. 7 & 9 Cheapside, Baltimore, Md., proprietors of Schlosser Tannery.—Slaughter oak sole leather. Vienna medal. A 1-4. 652

247 Deford & Co., First National & Battle Run Tanneries, Baltimore, Md.—Slaughter sole leather. A 2-4. 652

248 Appold, Geo., & Sons, Baltimore, Md.—Slaughter oak sole leather. A 2-4. 652

249 Jenkins, Staylor, & Co., Baltimore, Md.—Oak sole leather, from the Baltimore Star, Mt. Vernon, Swift-Run, and Prospect tanneries. A 2. 652

249*a* Halsey, Saml., & Son, Newark, N. J.—Patent and enameled leather. B 1-5. 652

249*b* Buck, C., Fleming, Pa.—Oak sole leather. A 2-7. 652

249*c* Maynard, Ely & Roso, Baltimore, Md.—Calf and kip skins. D 2. 652

249*d* Lapham, Smibert, & Co., Chicago, Ill.—Sole leather. A 1-6. 652

249*e* Robertson & Hoople, New York, N. Y.—Hemlock sole leather. A 1-7. 652

249*f* Frantz, D., & Son, Louisville, Ky.—Oak sole leather. A 2-3. 652

250 Decker, David, Wellsburg, N. Y.—Union back sole leather. A 2-4. 652

251 Palmer & Decker, Elmira, N. Y.—Union back sole leather. A 2-4. 652

252 Kinley, Adam, Breesport, N. Y.—Union crop sole leather. A 2-5. 652

252*a* Shultz, Southinck, & Co., New York, N. Y.—Hemlock and Union crop sole leather. A 1-8. 652

253 Osterhout, W. H., Ridgway, Pa.—Hemlock sole leather. A 1-8. 652

254 Wilcox Tanning Co., Wilcox, Pa.—Hemlock sole leather. A 1-8. 652

255 Innes, Adam, Granville Centre, Pa.—Union slaughter backs sole leather. A 1-8. 652

256 Innes, Adam, Grovers, Pa.—Crop sole leather. A 1-8. 652

257 Childs & Bloomer, Nicholson, Pa.—Slaughter crop sole leather. A 1-8. 652

258 McKinstry & Childs, Schultzville, Pa.—Slaughter crop leather. A 1-8. 652

259 Hoyt, J. B., & Co., New York, N. Y.—Oak-tanned leather belting. A 1-4. 652

260 Hoyt Bros., New York, N. Y.—Hemlock sole leather. A 2-3. 652

261 Brown, E. T., & Co., 82 Gold street, New York, N. Y.; Luzerne Tannery, James Davis & Co., Pittston, Pa.—Union crop sole leather; very solid, fair color. A 2-4. 652

262 Lee, W. Creighton, Salladaybush & Tioga Tanneries, New York, N. Y.—Hemlock sole leather. A 1-7. 652

263 Hubbard & North, Oswego, New York, N. Y.—Hemlock sole leather. A 1-6. 652

264 Wells, Henry F., Germania Tannery, Ludleytown, N. Y.—California hemlock sole leather. A 1-6. 652

265 Kenyon, J. A., & Co., Trout Creek Tannery, Cannonville, N. Y.—Texas hemlock sole leather. A 1-6. 652

266 Bulkley, J. E., & Sons, New York, N. Y.—Hemlock sole leather. A 1-8. 652

267 Horton, G. B., & Co., New York, N. Y.—Hemlock sole leather. A 1-7. 652

268 Lapham, H. G., Tunkhannock Tannery, Tunkhannock, Pa.—Union back sole leather. A 2-4. 652

269 Rockwell Bros., Clarendon Tannery, Warren, Pa.—Hemlock sole leather. A 1-7. 652

270 Costello, P. & P., Camden Tannery, Camden, N. Y.—Hemlock sole leather. A 1-7. 652

271 Beach & Dodge, Harrisville, Lewis Co., N. Y.—Hemlock sole leather. A 2-7. 652

271*a* Prichett & Baugh, Philadelphia, Pa.—Oak sole leather from Strasburg, Path, and Franklin tanneries. A 2-3. 652

271*b* Kirkpatrick, Kinzey & Co., Philadelphia, Pa.—Union sole leather. A 2-4. 652

271*c* Howell, Joseph & Co., Philadelphia, Pa.—Oak sole leather. A 2-3. 652

271*d* Hersey, Washburn, & Co., Boston, Mass.—Hemlock sole leather. A 1-3. 652

271*e* Steinwand, Chas., Philadelphia, Pa.—Calf and kip skins. B 2-13. 652

272 Adams & Shaler, New York, N. Y.—Sole leather. A 1-8. 652

273 Thomas Extract Co., Elmira, N. Y.—Sole leather and belting leather, tanned with Thomas's clarified extract of hemlock bark exclusively, and with other tanning materials, in various percentages. A 2-5. 652

For classes of exhibits, numbered at end of entries, see Classification, Part I., pp. 27-45.

Leather.

274 Perry, F. H., & Co., Limestone, N. Y.—Hemlock sole leather. A 1-7. 652

275 Lampert, Henry, Rochester, N. Y. —Sole and upper leather. E 2-9. 652

276 Devereaux, A., & Son, Deposit, N. Y.—Hemlock sole leather. A 1-5. 652

277 Spaulding, Edward, Boston, Mass. —Hemlock sole leather. A 1-5. 652

279 Proctor, Thos. E., Boston, Mass. —Hemlock sole leather, curried leather, and splits. A 1-5. 652

280 Fairbrother, H. L., & Co., Pawtucket, R. I.—Belting lace and hame string leather. A 1-4. 652

281 Jewett & Keating, Buffalo, N. Y.—Hemlock sole leather. A 1-6. 652

282 Williams, C. H., & G. L., Buffalo, N. Y.—Hemlock sole leather. A 1-6. 652

283 Rumsey, A., & Co., Buffalo, N. Y. —Hemlock sole leather. A 1-6. 652

284 Gardner, N. H., & Co., Buffalo, N. Y.—Hemlock sole leather. A 1-6. 652

285 Schoellkopf, J. F., & Son, Buffalo, N. Y.—Hemlock sole leather. A 1-6. 652

286 Rose, Adolf, Buffalo, N. Y.—Hemlock sole leather. A 1-6. 652

287 Bush & Howard, Buffalo, N. Y.—Hemlock sole leather. A 1-6. 652

288 Nepper, E. & D., Cincinnati, O. —Oak sole leather. A 2-5. 652

289 Elasas & Pritz, Cincinnati, O.—Oak sole leather. A 2-5. 652

290 Ballauf, Louis, Cincinnati, O.—Oak sole leather. A 2-5. 652

291 Steigler, A., & Co., Cincinnati, O.—Oak sole, harness, and skirting leather. B 2-11. 652

292 Kessler, Henry, Cincinnati, O. —Oak sole and harness leather. A 2-5. 652

293 Lang & Wanner, Cincinnati, O. —Oak sole and harness leather. A 2-5. 652

294 Bardes, Louis C., Cincinnati, O. —Harness leather. B 2-4. 652

295 Lawrence, John H., Cincinnati, O.—Skirting, calf, seating, and bridle leather. B 2-11. 652

296 Martin & Riedle, Cincinnati, O. —Russet leather. B 2-11. 652

297 Freiberg, Henry, Cincinnati, O. —Harness leather. B 2-11. 652

298 Lappe & Hax, Pittsburg, Pa.—Oak butts and rough skirting leather. A 2-4. 652

Harness, Kip, and Calf.

299 Groetzinger, A. & J., Alleghany City, Pa.—Oak sole leather. A 2-4. 652

300 Alexander, E. H., Alleghany City, Pa.—Imitation French calf and kip skins. B 2-13. 652

300*a* Wunderlich, Reinhard, New Albany, Ind.—Harness leather. B 2-3-10. 652

300*b* Day, Theodore, New Albany, Ind. —Wax leather. B 2-8-10. 652

300*c* Schuman, John W., Louisville, Ky.—Oak harness leather. B 2-3-10. 652

300*d* Rockenback, H., New Albany, Ind.—Harness leather. 2-3-10. 652

301 Woelfel, Fred'k, Alleghany City, Pa.—Harness leather. B 2-12. 652

301*a* Halsey, Samuel, & Son, Newark, N. J.—Patent and enameled leather. B 1-5. 652

301*b* Hahn, H., & Stumpf, East Newark, N. J.—Wax calfskins. B 2-11. 652

301*c* Wetzlar, Albert, New York, N. Y. —Calf, kip, wax upper and split leather. B 2-5. 652

301*d* Steinmand, Charles, Philadelphia, Pa.—Calf and kip skins. B 2-13. 652

301*e* Straus, M., Newark, N. J.—Leather. B 2-9. 652

301*f* Baltimore Calfskin Association, Baltimore, Md.—Calfskins rough, finished, and in the hair. B 2-6. 652

301*g* Loeb & Bros., Philadelphia, Pa.—Waxed calfskins. B 2-11. 652

301*h* Maynard, Ely, & Rose, Baltimore, Md.—Finished calf and kip skins. B 2-11. 652

302 Kiefer, Stiefel, & Co., Alleghany City, Pa.—Harness leather. B 2-12. 652

303 Holstein, A., Alleghany City, Pa.—Harness leather. B 2-5. 652

304 Lappe & Hax, Alleghany City, Pa. —Harness leather. B 2-5. 652

305 Lappe, J. C., Alleghany City, Pa.—Harness leather. B 2-5. 652

306 Callery, Jas., & Co., Pittsburg, Pa. —Harness and saddlers' leather. B 2-5. 652

307 Braun, Frederick, Philadelphia, Pa.—Calf and kip skins. B 2-13. 652

308 Ludy, C., & Sons, Philadelphia, Pa.—Finished oak calfskins. B 2-11. 652

309 Wensley, Jas., Philadelphia, Pa.—Shoe uppers. B 2-13. 652

310 Schuman, F., & Son, Philadelphia, Pa.—Calf and kid leather. B 1-6. 652

311 Chambers, Edwin, West Chester, Pa.—Finished calfskins. B 2-6. 652

312 Mardorf, C., Freeport, Pa.—Harness, calf, veal kip, and upper leather. B 2-13. 652

313 Hollinger, Amos, Lancaster, Pa.—Oak harness leather. B 1-4. 652

314 New York Manufacturing Leather Co., New York, N. Y.—Leather cloth for upholstering and carriages. B 2-5. 652

315 Moffat, David, & Co., New York, N. Y.—Oak-tanned harness leather. B 2-7. 652

316 Michel, A. M., New York, N. Y.—Buff, grain, and calf skins; harness leather; boots and shoes. B 2-5. 652

317 Brown, Elijah T., & Co., 82 Gold street, New York, N. Y.—Cromwell's finished calfskins, sold in this market twenty years; have a high reputation in foreign markets. B 2-12. 652

318 Shattuck & Binger, New York, N. Y.—Tanned alligator skins, black and colored. B 2-12. 652

For location of objects, indicated by letter and figure, see Notation, p. 105; ground plan, p. 103.

Leather.

319 Studwell, Sanger, & Co., New York, N. Y.—Imitation goat, splits and buff; finished calf, russet and union backs. B 2-12 *and* A 2-6. 652

320 Haubner & Heller, New York, N. Y.—Finished calf and kip skins. A 2-3. 652

321 Thomas Extract Co., Elmira, N. Y. —All kinds of light leather tanned with Thomas's clarified extract of hemlock bark exclusively, and with other tanning materials in various percentages. Thomas's bark granulating mill. B 2-12. 652

322 Weed, J. B. & F. M., & Co., Binghamton, N. Y.—Imitation goat, split, kip, and harness leather. B 2-12. 652

323 Miller, J. & J., & Co., Boston, Mass. —Hemlock extract and leather tanned by same. B 2-2. 652

324 Osborne, F., jr., & Co., Boston, Mass.—New Orleans kip leather, plain and buffed. B 2-2. 652

325 Butler, Dunn, & Co., Boston, Mass. —Buff leather made from slaughter hides. B 2-1. 652

326 Thompson, B. F., & Co., Boston, Mass.—Buff and split leather; also, imitations of goat, kid, and morocco insides, of grain leather. B 1-1. 652

326*a* Scofield & Stevenson, New York, N. Y.—Calfskins, harness, wax upper, grain and welt leather. B 2-5. 652

326*b* Beiser, A. & J., New York, N. Y. —Cordovan leather. A 2-2. 652

326*c* Karrer, Joseph & Aaron, Detroit, Mich.—Calf and kip leather. B 2-12. 652

326*d* Herring, W. P., & Co., Governeur, N. Y.—Rough hemlock calfskins. B 2-7. 652

326*e* Schaff, Wm., & Co., Louisville, Ky.—Harness leather. B 2-3-10. 652

326*f* England & Bryan, Philadelphia, Pa.—Finished shoes kirting, waxed upper and split leather. A 2-1. 652

327 Cummings, John, & Co., Boston, Mass.—Imitation goat, polish grain, calf, split, and buff leather. B 2-2. 652

327*a* Stengel, George, Newark, N. J.— Patent leather. B 1. 652

327*b* Spanogle, Samuel, Nassville, Pa. —Rough kip and calf leather. B 2. 652

327*c* Barth, A., & Co., Louisville, Ky.— Harness, skirting, and wax leather. B 2, 3-10. 652

327*d* Mooney, W. W. & J. E., Columbus, Ind.—Sole, harness, skirting, and belt leather. B 2, 3-10. 652

328 Guild, Josiah F., Boston, Mass.— Pebble grain, imitation goat, buff, and split leather. B 2-9. 652

329 Proctor, Thomas E., Boston, Mass. —Curried leather and splits. B 2-8. 652

330 Way, John S., & Co., Bridgeport, Conn.—Leather, buffalo robes. A 2-1. 652

331 Zipp, Philip C., Baltimore, Md.— Calf, kip, and grain leather. B 2-6. 652

332 Appold, George, & Sons, Baltimore, Md.—Chestnut, oak-tanned calf skins. B 2-4. 652

333 Sharp, Tudor, & Co., Baltimore, Md.—Oak buff upper leather, and rough skirting. A 2-2. 652

334 Cunningham & Co., Nashville, Tenn.—Oak harness and rough leather. B 2-1. 652

336 Wisconsin Leather Co., Milwaukee, Wis.—Harness, wax upper, and split leather. B 2-5. 652

337 National Leather Co., Detroit, Mich.—Whip, lace, and upper leather, calfskins and robes. A 2-2. 652

338 Weil, J., & Bros., Chicago, Ill.— Upper, harness, kip, and calf leather. B 2-8. 652

339 Walker, Oakley, & Co., Chicago, Ill.—Wax calf union tannage, imitation goat grains, wax upper, card leather. B 2-8. 652

Morocco and Sheep.

340 Foster, A. J., & Co., Boston, Mass. —Grain leather, goat and sheep skins. B 2-14. 652

341 Ely, Henry G., & Co., New York, N. Y.—Imitation goat pebbled leather, finished wax-split leather. B 2-14. 652

342 Rockwell, J. S., & Co., New York, N. Y.—Sheep leather. Manufacturers of colored and russet linings; pebbled sheep in all colors; white and colored skivers for shoe manufacturers; hatters' skivers; trunk and bag leather and linings; bookbinders' and pocket-book makers' leather of every kind; suspender and organ leather; sumac and alum roans and skivers. This exhibit is entirely of sheep leather. B 1-16. 652

343 Guion, Geo. G.—New York, N. Y.— Morocco leather. B 1-7. 652

344 Howell, T. P., & Co., Newark, N. J. —Harness, patent, Russia, and pocket-book leather, sheepskin mats, and roans. B 1-8. 652

345 Meyer, Richard, New Durham, N. J.—Superior buck skins, for pianoforte, shoe, glovemakers, and others. B 1-14. 652

346 Pusey, Scott, & Co., Wilmington, Del.—Kid, straight-grain pebbled, and French morocco. B 2-7. 652

347 Jones, W., & Co., Wilmington, Del. —Morocco leather. B 2-14. 652

348 Bush, Wm., & Co., Wilmington, Del.—Morocco leather. B 1-8. 652

349 Larrabee, E., & Sons, Baltimore, Md.—Colored roans and linings, buff splits and wax uppers. B 1-15. 652

350 Wentz & Clark, Philadelphia, Pa. —Morocco leather. B 1-14. 652

351 Bockius, Geo., Philadelphia, Pa.— Morocco leather. B 1-5, *and* G 1. 652

352 Wood, Geo., Philadelphia, Pa.— Morocco and sheep leather. B 1-13. 652

353 Schollenberger, Wm., & Sons, Philadelphia, Pa.—Calf, kid, sheep alum, and roan leather; satchels, pocket books, and fancy leather goods. B 1-12. 652

354 Amer, Wm., & Co., Philadelphia, Pa.—Morocco leather. B 1-4. 652

355 O'Callaghan, Francis O., Philadelphia, Pa.—Skivers and sheep skins. B 1-13. 652

356 Hummel, G. W., & Co., Philadelphia, Pa.—Morocco leather. B 1-12. 652

For classes of exhibits, numbered at end of entries, see Classification, Part I., pp. 27-45.

Leather, Saddlery, Furs.

357 McNeely & Co., Philadelphia, Pa.—Morocco leather, sheepskins, and skivers. B 1-4. 652

358 Adams & Keen, Philadelphia, Pa.—Morocco and kid leather. B 1-14. 652

359 Bronx Wool & Leather Co., New York, N. Y.—Morocco and sheep leather. B 1-15. 652

360 Locher & Atkinson, Baltimore, Md.—Morocco. B 1-6. 652

361 Martin, A. B., & Co., Lynn, Mass.—Kid and goat morocco leather. B 1-6. 652

362 Block, A., & Co., Philadelphia, Pa.—Colored sheepskins. B 1-6. 652

363 Seavey, Foster, & Bowman, Philadelphia, Pa.—Machine silk twist. D 1-6. 652

GREAT BRITAIN.

West of Centre Aisle, Sect. C., Col. 3 to 4.

1 Brookes, W., & Sons, Walsall, England.—Saddlery. 296

2 Wilson, Walker, & Co., Leeds, England.—Colored skivers, calf, roans, moroccos, and kids, in every style of finish and for all purposes. 652

3 Edinburgh Western Tanning Co., Edinburgh, Scotland.—Hog skins for saddlery. 652

4 Hooper, Cleve, jr., London, Eng.—Colored skivers and basils, materials for tanning and making glue. 652

5 Hooper, C. W., & Sons, London, Eng.—Materials for tanning and making glue. 652

6 Angus, George, & Co., Liverpool, Eng.—Oak sole leather. (*In U. S. section.*) A 2-3. 652

GERMANY.

West of Centre Aisle, Sect. C, Col. 2 to 3.

1 Wolf, S., Mainz.—Shoes. 251

2 Spicharz, P. J., Offenbach.—Calf, glove, and French kid. 652

3 Simon, C., & Son, Kirn.—Colored and black moroccos, and calfskins. 652

4 Meyer, E., Berlin.—Colored glove kid. 652

5 Bruning, H. W., Neumunster.—Smooth and grained calf, kid and upper leather. 652

6 Schaller, G., Laher Baden.—Colored and black moroccos. 652

7 Kaumanus, F. H., Ehrenbreitstein, B. A.—Sole leather, rheinish oak slaughter sole. 652

RUSSIA.

West of Centre Aisle, Sect. C, Col. 1 to 3.

1 Bauerfeind, Adolphus, Warsaw.—Russian and calf leather. 652

2 Panisheff, John, Mournshkine, Government of Nijnii Novgorod, district of Makarief.—Sheepskins, dressed and half dressed. 652

3 Alafoozoff & Alexandroff, Kazan.—Russian leather. 652

4 Mikhailoff, Alexis, Moscow.—Furs, sable, ermine, Korsard fox, Siberian squirrel. 652

5 Grunwald, Morice, Riga.—Furs, and stuffed fur animals. 652

6 Komaroff, Nicetas, Moscow.—Sheep and lamb skins, dressed. 652

7 Solin Bros., Nijnii Novgorod.—Seal grease. 652

8 Ossipoff, Michael, Kieff.—Tallow. 652

9 Zinovieff, Alexander, St. Petersburg.—Boot legs and vamps. 652

10 Tembler, K., & Schwede, L., Warsaw.—Manufactured leather. 652

11 Tehernish, E., Shartash Village, Government of Perm, district of Ekaterinburg.—Manufactured leather. 652

12 Sorakin, Tihlon, Moscow.—Colt leather. 652

13 Sevebreunikoff, Simon, Mourashkinagon, Nijnii Novgorod, district of Makarieff.—Horse leather. 652

14 Savin, Theodore, Ostashkoff, Government of Tver.—Russian leather and blacked boot legs. 652

15 Rene, John, St. Petersburg.—Sole leather, boot legs, and vamps. 652

16 Pervoff, Stephen, Poshekhonze, Government of Faraslow.—Calf leather and boot legs. 652

17 Ostrom Bros., Uleaborg, Finland.—Sole leather. 652

18 Muller, Edward, St. Petersburg.—Boot legs and vamps. 652

19 Long, Frederick, St. Petersburg.—Calf leather, boot legs, and vamps. 652

20 Koorikoff, P., St. Petersburg.—Leather. 652

21 Hufner, Rudolph, St. Petersburg.—Boot and Russian leather. 652

22 Emelianoff, Alexander, St. Petersburg.—Boot legs. 652

23 Efinoff, —— St. Petersburg.—Boot legs and vamps. 652

24 Company of the Wladimir Tannery, St. Petersburg.—Sole leather. 652

25 Broosnitzine, Nicolas, & Sons, St. Petersburg.—Sole and boot leather and boot legs. 652

26 Bensenson, John, St. Petersburg.—Boot legs. 652

For location of objects, indicated by letter and figure, see Notation, p. 105; ground plan, p. 103.

DESCRIPTION OF BUILDINGS AND SPECIAL EXHIBITS.

No. 1. MAIN BUILDING.

See Part I., page 23.

No. 2. MACHINERY HALL.

See Part III., page 9.

No. 3. STOKES & PARRISH MACHINE SHOP, etc.

Size, 112 feet by 60 feet.
STOKES & PARRISH, Philadelphia.

Constitutes a part of Annex No. 2 to Machinery Hall, and is intended to execute repairs and machine work for the exhibitors. It is located south of Machinery Hall.

No. 4. AMERICAN BOILER HOUSE.

Is situated south of Machinery Hall, near the Hydraulic Annex, and furnishes steam for the American Section.

No. 5. CORLISS BOILER HOUSE.

Architects, PETTIT & WILSON, Philadelphia.—Size, 40 feet by 80 feet.
CORLISS STEAM ENGINE COMPANY, Providence, R. I.

Is built of composite stone and wood, and furnishes steam for the Corliss engine in Machinery Hall from twenty vertical tubular boilers, aggregating 1400 horse-power. It is situated south of Machinery Hall.

No. 6. ENGLISH BOILER HOUSE.

Size, 24 feet by 71 feet.

A composite wood and stone building, furnishing steam to English and other foreign exhibitors in Machinery Hall, and situated to the south of it.

No. 7. SHOE AND LEATHER EXHIBITION BUILDING.

See Part III., page 105.

No. 8. CENTENNIAL BOARD OF FINANCE OFFICE.

Architect, H. J. SCHWARZMANN.—Size, 140 feet by 212 feet.

A one-story frame building, situated on the left hand side of the main entrance to the Exhibition grounds, and occupied by the Board of Finance for the transaction of daily business.

No. 9. U. S. CENTENNIAL COMMISSION OFFICE.

Architect, H. J. SCHWARZMANN.—Size, 192 feet by 140 feet.

Located on the right hand side of the main entrance to the Exhibition grounds. It is built of wood, one story high, and is used as a business office by the Centennial Commission.

No. 10. CENTENNIAL NATIONAL BANK.

Architects, H. J. SCHWARZMANN, HUGH KAFKA.—Size, 72 feet by 40 feet.
E. A. ROLLINS, President.

Situated at the northwest corner of the Main Exhibition Building, and east of the Centennial Commission Office. It is one story high, built of wood, and is the medium for transacting the financial affairs of the Exhibition.

No. 11. WEIMER'S MACHINE WORKS, LEBANON, PA.

This outdoor exhibit is located south of Machinery Hall, between the Shoe and Leather Building, and Stokes & Parrish Machine Shop, and consists of bells, car dumps, carts for coal, iron bars, and steel coil tuyere.

No. 12. BARTHOLDI'S FOUNTAIN.

See Part II., page 146.

Architect, BARTHOLDI, of Paris.—Size, basin, 26 feet in diameter; height, 30 feet, statue, 11 feet.

Situated in the Esplanade in front of the main entrance to the grounds.

No. 13. CATHOLIC TOTAL ABSTINENCE FOUNTAIN.

See Part II., page 146.

Architect, HERMAN KIRN, Philadelphia.

Situated at the junction of Fountain Avenue and the Avenue of the Republic, at the northwestern corner of Machinery Hall. In design it is a circular platform, with four arms projecting at right angles, terminating in four smaller circular platforms. From the centre of the large circle rises a marble rockwork sixteen feet high, with a diameter of eighteen feet at base, on which stands a statue of Moses smiting the rock. The water descends from numerous fissures into a basin forty feet in diameter. On each of the circular platforms is a drinking fountain, twelve feet in height and eight feet eight inches in diameter, surrounded with statues nine feet high, representing Father Mathew, Charles Carroll, Archbishop John Carroll, and Commodore John Barry. It has been erected by contributions made by the numerous societies forming the Catholic Total Abstinence Union of America.

No. 14. FULLER, WARREN, & CO.'S STOVE BUILDING.

Size, 60 feet by 45 feet.

FULLER, WARREN, & Co., New York city, Chicago, Ill., Cleveland, O., and Troy, N.Y.

Located at the east end of Machinery Hall, and facing the Fountain of the Catholic Total Abstinence Society. It contains samples of stoves, heaters, and ranges in operation; is built of wood, one story high, surmounted by a cupola.

No. 15. GILLENDER & SONS' GLASSWARE BUILDING.

Architect, JAMES H. WINDRIM.—Size, 60 feet by 90 feet.

GILLENDER & SONS, Philadelphia.

A one-story frame house, situated west of Machinery Hall, on the walk to the Fifty-second Street entrance, where glass in process of manufacture is shown.

No. 16. CAMP OF WEST POINT CADETS.

Located on the eastern slope of George's Hill, at the western end of Fountain Avenue. The tents accommodate 300 cadets, with officers and band.

No. 17. IRON PIPE.

ANDREW O'NEILL, Ansonia, Conn.

This is an outdoor exhibit, situated south of Machinery Hall, and consists of water and gas pipes, showing patent process of jointing.

No. 18. LIBERTY STOVE WORKS.

Architect, C. C. PHILLIPS.—Size, 45 feet by 34 feet.

CHARLES NOBLE & CO., Philadelphia.

A one-story frame building, located west of Machinery Hall, and south of the Catholic Total Abstinence Fountain, on Fountain Avenue; containing different varieties of heaters, stoves, and ranges manufactured by Noble & Co.

No. 19. SAWMILL ANNEX.

Size, 276 feet by 80 feet, and

No. 20. BOILER HOUSE.

Architects, PETTIT & WILSON, Philadelphia.

Size, 48 feet by 30 feet.

UNITED STATES CENTENNIAL COMMISSIONERS.

Exhibit direct-acting steam saw machines and gang saws. Are on Fountain Avenue, west of Machinery Hall, and consist of a one-story frame open building, and a boiler house attached.

No. 21. RAILROAD ENGINE HOUSE.

This building is used for storing and repairing the engines of the Narrow-Gauge Railroad Company, and is located west of Machinery Hall.

No. 22. ST. CECILIAN ORGANS.

T. C. KNAUFF, Philadelphia, Pa.

This exhibit consists of miniature organs, and some clocks made in 1676, 1776, and 1876. The building is frame, one story high, and in design resembles an organ. It is situated south of Mineral Annex, No. 1, near eastern entrance to Main Building.

No. 23. AUTOMATIC RAILROAD.

Size, 20 feet by 150 feet.

CHARLES W. HUNT, New York.

Illustrations of the mode of unloading vessels by means of a railroad worked by a self-acting apparatus. Is situated west of Machinery Hall.

No. 24. MONUMENT—THE AMERICAN SOLDIER.

NEW ENGLAND CO., Hartford, Conn.

This is a colossal monument situated between the Main Building and Art Gallery, on Avenue of the Republic. It is made of Westerly granite, is 21 feet 6 inches high, weighs 30 tons, and is the largest statue of modern times.

No. 25. GUNPOWDER PILE DRIVER.

Size, 35 feet by 12 feet.

GUNPOWDER PILE-DRIVING CO., Philadelphia.

Is built in the open air to exhibit the operation of pile-driving by means of gunpowder. It is situated southwest of Machinery Hall, between it and the barrier.

No. 26. STARR'S IRON WORKS.

JESSE W. STARR & SON, Camden, N. J.

The space allotted to Messrs. Starr & Son is occupied with gas works, pipes, special castings, stop-valves, lamp-posts, and fire hydrants. It is located southwest of Machinery Hall, close to the barrier.

No. 27. WEST END RAILWAY OFFICE.

This is a two-story frame building, situated west of Machinery Hall and north of Railroad engine house, on line of narrow-gauge road, and designed for the transaction of the Company's business.

No. 28. PNEUMATIC TUBES.

A. BRISBANE.

These tubes are placed on a platform, showing the process of transmitting messages and packages by this method. The exhibit is situated west of the gas machine, near fence on Elm Avenue.

No. 29. EXHIBIT OF NEW ENGLAND GRANITE CO., HARTFORD, CONN.

Situated in front of Board of Finance office, and consists of a Corinthian monument, 46 feet high, crowned with the statue of Hope. A canopy, 40 feet high, surmounted by spire and cross, under canopy a figure indicative of Memory. A Gothic monument with four polished columns at corners of die; a model of statue representing soldier of 1776 (life size); an individual memorial crowned with cross; a Gothic column, surmounted by spire and turrets; a Scotch granite polished monument, 16 feet high, with circular dome terminating in a finial; an individual memorial; a small monument, terminating in an urn; and a rustic monument, with ivy-circled column surmounted with cross.

No. 30. PATENT RAILROAD CROSSING.

This exhibit is located on line of narrow-gauge road near Elm Avenue, and west of Machinery Hall. It is designed to keep dirt from accumulating between the rails and planks of crossing.

No. 31. NEVADA QUARTZ MILL.

Size, 60 feet by 43 feet.

STATE OF NEVADA.

Exhibits the process of manipulating ores and precious metals. It is a one-story frame building, situated south of Machinery Hall.

No. 32. STORE HOUSE.

A one-story brick building, 10 feet by 10, used for the storage of oil for the machinery department. It is between the Nevada quartz mill and the barrier.

No. 33. FRICTION DRUM.

I. S. MUNDY, Newark, N. J.

Situated west of gas machine, near Elm Avenue, and consists of an improved portable friction drum.

No. 34. U. S. HOISTING MACHINE.

STOKES & PARRISH.

This exhibit adjoins the machine shop of Stokes & Parrish, south of Machinery Hall, and consists of a derrick with engine and boiler attachment.

No. 35. CHILIAN AMALGAMATING MACHINERY.

COMMISSION FOR CHILI.

Contains working models of amalgamating machinery used in working ores, and has a boiler house with small cylinder boilers. Is situated west of Machinery Hall.

No. 36. CAMPBELL PRINTING PRESS BUILDING.

Architect, ALEXANDER B. BARY.—Size, 88 feet by 144 feet.

CAMPBELL PRINTING PRESS AND MANUFACTURING CO., Brooklyn, N. Y.

The various printing presses manufactured by this company are exhibited in operation; the power is furnished by a thirty (30) horse-power engine and boiler. Specimens of type printing from the date of the invention, and of sunlight printing, are shown, and a complete printing office, of the fashion of 1776, is also in operation.

No. 37. OLD LOCOMOTIVE AND CARS.

EXHIBITED BY PENNSYLVANIA RAILROAD CO.

This exhibit is situated on line of Narrow-Gauge Railroad, west of Machinery Hall, and consists of the engine "John Bull," with tender and two passenger cars, standing upon the rails and stone sleepers of the first piece of track laid for the Camden & Amboy Railroad, in 1831; also, the first iron prow used on ships in crossing the Atlantic Ocean.

No. 38. CAR HOUSE.

Size, 140 feet by 44 feet.

Situated west of Machinery Hall, on line of Narrow-Gauge Railroad; designed for the exhibition of cars.

No. 39. POLICE STATION.

This building is situated southwest of Glass Factory, and is used by the Centennial Guard for quarters, etc.

No. 40. AVERILL CHEMICAL PAINT CO.

Size, 36 feet by 42 feet.

Contains exhibits of the Averill Chemical Paint ready for use, and applied. The building is constructed on the Rogers patent, has no frame work, and is put together with bolts and iron tongues. It is west of the Liberty Stove Works, on Fountain Avenue.

No. 41. OFFICIAL CATALOGUE AND NEWSPAPER ADVERTISING OFFICE.

Size, 20 feet by 30 feet.

CENTENNIAL CATALOGUE COMPANY—S. M. PETTENGILL & CO., New York, Philadelphia, and Boston.

A one-story building, occupied jointly by the Centennial Catalogue Company, and S. M. Pettengill & Co., Newspaper Advertising Agents. Contains bound volumes and files of the principal newspapers of the country, specimen numbers of old newspapers, photographs of editors and publishers, etc. Situated south of the east end of Machinery Hall.

S. M. Pettengill & Co., established 1849, are agents for all the newspapers of the United States and Canada, which are received and filed at their spacious and conveniently located offices, 37 Park Row, New York; 701 Chestnut Street, Philadelphia; 10 State Street, Boston, and upon the Centennial grounds. They have built up a large business by faithful attention to the interests of their customers, for whom they save time, trouble, and expense. Their long experience and large facilities are put at the service of those who consult them respecting the best methods of advertising.

No. 42. STOKES & PARRISH BOILER HOUSE.

Size, 10 feet by 12 feet.

Contains a boiler and engines; situated east of the southern central entrance of the Main Building.

No. 43. EHRET'S WATER-PROOF ROOFING.

M. EHRET, JR., Philadelphia, Pa.

A circular pavilion, showing fire and water-proof roofing. It is located to the east of the central southern entrance of the Main Building.

No. 44. TOMBSTONES.

This exhibit is situated south of the Main Building, near central entrance, and consists of tombstones, inclosed by ornamental iron fence.

No. 45. TERRA-COTTA PIPES.

Exhibited by E. W. Rittenhouse & Bro., Baltimore, Md. Comprises drain pipes of different sizes, elbows, angles, etc. Southwest of Machinery Hall, and adjoining the Gas Machine.

No. 46. MINERAL ANNEX, 1 and 2.

An extension of the Main Building, to the east of its south central entrance. It contains the greater part of the American exhibits in Department I. (Mining and Metallurgy), which are catalogued in Part I., pages 47 to 60.

No. 47. FIRE-PROOF VENTILATED BUILDING.

Architect and Builder, ROBERT IRWEST.—Size, 13 feet by 13 feet.

This is a one-story building composed of hollow bricks, peculiar in construction. Located south of Main Building and Annex No. 2.

No. 48. HEWITT & BRENNAN'S SWINGS.

These swings are known as aerial chairs, and are operated by means of a treadle with foot-pressure, leaving the hand entirely free. They number six, and are situated on Agricultural Avenue, immediately south of the American Restaurant, and south of Main Building, where the exhibit is known as aerial chairs.

No. 49. ORNAMENTAL STONE WORK.

An exhibit of brown stone, representing a double entrance to dwelling, elaborately carved, with rough dressed trimmings. Located south of St. Cecilian Organ and Main Building Annex No. 1.

No. 51. UNITED STATES GOVERNMENT BUILDING.

See Part III., page 72.

No. 51½. BARTHOLDI ELECTRIC LIGHT.

Is situated immediately west of Cook, Son & Jenkins' Pavilion, on border of lake, and consists of arm of statue to be erected in New York harbor.

No. 52. UNITED STATES ARMY POST HOSPITAL.

See Part III., page 73.

No. 52½. HOWE MONUMENT.

This monument was erected by the Howe Machine Co., to the memory of Elias Howe, Jr., the first inventor of sewing machines in this country. It was designed by Mr. Ellis, and cast by Wood Bros., of Philadelphia, and is situated at the western end of the lake, opposite northern central entrance to Machinery Hall.

No. 53. UNITED STATES HOSPITAL TENT.

See Part III., page 73.

No. 53½. JERUSALEM BAZAAR.

Situated on south side of Fountain Avenue, and due north of Turkish Bazaar. Designed for sale of olive wood.

No. 54. UNITED STATES LABORATORY.

See Part III., page 73.

No. 54½. PHILADELPHIA "TIMES" PAVILION.

Architects, WILSON BROS. & Co., Philadelphia.—Size, 28 feet by 17 feet.
A. K. McCLURE, Editor.

The Centennial business office of the "Times," a daily paper, issued morning and evening, and printed on a Hoe perfecting press in Machinery Hall. It is a one-story frame building, located on Belmont Avenue, opposite and east of the lake.

No. 55. PENNSYLVANIA STATE BUILDING.

Architects, H. J. SCHWARZMANN, HUGH KAFKA.—Size, 97 feet by 55 feet.

A two-story frame building, with a tower, of Gothic style. It faces the lake, between Fountain Avenue and the Avenue of the Republic; contains reception-rooms and offices for the use of the State Commissioners and visitors.

No. 55½. HUNGARIAN WINE PAVILION.

Architect, H. J. SCHWARZMANN.

JACOB KOHN, Manager.

This structure is circular in form, situated on State Avenue, north of the Japanese and Mississippi buildings, and devoted to the sale of Hungarian wines exclusively.

No. 56. OHIO STATE BUILDING.

Architects, HEARD & SONS, Cleveland, O.—Size, 45 feet by 44 feet, and Annex, 60 feet by 40 feet.

A two-story stone pavilion, located at the junction of State and Belmont Avenues. It supplies accommodation for the State Commissioners.

1 **Hoffman, A. O., Thompson, Wm.,** and others, Springfield, O.—Springfield limestone, course No. 16. 102

2 **Mc Nally, Wm. G., Cleveland, O.**—Coat of arms of Ohio, carved from Berea stone. 102

3 **Berea Stone Co., Berea, O.**—Berea sandstone, course Nos. 1 and 2. 102

4 **Hurst, J. R., Cleveland, O.**—Independence sandstone, course No. 4. 102

5 **Ford, O. D., Cleveland, O.**—Euclid sandstone, course No. 3. 102

6 **Halderman, L., & Son, Cleveland,** O.—Amherst stone, course No. 5 and window No. 4. 102

7 **Wagner, John, Cleveland, O.**—Independence sandstone, course No. 6. 102

8 **Amherst Stone Co., Cleveland, O.**—Amherst stone, course No. 7. 102

9 **Black River Stone Co., Cleveland,** O.—Stone from Grafton, Ohio, course No. 8 and window No. 10. 102

10 **Paul, John, & Co., Massillon, O.**—White sandstone from Massillon, Ohio, course No. 9. 102

11 **Wilson & Hughes Stone Co., Cleveland,** O.—Amherst stone, course No. 10 and window No. 9, and Independence stone, course No. 19. 102

12 **Clough Stone Co., Amherst, O.**—Amherst stone, course No. 11, and one-half front entrance. 102

13 **Worthington & Sons, Amherst, O.**—Amherst stone, course No. 12, and one-half front entrance. 102

14 **Ohio Stone Co., Cleveland, O.**—Amherst stone, course No. 13. 102

15 **McDermott, J., & Co., Cleveland,** O.—Berea stone, course No. 14 and window No. 8. 102

16 **Coshocton Stone Co., Coshocton,** O.—Sandstone, course No. 15 and window No. 2. 102

17 **Stitt, Price, & Co., Columbus, O.**—Columbus limestone, course No. 16. 102

18 **Finnegan, M., Cincinnati, O.**—Cincinnati stone, window No. 3. 102

19 **Finnegan, J. H., Cincinnati, O.**—Cincinnati stone, course No. 18. 102

20 **Montgomery, R. M., Youngstown,** O.—Sandstone, part of course No. 20. 102

21 **Caldwell & Tod, Youngstown,** O.—Stone from Tod quarry, part of course No. 20. 102

22 **Byers & McIlhainy, Youngstown,** O.—Stone from Youngstown, part of course No. 20. 102

23 **Mauser & Haid, Youngstown, O.**—Stone from Youngstown, part of course No. 20. 102

24 **Hamilton, Homer, Youngstown,** O.—Stone from Youngstown, part of course No. 20. 102

25 **Warthorst & Co., Massillon, O.**—Stone from Massillon, course No. 21. 102

26 **Stocking, Z. S., Mansfield, O.**—Red sandstone from Mansfield, two vestibule windows. 102

27 **Bosler, Marcus, Dayton, O.**—Dayton limestone, part of gable end and three windows. 102

28 Huffman, Wm., Dayton, O.—Dayton limestone, part of front gable and three windows. 102

29 Diamond Glass Co., Ravenna, O.—Double-thick glass, from ground white sandstone, in windows. 214

30 American Inlaid Wood Co., Cleveland, O.—Inlaid wood floor, ladies' parlor. 227

31 Garry Iron Roofing Co., Cleveland, O.—Sections of corrugated iron roof. 227

32 American Sheet & Boiler Plate Co., Cleveland, O.—Section iron roofing tile. 227

33 House & Davidson, Cleveland, O.—Pair front doors. 227

34 Champion Fence Co., Kenton, O.—Wrought and malleable iron fence and gate. 283

35 Buringer Bros., Dayton, O.—Ohio coat of arms of galvanized iron, in gable. 291

36 Heard & Sons, Cleveland, O.—Architectural design of building. 441

No. 56½. CENTENNIAL POLICE STATION.

This building is situated immediately north of State Avenue and Hungarian Wine Pavilion, and is used as quarters, etc, of Centennial Guards.

No. 57. INDIANA STATE BUILDING.

Size, 50 feet by 42 feet.

A two-story frame building, on State Avenue, opposite the United States Government buildings, containing accommodations for the State Commissioners and for visitors from Indiana.

The exhibit consists of a chair made of one hundred different kinds of wood from one county. Specimens of block and coking and cannel coal; flag from natural bed of limestone; black walnut; model of Bailey gun, and a painting by Cox, of the Sierra Valley. The walls are occupied with panels, presenting in brief form the growth and industries of representative counties and cities. In the reading-room is a large map showing railroad system, with margin presenting agricultural and manufacturing statistics.

No. 57½. SPONGE FISHERS OF TURKEY.

This building contains an exhibit of sponge and fruit, situated on south side of Fountain Avenue, and north of Vermont State building and Turkish Café.

No. 58. ILLINOIS STATE BUILDING.

Architects, WHEELOCK & THOMAS.—Size, 60 feet by 40 feet.

Situated on State Avenue, north of the United States Government Buildings; the headquarters of the Illinois Commissioners.

No. 58½. BETHLEHEM BAZAAR.

Located on Fountain Avenue, adjoining Jerusalem Bazaar, and intended for sale of olive wood.

No. 59. WISCONSIN STATE BUILDING.

Size, 50 feet by 40 feet.

For the accommodation of the State Commissioners. Located on State Avenue, north of the United States Government Exhibition Buildings.

No. 59½. SCREW FOG-HORN AND BELL.

Situated at northwest corner of Belmont and State Avenues. Exhibit consists of one caloric engine, which pumps air for fog-horn; tank for air; and stationary engine.

No. 60. MICHIGAN STATE BUILDING.

Size, 48 feet by 53 feet.

On State Avenue; built of native woods and stone; interior with raised panel work; marble wainscoting; parquette floors, all highly finished. Contains reception, Commissioners', dressing, parcel, three reserve rooms, and ladies' parlor.

No. 61. NEW HAMPSHIRE STATE BUILDING.

Size, 30 feet by 40 feet; two projections, 9 feet by 15 feet each.

In the style of an Italian villa, two stories in height, and containing ten rooms, the roof protected by an awning and used for an outlook. This exhibit consists of views of White Mountains scenery, and home of General John Stark, the hero of Bennington.

No. 62. CONNECTICUT STATE BUILDING.

Architect, D. R. BROWN, from a design by DONALD G. MITCHELL.—Size, 30 feet by 40 feet.

This cottage is erected in the old Colonial style, somewhat modified, and is designed for the use of the citizens and exhibitors of the State of Connecticut. It is situated on State Avenue, not far distant from the United States Government Exhibition Buildings. Exhibit consists of the Royal Arms, which, before the revolution, hung above the Speaker's chair in the House of Representatives, at Hartford, painted in 1724. Rustic chess stand, ham, nutmegs, frames, etc., made from the wood of the Charter Oak. Ancient furniture, clock, tile, settee, etc., etc.

No. 63. MASSACHUSETTS STATE BUILDING.

Size, 85 feet by 56 feet.

Situated on State Avenue, opposite the New York State Building; is built of wood, two stories high, and contains offices and rooms for Commissioners and visitors.

No. 64. DELAWARE STATE BUILDING.

Size, 54 feet by 34 feet.

Built in the Swiss-Gothic style, from native woods of the State. It is occupied by the State Commissioners, the first floor being used for reception-rooms, while the second floor is devoted to business purposes. Is situated on State Avenue, north of the British Commission, opposite the New York State Commission.

No. 65. MARYLAND STATE BUILDING.

Size, 92 feet by 60 feet.

For the use of the State Commissioners and visitors. Situated on State Avenue, north of the British Government buildings, and is built of wood, two stories high. This exhibit consists of minerals, woods, building stone, specimens of art by pupils of Maryland Institute and School of Art and Design, portraits of Governors, three engines by Baltimore & Ohio Railroad, models of fish-house and hatching-house.

No. 67. JAPANESE DWELLING.

Architect, MATSUO-EHE, Tokio.—Size, 102 feet by 48 feet.

This building, usually called the Japanese Government Building, is intended as a dwelling-house for Japanese workmen. The wood and other articles that enter into its composition, and also the vases and flowers in the surrounding garden, were imported from Japan, and all the work has been done by Japanese artisans. It is situated south of the British buildings.

No. 68. WEST VIRGINIA STATE BUILDING.

Size, 115 feet by 40 feet.

Northwest of the Catholic Total Abstinence Fountain, built of wood, two stories high. Headquarters for State Commissioners and visitors from West Virginia. The exhibit consists of twenty pyramids of coal, mineral waters, ores, agricultural products, oils, tobacco, building stone, veneers, salt, glass, and a memorial shield made of seventy-eight varieties of wood, viz.:

Minerals, Ores, Stone, Mining Products.

1 **Central Virginia Copper Mine, Virginia.**—Copper ores, iron pyrites, and collection of minerals found on line of Chesapeake & Ohio Railroad. 100

2 **Stack, I. I., Virginia.**—Hematite ore. 100

3 **Lancaster Furnace & Mining Co., Taylor county, West Va.**—Carbonate of iron. 100

4 **McCreery, W., Raleigh county, West Va.**—Hematite ore. 100

5 **Harvey, R. T., Putnam county, West Va.**—Iron ore. 100

6 **Dickinson, H., Pendleton county, West Va.**—Hematite ore. 100

7 **Miller, George, Pendleton county, West Va.**—Hematite ores. 100

8 **Boggs, J. C., Pendleton county, West Va.**—Hematite ore. 100

9 **Davis, Madam, Deneza, Pendleton county, West Va.**—Hematite ores. 100

10 **Garloe, A. E., Marion county, West Va.**—Carbonate of iron. 100

11 **Brown, T. L., Kanawha county, West Va.**—Black band iron ore. 100

12 **Hamilton, Jas., Jefferson county, West Va.**—Barytes. 100

13 **Melville, A. W., Jackson county, West Va.**—Iron ore. 100

14 **Bond, E., Harrison county, West Va.**—Iron ore. 100

15 **McMechen, S. A., Hardy county, West Va.**—Iron ores. 100

16 **Alexander, W. A., Greenbrier county, West Va.**—Calc spar. 100

17 **Lewis, F., & Co., Grant county, West Va.**—Calc spar and iron ores. 100

18 **Hill, Wm., Fayette county, West Va.**—Iron ore. 100

19 **Wilson, Lewis, Barbour county, West Va.**—Carbonate of iron. 100

20 **Stout, H. L., Phillippi, West Va.**—Carbonate of iron. 100

21 **Nickell, G. W., Greenbrier county, West Va.**
- *a* Iron ore. 100
- *b* Coal. 100

22 **Hovey, W. M., Kanawha county, West Va.**
- *a* Iron ores. 100
- *b* Coals. 101

23 **McLean, J. L., Putnam county, West Va.**
- *a* Carbonate of iron. 100
- *b* Bituminous coal. 101

24 **Great Western Mining & Manufacturing Co., Ky.**
- *a* Iron ore. 100
- *b* Coal. 101

25 **Boteler, A. R., Jefferson county, West Va.**
- *a* Hematite ore. 100
- *b* Marble. 102

26 **Ruffner, L., & Lewis, J. D., Kanawha county, West Va.**
- *a* Black flint. 100
- *b* Building sandstone. 102

27 **Armstrong, A., Taylor county, West Va.**
- *a* Carbonate of iron. 100
- *b* Building sandstone. 102

28 **Capon Iron Works, Hardy county, West Va.**
- *a* Iron ores. 100
- *b* Limestone. 103

29 **White, C. S., Hampshire county, West Va.**
- *a* Iron ores. 100
- *b* White glass and sand. 104

30 **Bloomery Iron Works, Hampshire county, West Va.**
- *a* Iron ores. 100
- *b* Fire clay. 104

31 **Shimp, Jas., Hardy county, West Va.**
- *a* Iron ores. 100
- *b* Potters' clay. 104

32 **Muenchmeyer, H. & L., Wood county, West Va.**
- *a* Iron ore. 100
- *b* Potters' clay. 104

33 **Cantley, R. K., Greenbrier county, Va.**
- *a* Flint. 100
- *b* Semi-bituminous coal. 102
- *c* Limestone and silicious coral. 103

34 **Kingwood Gas, Coal, & Iron Co., Preston county, West Va.**
- *a* Carbonate of iron. 100
- *b* Coal. 101
- *c* Fire clay. 104

35 **Clay, Cecil, Greenbrier county, West Va.**
- *a* Iron ore. 100
- *b* Building sandstones. 102
- *c* Clay. 104
- *d* Mineral waters. 101

36 **Elk River Iron & Coal Co., Braxton county, West Va.**
- *a* Iron ore. 100
- *b* Limestone. 103
- *c* Sandstone for furnaces. 104

37 **Mendenhall, U., Morgan county, West Va.**
- *a* Hematite ore. 100
- *b* Limestone. 103
- *c* White glass sand. 104

38 **Willey, W. T., Monongahela county, West Va.**
- *a* Iron ores. 100
- *b* Coals. 101
- *c* Building sandstone. 102
- *d* Limestone. 103
- *e* Fire clay. 104

39 **Peterkin, G. G., Greenbrier county, West Va.**
- *a* Iron ores and black oxide of manganese. 100
- *b* Mineral waters. 107

40 **Johnson, J. F., Pendleton county, West Va.**
- *a* Hematite ores. 100
- *b* Mineral water. 107

41 **Dulin, C., Wirt county, West Va.**—Petroleum. 101

42 **Volcano Oil & Coal Co., Wood county, West Va.**—Bituminous coal. 101

43 **Hale & Porter, Wirt county, West Va.**—Petroleum. 101

44 **Aspenwall & Low, Wayne county, West Va.**—Cannel coal. 101

45 **Ferguson, Waye, Wayne county, West Va.**—Bituminous and cannel coal. 101

46 **Barnes, J. H., Taylor county, West Va.**—Bituminous coal. 101

47 **McGreggor, Dr., Ritchie county, West Va.**—Petroleum and Ritchie mineral. 101

48 Beckley, A., Raleigh county, West Va.—Bituminous coal. 101

49 Prince, G. H., Raleigh county, West Va.—Bituminous coal. 101

50 Raymond Coal Co., Putnam county, West Va.—Bituminous coal. 101

51 Austen Coal Co., Preston county, West Va.—Coal and coke. 101

52 Hill, M. L, Ohio county, West Va.—Bituminous coal. 101

53 Virginia Coal Co., Mineral county, West Va.—Semi-bituminous coal. 101

54 Hartford City Coal & Salt Co., Mason county, West Va.—Bituminous coal. 101

55 Gaston Coal Mines, Marion county, West Va.—Gas coal. 101

56 Aspinwall & Low, Lincoln county, West Va.—Coal. 101

57 Falling Rock Coal Co., Kanawha county, West Va.—Cannel coal. 101

58 Lewis, J. D., Kanawha county, West Va.—Coal. 101

59 Enterprise Coal Co., Kanawha county, West Va.—Splint coal. 101

60 Kanawha Semi-Cannel Coal Co., West Va.—Coal. 101

61 Mill Creek Cannel Coal Co., Kanawha county, West Va.—Cannel coal. 101

62 Lewiston Coal Co., Kanawha county, West Va.—Coal. 101

63 Monongahela Gas Coal Co., Harrison county, West Va.—Gas coal. 101

64 Despard Gas Coal Co., Harrison county, West Va.—Gas coal. 101

65 Murphy's Run Coal Mine, Harrison county, West Va.—Gas coal. 101

66 Letterman, W. H., Fayette county, West Va.—Bituminous coal. 101

67 Cole, B., Fayette county, West Va.—Bituminous coal. 101

68 Coal Valley Coal Co., Fayette county, West Va.—Gas coal. 101

69 Gauley, ——, Kanawha Coal Co., Fayette county, West Va.—Coal and coke. 101

70 Longdale Coal & Iron Co., Fayette county, West Va.—Coal and coke. 101

71 Nuttallberg Coal Co., Fayette county, West Va.—Coal and coke. 101

72 Stanton Rock Coal Co., Brooke county, West Va.—Bituminous coal. 101

73 Brown, T. L., Boone county, West Va.—Cannel coal. 101

74 Peytona Cannel Coal Co., Boone county, West Va.—Cannel coal. 101

75 Ball, A., Boone county, West Va.—Cannel coal. 101

76 Corrathers, L., Taylor county, West Va.
a Cannel coal. 101
b Fire clay. 104

77 Radcliff, R. S., Marion county, West Va.
a Bituminous coal. 101
b Limestone. 103

78 Hall, W. W., Pleasants county, West Va.
a Petroleum. 101
b Brine. 107

79 Boggs Run Mining Co., Ohio county, West Va.
a Bituminous coal. 101
b Building sandstone. 102
c Limestones. 103

80 Hudson, J. & D., Hancock county, West Va.
a Bituminous coal. 101
b Building sandstone. 102
c Limestone. 103

81 Browse, R. H., Pleasants county, West Va.—Building sandstone. 102

82 Waddle, J. & M., Ohio county, West Va.—Building sandstone. 102

83 Osborne, J., Monroe county, West Va.—Marble. 102

84 Camden, P. B., Lewis county, West Va.—Building sandstone. 102

85 Rall, R., Jefferson county, West Va.—White marble. 102

86 Strider, S. W., Jefferson county, West Va.—Black marble. 102

87 Strider, J. S., Jefferson county, West Va.—Black and white marble. 102

88 Withrow, Jas., Greenbrier county, West Va.—Marbles. 102

89 Miller, J. H., Fayette county, West Va.—Building sandstone. 102

90 Lanham, Gabriel, Taylor county, West Va.
a Building sandstone. 102
b Limestone. 103

91 Laidley, J. B., Cabell county, West Va.
a Building sandstone. 102
b Brine. 107

92 Lanham, Zadock, Taylor county, West Va.—Limestone. 103

93 Gwinn, M., Summers county, West Va.—Hydraulic limestone. 103

94 Lang, A. J., Ohio county, West Va.—Hydraulic limestone and cement. 103

95 Thompson, O. D., Ohio county, West Va.—Hydraulic limestone. 103

96 Wells, J., Ohio county, West Va.—Limestone. 103

97 Potomac Cement Mills, Jefferson county, West Va.—Hydraulic limestone and cement. 103

98 Mann, M., Greenbrier county, West Va.—Limestone. 103

99 Donnaghe, A. P., Wood county, West Va.—Potters' clay. 104

100 Pickering, N. A., Wirt county, West Va.—Potters' clay. 104

101 Johnson, D. D., Tyler county, West Va.—Fire clay. 104

102 Glade Fire Brick Co., Marion county, West Va.—Fire clay. 104

103 Wolfe, A., Hardy county, West Va.—White glass sand. 104

104 Wells, N., Brooke county, West Va.—Potters' clay. 104

105 Williamson, J. R., Barbour county, West Va.—White sand for glass. 104

106 Seatt, J., Raleigh county, West Va.—Millstone rock. 106

107 Sawtall, G., Ohio county, West Va.—Whetstones. 106

108 Simpson, I. E., Wood county, West Va.—Mineral water. 107

109 Sweet Chalybeate Springs county, West Va.—Mineral water. 107

110 Kanawha Salt Co., Kanawha county, West Va.—Brines and bitterns. 107

111 Alexander, E. S. & M. S., Hardy county, West Va.—White sulphur water. 107

112 Duffy, J. W., Hardy county, West Va.—Sulpho-chalybeate water. 107

113 Parrow, N. D., Hardy county, West Va.—Mineral waters. 107

114 Peyton, G. L., & Co., Greenbrier county, West Va.—Mineral water. 107

115 Humphreys, A. R., Greenbrier county, West Va.—White sulphur water. 107

116 McPherson, Joel, Greenbrier county, West Va.—Mineral water. 107

117 Williams, J. V., Grant county, West Va.—Calcareous marl. 107

Metallurgical Products.

118 Capon Iron Works, Hardy county, West Va.—Slag, bloom, wrought iron and cold blast charcoal iron. 111

119 Bloomery Iron Works, Hampshire county, West Va.—Cold blast charcoal iron. 111

120 Elk River Iron & Coal Co., Braxton county, West Va.—Slag and cold blast charcoal iron. 111

Chemical Manufactures.

121 Kanawha Salt Co., Kanawha county, West Va.—Salt. 200

122 Sharp & Staples, Wood county, West Va.—Lubricating and refined oils. 201

123 Camden Consolidated Oil Co., Wood county, West Va.—Oils. 201

124 Lerner, H., Mason county, West Va.—Bromine. 201

125 Hale, E. W., Wirt county, West Va.—Parmienter oil. 201

126 Smith, P. P., Lewis county, West Va.—Yellow ochre. 202

127 Boteler, A. R., Jefferson county, West Va.—Yellow ochre. 202

128 Scott, H., Hardy county, West Va.—Yellow ochre. 202

129 Fisher, W., Hardy county, West Va.—Yellow ochre. 202

130 Wood, A. M., Hardy county, West Va.—Yellow ochre. 202

131 Peters, W. L., Cabell county, West Va.—Mineral paint. 202

Ceramics—Pottery, Porcelain, Glass.

132 Glade Fire-brick Co., Marion county, West Va.—Fire brick. 207

133 Donnaghe, A. P., Wood county, West Va.—Crockery. 210

Furniture and Objects of General Use in Construction and in Dwellings.

134 Schafer B., Wood county, West Va.—Patent office desks. 217

Fabrics of Vegetable, Animal, or Mineral Materials.

135 Robson, Mary E., Fayette county, West Va.—Basket. 289

Educational Systems, Methods, and Libraries.

136 Gray, W., Marshall county, West Va.—Schoolwork of Bunwood Public School, Marshall county, West Va. 300

137 Young, J., Mason county, West Va.—Schoolwork of Mason county public schools. 300

138 McGreggor, Dr., Ritchie county, West Va.—Schoolwork of Ritchie county public schools. 300

139 Staley, T. J., Tyler county, West Va.—Work from Buckhannon public school. 300

140 Radcliff, R. S., Marion county, West Va.—Schoolwork of Fairmount public schools, Marion county. 300

141 Ruffner, L., & Lewis, J. D., Kanawha county, West Va.—Schoolwork of public schools, Charleston, Kanawha county. 300

Engineering, Architecture, Maps, etc.

142 Johnson, H. H., Hampshire county, West Va.—Embossed maps of the United States and West Virginia, for use of the blind. 335

Sculpture.

143 Crawford, G. B., Brooke county, West Va.—Ornamental bracket of native woods. 405

144 Doddridge Music & Art School, Wheeling, West Va.—Oil paintings. 410

145 Henderson, D. E., Jefferson county, West Va.—Oil painting. 410

Photography.

146 Donnaghe, A. P., Wood county, West Va.—Photograph of Burning Spring school. 430

147 Pickering, N. A., Wirt county, West Va.—Photograph of Elizabeth High School. 430

148 City of Wheeling, West Va.—Photographic views of free schools. 430

149 Lerner, H., Mason county, West Va.—Photograph of Clifton public school. 430

150 Kanawha Salt Co., Kanawha county, West Va.—Photograph of Union public school, Charleston, Kanawha county. 430

151 Turner, G. H., Jefferson county, West Va.—Photograph of Shepperd College, Jefferson county. 430

152 Bloomery Iron Works, Hampshire county, West Va.—Photograph of Deaf, Dumb, and Blind Asylum, Hampshire county. 430

153 Peters, W. L., Cabell county, West Va.—Photograph of Marshall College. 430

154 Wells, N., Brooke county, West Va.—Photograph of public schools. 430

Aerial, Pneumatic, and Water Transportation.

155 Young, J., Mason county, West Va.—Model of steamboat. 595

Arboriculture and Forest Products.

155 Kyle, Henry, Wetzel county, West Va.—Sections of woods. 600

157 Peterson, W. F., Wetzell county, West Va.—Sections of wood. 600

158 Johnson, D. D., Tyler county, West Va.—Timber. 600

159 Armstrong, A., Taylor county, West Va.—Timber. 600

160 McCreery, W., Raleigh county, West Va.—Samples of timber. 600

161 Beckley, A., Raleigh county, West Va.—Cross sections of timber. 600

162 Prince, G. H., Raleigh county, West Va.—Woods. 600

163 Dall & Callaway, Putnam county, West Va.—Stakes and hoop poles. 600

164 Browse, R. H., Pleasants county, West Va.—Specimens of woods. 500

165 Banjoy, N. I., Pendleton county, West Va.—Laurel wreath and vine. 600

166 Hammer, B., Pendleton county, West Va.—Section of locust wood. 600

167 Hammer, Jacob, Pendleton county, West Va.—Sections of wild cherry and yellow pine. 600

168 Johnson, J. F., Pendleton county, West Va.—Sections of various woods. 600

169 Mestrezall, W., Monongahela county, West Va.—Walnut board. 600

170 Fairchild, Lawhead, & Co., Monongahela county, West Va.—Woods used in wagon building. 600

171 Ruffner, L., & Lewis, J. D., Kanawha county, West Va.—Cross sections of twenty-one varieties of timber. 600

172 McKnight & Rohrer, Jefferson county, West Va.—Axe handles and felloes. 600

173 Clay, Cecil, Greenbrier county, West Va.—Specimens of woods. 600

174 Letterman, W. H., Fayette county, West Va.—Samples of woods. 600

175 Heald, D., Fayette county, West Va.—Molasses hogshead shook. 600

176 Guard, Jas., Fayette county, West Va.—White oak stave. 600

177 Abbott, J. M., Fayette county, West Va.—Holly. 600

178 Cassady, R. B., Fayette county, West Va.—Maple. 600

179 Miller, J. H., Fayette county, West Va.—Woods. 600

180 Sinsel, J. B., Fayette county, West Va.—Samples of ash. 600

181 Elk River Iron & Coal Co., Braxton county, West Va.—Charcoal. 600

182 Brown, S. H., Fayette county, West Va.—Veneers. 601

183 Peters, W. L., Cabell county, West Va.—Poplar boards, polished. 601

Agricultural Products.

184 Leigh, Wm., Berkeley county, West Va.—Corn. 620

185 Downer, J. E., Cabell county, West Va.—Corn on stalk. 620

186 Settle, J. G., Fayette county, West Va.
a Wheat, buckwheat, and corn. 620
b Tobacco. 623

187 Marrs, John, Fayette county, West Va.—Oats. 620

188 Robson, H A., Fayette county, West Va.—Corn. 620

189 Blake, L., Fayette county, West Va.—Corn. 620

190 Dickinson, M., Fayette county, West Va —Corn. 620

191 Rice, J. P., Harrison county, West Va.—Wheat. 620

192 Bartlett, P. W., Harrison county, West Va.—Wheat. 620

193 Rider, B. D., Harrison county, West Va.—Corn, wheat, oats and buckwheat. 620

194 Bartlett & Riley, Harrison county, West Va.—Wheat. 620

195 Green, R. H., Harrison county, West Va.—Wheat. 620

196 Waters, G., Harrison county, West Va.—Corn. 620

197 Hickman, J., Harrison county, West Va.—Corn. 620

198 Bassett, D., Harrison county, West Va.—Wheat and corn. 620

199 Morrison, D., Harrison county, West Va.—Corn. 620

200 Sayre, J., Jackson county, West Va.—Corn. 620

201 Hopkins, A. D., Jackson county, West Va.—Wheat. 620

202 Fisher, J. W., Gilmer county, West Va.—Corn. 620

203 Wilson, H., Hardy county, West Va.—Oats. 620

204 Bean, Peter, Hardy county, West Va.—Buckwheat. 620

205 McNeal, R., Hardy county, West Va.—Corn. 620

206 Maslin, Thos., Hardy county, West Va.—Corn. 620

207 Williams, G. P., Hardy county, West Va.—Wheat. 620

208 Bean, J., Hardy county, West Va.—Oats and wheat. 620

209 Handley, H., Greenbrier county, West Va.—Oats, corn, timothy, orchard grass, and orchard grass seed. 620

210 Alexander, W. A., Greenbrier county, West Va.—Wheat. 620

211 Koontz, G., Jefferson county, West Va.—Corn. 620

212 Turner, G. H., Jefferson county, West Va.—Wheat. 620

213 Flemming, R. E., Marion county, West Va.—Corn and wheat. 620

214 Gray, W., Marshall county, West Va.—Corn on stalk. 620

215 Waddle, J. & M., Ohio county, West Va.—Corn. 620

216 Wilson, G. W., Ohio county, West Va.—Corn. 620

217 Dyer, J. P., Pendleton county, West Va.—Corn. 620

218 Cunningham, S., Pendleton county, West Va.—Corn. 620

219 Millar, Wm. C., Pendleton county, West Va.—Wheat. 620

220 Harris, T. M., Ritchie county, West Va.—Corn. 620

221 Browse, R. H., Pleasants county, West Va.—Corn and wheat. 620

222 Williams, J. S., Taylor county, West Va.—Corn and wheat. 620

223 Riley, John, Taylor county, West Va.—Wheat. 620

224 Sheppard, L., Wirt county, West Va.—Corn. 220

225 Settle, W., Fayette county, West Va.
a Corn. 620
b Tobacco. 623

226 Dempsey, J. E., Fayette county, West Va.
a Wheat, corn, oats, and timothy. 620
b Tobacco. 623

227 Harvey, William T., Fayette county, West Va.
a Rye, wheat, and corn. 620
b Tobacco. 623

228 Hashbarger, A. P., Fayette county, West Va.
a Oats. 620
b Tobacco. 623

229 Sinclair, G. W., Taylor county, West Va.—Beans. 621

230 Keesey, I. B., Fayette county, West Va.—Laurel root. 622

231 O'Neal, Cheuvront, & Co., Doddridge county, West Va.—Tobacco. 623

232 Crager, Joe, Fayette county, West Va.—Tobacco. 623

233 Cassady, R. B., Fayette county, West Va.—Tobacco. 623

234 Nugen, J., Fayette county, West Va.—Tobacco. 623

235 Braughan, J. J., Fayette county, West Va.—Tobacco. 623

236 Carter, W., Fayette county, West Va.—Tobacco. 623

237 Dempsey, J. A., Fayette county, West Va.—Tobacco. 623

238 Ballard, G. W., Lewis county, West Va.—Tobacco. 623

239 Johnson, D. D., Taylor county, West Va.—Tobacco. 623

240 Staley, T. J., Tyler county, West Va.—Tobacco. 623

241 Seamon, H., Wheeling, West Va.—Tobacco and cigars. 623

Animal and Vegetable Products.

242 Oschbacher, John, & Son, Wood county, West Va.—Grape wine. 660

243 Muenchmeyer, H. & L., Wood county, West Va.—Grape wine. 660

Textile Substances of Vegetable or Animal Origin.

244 Browse, R. H., Pleasants county, West Va.—Flax. 666

245 Settle, J. G., Fayette county, West Va.—Flax. 666

No. 69. CANADIAN LOG HOUSE.

Size, 75 feet by 56 feet.

CANADIAN COMMISSION.

See Part IV., page 134.

Is one story high, constructed of logs, and located close by the British Government buildings. It constitutes an exhibit of the timbers of Canada.

No. 70. MISSOURI STATE BUILDING.

Architect, L. C. MILLER, St. Louis.—Size, 58 feet by 48 feet, with tower.

Location, State Avenue, George's Hill. Headquarters of Board of State Centennial Managers, organized by State Legislature; President, Thomas Allen; Secretary. J. L. Tracy. Exhibits in Main Hall, Education Department, Mineral Annex, Agricultural Hall.

Nos. 71, 72, 73. BRITISH GOVERNMENT BUILDINGS.

Architect, THOMAS HARRIS, of London.—Size, No. 1, 5000 sup. feet; No. 2, 1200 sup. feet.

These edifices have been erected for the use of the members of the Royal Commission. The large one is the residence of the Commissioners and delegates, while the smaller furnishes accommodations for the members of the staff. They are built in a picturesque, half-timbered style, essentially English, and are located north of Machinery Hall. A bake-house and laundry are also attached to the above.

No. 74. NEW YORK STATE BUILDING.

Architects, CROFF & CAMP.—Size, 60 feet by 34 feet.

The Commissioners of the State of New York have offices in this building. It is a two-story structure, surrounded by about half an acre of ground. It is situated on State Avenue, north of the British buildings.

No. 75. COLONEL LIENARD'S GEORAMA.

Designer, COL. LIENARD, Paris.—Size, area 1250 square feet.

An open-air exhibit, models of the cities of Paris and Jerusalem, in gypsum. The contour of the ground is shown, and the streets appear fully delineated. It is in the centre of Fountain Avenue, at the head of the lake.

No. 76. POP-CORN BUILDINGS.

Architects, H. J. SCHWARZMANN, HUGH KAFKA.—Size, 41 feet by 32 feet each.
J. A. BAKER, Dayton, Ohio.

One of these buildings is situated on Fountain Avenue opposite the northern extremity of the lake; the other is on Agricultural Avenue, east of and opposite the New England Farmers' Home and Modern Kitchen. They are devoted exclusively to the sale of pop-corn, and are built of wood, one story high.

No. 77. CIGAR STANDS.

The stands are located at various points north of the Avenue of the Republic, and west of Belmont Avenue.

No. 78. SODA WATER STANDS.

These stands are situated at various points north of the Avenue of the Republic, and west of Belmont Avenue.

No. 79. TUNISIAN CAFÉ AND BAZAAR.

A decorated pavilion with stained glass windows, designed for the display of Tunisian products. Situated on Fountain Avenue, north of Pennsylvania State building.

No. 80. CHRISTOPHER COLUMBUS MONUMENT.

Located at corner of Belmont and Fountain Avenues. It was erected by the Columbus Monument Association. It is of colossal size, and represents the Genoese navigator in a standing posture, with the right hand resting on a globe, and the left holding a chart; an anchor and rope indicating his occupation.

No. 81. DRINKING FOUNTAIN.

Size, 25 feet in diameter.
Erected by the SONS OF TEMPERANCE of Pennsylvania.

This fountain is built of wood, the structure inclosing it being circular in form, and it is situated at the junction of Fountain and Belmont Avenues. The Singer & Talcott drinking fountain is a marble fountain situated between the Bethlehem Bazaar and Tunisian Café.

No. 82. "TROIS FRÉRES PROVENÇAUX" RESTAURANT.

Architect, LEHMAN, of Paris.—Size, 177 feet by 110 feet.
LOUIS GOYARD, Proprietor.

A two-story frame structure, situated on the corner of Belmont and Fountain Avenues. It has large garden surroundings, and is a duplicate of the restaurant of the same name in Paris as regards its management.

No. 83. NEW YORK "TRIBUNE" BUILDING.

Architect, E. E. RATH.—Size, 30 feet by 21 feet.
NEW YORK TRIBUNE, New York.

A small octagonal wooden building, with verandas and a high tower-like roof. It is located close to the French Restaurant and the lake, and is used as an office for the correspondents and reporters of "The Tribune."

No. 84. WORLD'S TICKET OFFICE.

Architect, H. J. SCHWARZMANN.—Size, 60 feet square.
COOK, SON & JENKINS, London, New York, and Philadelphia.

Situated immediately north of the eastern end of Machinery Hall. It is hexagonal in form, and contains a main hall and four private offices. Tickets to all parts of the world are offered for sale, and ornamental articles manufactured in Palestine are exhibited.

No. 85. PRESSED FUEL COMPANY'S BUILDING.

Polygon, 24 feet in diameter.

E. F. LOISEAU, Philadelphia.

Constructed of iron and situated in a garden plot on the Avenue of the Republic, west of the lake and opposite to Machinery Hall. It exhibits the fuel in a state of combustion, to demonstrate its economy and adaptability.

No. 86. SPANISH GOVERNMENT BUILDING.

Decagonal, 50 feet in diameter.

A one-story frame building, situated on the Avenue of the Republic, west of the Catholic Total Abstinence Fountain. Intended as headquarters of the Spanish soldiers.

86½. SPANISH EXHIBITION BUILDING.

Architect, ALEXANDER B. BARY.—Size, 80 feet by 100 feet.

Constructed of wood, in a style similar to Machinery Hall; adjacent to Spanish Engineers' Pavilion.

Educational Systems, Methods, and Libraries.

1 **Goig & Co., Jaime, Alcira, Province of Valencia.**—Books for primary instruction. 300

2 **Rodriguez Mañanes, Pedro, Zamora.**—Explanation of engravings and patterns for cutting garments. 300

3 **Fábregas y Bru, José, Havana, Island of Cuba.**—Writing desk. 300

4 **Superior Normal School, Salamanca.**—Programme for children's schools. 300

5 **Illera y Marúz, Manuel, Salamanca.**—Rational programme for lectures in normal school. 300

6 **Rodriguez Martin, Vicente, Sequeros, Province of Salamanca.**—Lineal designs. 300

7 **Sanchez, Pilar, Sevilla.**—Objects for the instruction of children. 300

8 **Board of Primary Instruction, Vitoria, Province of Alava.**—Treatise on primary instruction. 300

9 **Azpiazu, José Antonio de, Vitoria, Province of Alava.**—Method of penmanship. 300

10 **Solano y Viton, Pablo, Valencia.**—Books for primary instruction. 300

11 **Aguilar, Simon, Valencia.**—Books for primary instruction. 300

12 **Solis, Prudencio, Valencia.**—Books for primary instruction. 300

13 **Perales, Baltasar, Valencia.**—Books for primary instruction. 300

14 **Montells y Nadal, Jacinto, Sevilla.**—Books for primary instruction. 300

15 **Gazapo y Loma, Juan Manuel, Madrid.**—Syllable book. 300

16 **Collado, Cayetano, Madrid.**—Intuitive instruction. 300

17 **Borja y Alarcon, Pedro, Madrid.**—Geographical stick. 300

18 **Ladies' Seminary, Madrid.**—Work by pupils, and writing by the professors. 300

19 **Molinero, Enrique, Madrid.**—Alphabets. 300

20 **Gonzalez y Luna, Ildefonso, Jaen.**—Specimen of penmanship. 300

21 **Diaz y Martinez, Manuel, Jerez de la Frontera, Province of Cádiz.**—Apparatus for primary instruction. 300

22 **College of Messrs. Peffort, Barcelona.**—Work done by pupils. 300

23 **National Institute for the Deaf and Dumb, and Blind, Madrid.**—Method of instruction. 303

24 **Nebreda y Lopez, Cárlos, Madrid.**—Works for the instruction of the deaf and dumb, and blind. 302

25 **Institute for the Deaf and Dumb, and Blind, Sevilla.**—Documents of the college. 302

26 **Campillo y Correa, Narciso, Madrid.**—Rhetoric and poetry. 306

27 **Cornellas y Grau, Clemente, Madrid.**—French grammar, etc. 306

28 **Escolapios of San Antonio, Madrid.**—Books. 306

29 **Garcia Ayuso, Francisco, Madrid.**—Arabian grammar, study of philology, etc. 306

30 **Garriga Marrill, Pedro, Madrid.**—Tachigraphy. 306

31 **Giol y Soldevilla, Isidro, Madrid.**—Course of photography 306

32 **Galdo, Manuel Maria José de, Madrid.**—Manual of natural history. 306

33 **Institute of Secondary Instruction of San Isidro, Madrid.**—Memoirs. 306

34 **Martinez Cubells, Enrique, Madrid.**—Lessons in geometry. 306

35 **Montero Montero, Antonio, Madrid.**—Programmes, catalogues, etc., of the polytechnic school. 306

36 **Monreal y Ascaso, Bernardo, Madrid.**—Course of geography, and history of Spain. 306

37 **Moya, Ambrosio, Madrid.**—Lessons in arithmetic. 306

38 **National Library, Madrid.**—Books published, and awarded works. 306

39 **Institute of Secondary Instruction of the Noviciate, Madrid.**—Complete collection of memoirs. 306

40 **Pereda y Martinez, Sandalio de, Madrid.**—Programme of natural history. 306

41 **Puerta, Gabriel de la, Madrid.**—Treatise on chemistry, medicine, etc. 306

42 Ramos Lafuente, Madrid.—Text-book for instruction in natural and physico-chemical sciences. 306

43 Salvador y Aznar, Felipe, Madrid.—Manual of book-keeping, etc. 306

44 Suaña y Castellet, Emeterio, Madrid.—Course of Latin. 306

45 Sanchez Casado, Félix, Madrid.—Bachelor's guide. 306

46 Fernandez Cardin, Joaquin María, Madrid.—Elements of mathematics. 306

47 Vallin y Bustillo, Aciscio F., Madrid.—Text-books of secondary instruction. 306

48 Vicuña, Gumersindo, Madrid.—Facultative works. 306

49 Institute of Secondary Instruction, Pamplona, Province of Navarra.—Memoirs, catalogues, plans, etc. 306

50 Literary University, Oviedo.—Books. 306

51 Institute of Secondary Instruction, Palencia.—Memoirs and treatises. 306

52 Literary University, Salamanca.—Memoirs, catalogues, discourses, etc. 306

53 Institute, Santander.—Books, speeches, catalogues, and photographs. 306

54 Menendez & Pintado, Marcelino, Santander.—Geometrical album. 306

55 Institute, Segovia.—Text-books. 306

56 Literary University, Sevilla.—Opening speeches. 306

57 Loscos, Francisco, Castelseras, Province of Teruel.—Herbarium for the study of botany. 306

58 Respaldiza, Domingo, Valladolid.—Books. 306

59 Garcia Arboleya, José, Havana, Island of Cuba.—Logarithm tables. 306

60 Cerero, Rafael, Havana, Island of Cuba.—Treatise on the science of engineering. 306

61 Nautical School, Barcelona.—Text-books of the Director. 306

62 Fine Art School, Barcelona.—Programmes of instruction. 306

63 School of Industrial Engineers, Barcelona.—Tables and projects. 306

64 Cornet y Mas, Cayetano, Barcelona.—Compendium of Spanish tachigraphy. 306

65 Briz, Francisco Pelayo, Barcelona.—Collection of popular songs. 306

66 Miralles & Peris, Manuel, Barcelona.—Plan of studies in a mercantile college. 306

67 Veterinary School, Leon.—Memoirs dedicated to the Exhibition at Philadelphia. 306

68 Faculty of Medicine, Madrid.—Works. 306

69 Mata y Fontanet, Pedro, Madrid.—Medical works and treatises. 306

70 Cabello y Aso, Luis, Madrid.—Architectural essays and works. 306

71 Grande, José Maria, Madrid.—Works on singing. 306

72 Master of San Juan, Aureliano, Madrid.—Treatise on general anatomy. 306

73 Busto y Lopez, Andrés, Madrid.—Chirurgical pathology. 306

74 Quijano, Lopez, Cárlos, Madrid.—Treatise on chirurgical operations. 306

75 Cortejarena & Aldebó, Francisco de, Madrid.—Manual of obstetrics. 306

76 Sanchez y Merino, Ramon, Madrid,—General treatise on fevers. 306

77 Santero y Moreno, Tomás, Madrid.—Medical clinic. 306

78 Fernandez de Figares, Manuel, Granada.—Manual of experimental physics. 306

79 Local Institute of Secondary Instruction, Baeza, Province of Jaen.—Photographs of its interior and exterior. 306

80 Mingote, Policarpo, Leon.—Course of geography. 306

81 Ruiz de la Peña, Francisco, Leon.—Latin translation, grammatical system, etc. 306

82 Prieto, Anastasio, Logroño.—Regulation for the Normal School. 306

83 Saenz Navarrete, José, Logrono.—Documents referring to the foundation and progress of his college. 306

84 Royal Academy, Madrid.—Collection of its works. 306

85 Carreras, Mariano, Madrid.—Political economy. 306

86 Fernandez de Castro, Manuel, Madrid.—Treatise on electricity, metallurgy, etc. 306

87 Cortázar, Daniel, Madrid.—Treatise on mathematics. 306

88 Comeleran, Francisco A., Madrid;—Treatise on the Latin language. 306

89 Chamorro, Rafael, Madrid.—System of explaining heat, light, electricity, etc. 306

90 Page, Eugenio Roman, Badajoz.—Register of property. 306

91 Graells, Francisco, Barcelona.—Geometric books. 306

92 Magza y Jaime, Juan, Barcelona.—Elementary treatise on physiology. 306

93 Superior Normal School of Masters, Barcelona.—Books. 306

94 Fernandez Fontecha, Francisco, Cádiz.—Course of astronomy and navigation. 306

95 Foly y Velasco, Federico, Cádiz.—Text-books. 306

96 Oferrall, Javier, Cádiz.—French selections. 306

97 Moreno y Espinosa, Alfonso, Cádiz,—Compendium of universal history. 306

98 Rubio y Diaz, Vicente, Cádiz.—Elements of mathematics. 306

99 Literary University, Santiago, Province of La Coruña.—Books. 306

100 Pimentel y Donaire, Miguel, Madrid.—Legislative collection on primary instruction. 306

101 Vilella y Font, Sebastian, Madrid.—Fables of Fedro. 306

102 Saco y Arce, Juan A., Orense.—Grammar. 306

103 Lasala Martinez, Atanasio, Orense.—Elements of arithmetic and algebra. 306

104 Gaité Nuñez, Joaquin, Orense.—Elements of arithmetic and geography. 306

105 Luciro Gonzalez, Juan, Orense.—Works on philosophy. 306

106 Antiguedad, Celestino, Palencia.—Books on primary instruction. 306

107 Normal School, Palencia.—Books on primary instruction. 306

108 Flores Arrate, Leon, Palencia.—Writing books. 306

109 School of Music & Recitation, Madrid.—Memoirs. 306

110 Direction of Customs, Madrid.—Statistics. 306

111 Romero y Andia, Antonio, Madrid.—Musical instruction. 306

112 Lopez Almagro, Antonio, Madrid.—Method of playing the harmonium. 306

113 Gil y Justo Monè, Juan, Madrid.—Method of melodies. 306

114 Marzo y Feo, Enrique, Madrid.—Method of playing the hoboe. 306

115 Mata, Manuel de la, Madrid.—Method of playing the piano. 306

116 Nuñez Robres, Làzaro, Madrid.—The music of the people. 306

117 Ayllon, Rafael, Madrid.—Musical works. 306

118 Borrell, Mariano, Madrid.—Arts and industry. 306

119 Rebolledo, Josè A., Madrid.—Treatise on construction of houses, etc. 306

120 Novoa y Lopez, Angel, Pontevedra.—The pontifical infallibility. 306

121 Barrios, Càndido, Madrid.—Works on artillery. 306

122 School of Engineers of Highways, Canals, & Ports, Madrid.—Works. 306

123 School of Mountain Engineers, San Lorenza del Escorial, Province of Madrid.—Memoirs of the school. 306

124 Corps of Engineers, Madrid.—Books, memoirs, and projects. 306

125 School of Mining Engineers, Madrid.—Books. 306

126 Veterinary School, Madrid.—Books and pictures. 306

127 High School of Architecture, Madrid.—Books, catalogues, and designs. 306

128 Conservatory of Arts, School of Commerce, etc., Madrid.—Memoirs, books, designs, studies, etc. 306

129 Gonzalez Hidalgo, Joaquin, Madrid.—Scientific works on natural history. 306

130 Llorente y Làzaro, Ramon, Madrid.—Compendium of the bibliography of Spanish veterinary system. 306

131 Ramirez, Concepçion, Madrid.—Treatise on the penal code. 306

132 Magaz, Juan, Madrid.—Elementary treatise on human physiology. 306

133 Seco Baldor, Josè, Madrid.—Study of the cholera of past centuries. 306

134 Calleja Sanchez, Julian, Madrid.—Scientific anatomy. 306

135 Bailly Baillière, Càrlos, Madrid.—Catalogues of the museums and laboratories of the medical faculty. 306

136 Gastaldo, Josè, Madrid.—Cataract and its treatment. 306

137 Jareño de Alarcon, Francisco, Madrid.—Models and plans of the principal schools. 306

138 Calvo y Pereyra, Mariano, Madrid.—Architectural works. 306

139 Elizalde, Josè Antonio, Madrid.—Course of descriptive geometry. 306

140 Vallin y Bustillo, Acisclo, F., Madrid.—Theory of unknown quantities. 306

141 Rodriguez, Eduardo, Madrid.—Manual of general physics. 306

142 Maldonado Macanaz, Joaquin, Madrid.—General principles of the art of colonization. 306

143 Gonzalez Marti, Manuel, Madrid.—Manual of the infantry service. 306

144 Arsenal, Madrid.—Military works. 306

145 Mechanics'Athenæum, Tarragona.—Rules. 306

146 Society "Centra de Lecturo," Reus, Province of Tarragona.—Memoirs and rules. 306

147 Gonzalez Hidalgo, Joaquin, Madrid.—Works on the mollusks of Spain, Portugal, and the Pacific. 306

148 García Maceira, Antonio, Zamora.—Treatise on the sugar cane. 306

149 Literary University, Granada.—Anatomical treatise. 306

150 Board of Agriculture, Industry, & Commerce, Oviedo.—Memoirs of the Asturian exhibition, 1863. 305

151 Gonzalez Domingo, Cecilio, Salamanca.—Invitations for the Exhibition at Philadelphia. 306

152 Cuevas, Josè Alfonso, Jàtiva, Province of Valencia.—Synoptic table of the history of Spain. 306

153 Normal School, Toledo.—Works on teaching. 306

154 Normal School, Valencia.—Works on teaching. 306

155 Casan Alegre, Joaquin, Valencia.—Universal history. 306

156 Ollero, Andrès F., Valencia.—Descriptive geography and domestic economy. 306

157 Hernandez, Agapito, Madrid.—Books on primary education. 306

158 Fraile y Valles, Gumersindo, Sevilla.—Arithmetics. 306

159 Bastida, Puyals de la, Vicente, Madrid.—Books on primary instruction. 306

160 Villegas, Enrique, Córdoba.—Books for primary instruction. 306

161 Ollero, Andrès F., Cuenca.—Treatise on education. 306

162 Normal School, Guadalajara.—School memoirs. 306

163 Diego, Pedro de, Madrid.—History of Spain. 306

164 Besson, Eduardo Augusto, Bùrgos.—Books for elementary instruction. 306

165 Normal School, Càdiz.—Textbooks. 306

166 Aguilar Mayor, Mariano, Lèrida.—Books for primary instruction. 306

167 García, Nicanor, Villalba, Province of Lugo.—Books for primary instruction. 306

168 Central Normal School, Madrid.—Books for primary instruction. 306

169 Vallin y Bustillo, Acisclo, Madrid.—Books for primary instruction. 306

170 Carderera, Mariano, Madrid.—Books on primary instruction. 306

171 Cuenca, Hermenegildo, Càdiz.—Reading books for schools. 306

172 Normal School, Avila.—Books. 306
173 Normal High School, Barcelona.—Books. 306
174 Tranque y Cassi, Lorenzo, Barcelona.—Book on instruction. 306
175 Araño y Majó, Miguel, Barcelona.—Books on primary instruction. 306
176 Rodriguez, Eduardo, Lopez, Barcelona.—Method to reform writing. 306
177 Tubert y Carrera, Juan, San Martin de Provençals, Province of Barcelona.—Synopsis. 306
178 Economical Society of Friends of the Country, Sevilla.—Catalogue and memoirs. 306
179 Society for the Protection of Animals and Plants, Cádiz.—Publications. 306
180 Royal Academy of History, Madrid.—Books. 306
181 Royal Academy of Fine Arts, Madrid.—Books. 306
182 Academy of Physical & Moral Sciences, Madrid.—Publications. 306
183 Academy of Medicine, Madrid.—Spanish Pharmacopœia. 306
184 Special School for Painting, Sculpture, and Engraving, Madrid.—Memoirs, programmes, and statistics. 306
185 Astronomical & Meteorological Observatory, Madrid.—Annual and meteorological observations. 306
186 Spanish Society of Natural History, Madrid.—Annals. 306
187 Mineral Society, Salamanca.—Memoir. 306
188 Mercantile Athenæum, Madrid.—Books, rules, and periodicals. 306
189 Spanish Society of Professors of Sciences, Madrid.—Rules and reviews. 306
190 Economical Society, Madrid.—Copies of the pamphlet "El Centenario" and of the Review. 306
191 Association for the Protection of Young Artisans, Madrid.—Memoirs. 306
192 Academy of Sciences, Havana, Island of Cuba.—Documents and works. 306
193 Royal Academy of Sciences & Arts, Barcelona.—Books and dissertations. 306
194 Athenæum of Barcelona.—Reports. 306
195 Society of Industrial Engineers, Barcelona.—Publications. 306
196 Royo, Mariano, Zaragoza.—Treatise on irrigation. 306
197 Castelvi, Bartolomé, Zaragoza.—Books. 306
198 Chao, Alejandro, Havana, Island of Cuba.—Life of Lord Byron. 306
199 Royal Academy of Sciences & Arts, Barcelona.—Rules and memoirs. 306
200 Catalanian Agricultural Institute of San Isidro, Barcelona.—Rules and reviews. 306
201 Economical Society of Friends of the Country, Barcelona.—Papers. 306
202 Society of Barcelona of Friends of Instruction, Barcelona.—Rules, memoirs, and documents. 306
203 Academy of Tachigraphy.—Documents. 306
204 Society of Patrons of National Production.—Documents. 306
205 Geographical & Statistical Institute.—Publications. 306
206 Reynal, Lorenzo, Tarragona.—Synopsis of the English language. 306
207 Cuchí, Tomás, Tarragona.—Special treatises. 306
208 Ford y Cusido, widow of, Tarragona.—Commercial Review. 306
209 Gil Sumbiela, Luis, Valencia.—Treatise on stenography. 306
210 Perez M. Miguel, Mariano, Medina del Campo, Province of Valladolid.—Almanacs. 306
211 Borao, Gerónimo, Zaragoza.—Dictionary. 306
212 Cuesta, Pedro, Zaragoza.—Works on medicine and pharmacy. 306
213 Sainz, Juan Antonio, Zaragoza.—Works on medicine and pharmacy. 306
214 Mondria, Mariano, Zaragoza.—Works on medicine and pharmacy. 306
215 Martinez Anguiano, Pedro, Zaragoza.—Works on medicine and pharmacy. 306
216 Robert y Serrat, José, Zaragoza.—Elements of general anatomy. 306
217 Torres y Garcia, Roman, Zaragoza.—Books for primary and superior instruction. 306
218 Villar Garcia, Martin, Zaragoza.—History of Latin literature. 306
219 Puente Villancio, José, Zaragoza.—Manual of the history of the middle ages. 306
220 Juncal, Benito, Pontevedra.—Treatise on education. 306
221 Gonzalez-Regueral, Severiano, Pontevedra.—"La Reforma," periodical. 306
222 Somoza Piñeiro, Ramon, Menza, Province of Pontevedra.—Treatise on syphons applied for the irrigation of pastures. 306
223 Angel Crehuet, widow of, Salamanca.—Prolegomena of law. 306
224 Navarro Izquierdo, Luciano, Salamanca.—Treatise on geometry. 306
225 Oscariz y Lasaga, Victor, Santander.—Pamphlets of literary studies. 306
226 Royal Academy of Seville.—Speeches, catalogues, and poetry. 306
227 Society of Andalusian Bibliophilists.—Books. 306
228 Gironés & Orduña, Seville.—Poetry. 306
229 Valdaraque, Rafael, Seville.—Poetry. 306
230 Asensio y Toledo, José Maria, Seville.—Literary works. 306
231 Sanchez, Pilar, Seville.—"Ernestina," geographical novel. 306
232 Meseguer, Manuel, Amposta, Province of Tarragona.—Text-books. 306
233 Alvarez, Romualdo, Tortosa, Province of Tarragona.—Works on instruction. 306
234 Avela, Eduardo, Madrid.—Farmers' almanacs. 306
235 Florez, José Maria, Madrid.—Books and maps. 306
236 Yeves, Carlos, Madrid.—Books and periodicals. 306

237 Maffei, Eugenio, Madrid.—Mineral bibliography. 306

238 Fuente, Vicente de la, Madrid.—Life of Santa Teresa de Jesús. 306

239 Santamaria de Paredes, Vicente, Madrid.—The defense of right of property. 306

240 Garcia Ayuso, Francisco, Madrid.—Historical and dramatical works. 306

241 Gaya y Marzal, Cárlos Maria, Madrid.—Treatise on tachigraphy. 306

242 Ruiz de Salazar, Emilio, Madrid.—"El Magisterio Español," periodical, and "La Familia," review. 306

243 Massat, Alfredo, Cartagena, Province of Múrcia.—Description of metaliferous soil. 306

244 Pereiro Rey, Manuel, Orense.—Application of sulphur. 306

245 Perez, Joaquin, Orense.—Descriptive pamphlet of the steeple of the cathedral. 306

246 Alvarez Gimenez, Emilio, Pontevedra.—Studies on dramas and comedies. 306

247 Pimentel, Antonio, Pontevedra.—Pamphlets. 306

248 His Majesty the King of Spain, Madrid.—Catalogues. 306

249 Cárlos, A. de, & Son, Madrid.—Literary works and "La Illustracion," periodical. 306

250 Direction General of Cavalry, Madrid.—Work on breeding horses. 306

251 Direction of Public Instruction, Madrid.—Books. 306

252 Direction of Hydrography, Madrid.—Books. 306

253 Medina & Navarro, Madrid.—Periodicals and books. 306

254 Cámara, Miguel, H. de, Madrid.—"La Guirnalda," periodical. 306

255 Monasterio, Mariano, Madrid.—Work on construction. 306

256 Vergara, Mariano, Madrid.—"El Averiguador," periodical. 306

257 Frontáura, Cárlos, Madrid.—"Los Niños," review. 306

258 Galdós & Cámara, Madrid.—National episodes. 306

259 Utor, Luis Maria, Madrid.—Modern agriculture. 306

260 Crespo y Pozas, Leonardo, Madrid.—Studies. 306

261 Llacayo, Augusto, Madrid.—Books on medicine and military surgery. 306

262 Almirante, José, Madrid.—Dictionaries. 306

263 Perojo, José del, Madrid.—"Contemporary Review."

264 Eguilaz Yanguas, Leopoldo, Madrid.—Study on the value of Arabic letters in the Spanish alphabet. 306

265 Carderera, Mariano, Madrid.—Dictionary of education. 306

266 Murillo, Mariano, Madrid.—Bulletin of the library. 306

267 Fernandez de Castro, Manuel, Madrid.—Electricity and railroads. 306

268 Fernandez Peña, Pedro, Madrid.—Geographical atlas. 306

269 García Blanco, Antonio M.—Madrid.—Text works. 306

270 Codera, Francisco, Madrid.—Work on numismatic errors. 306

271 Rada y Delgado, Juan de Dios de la, Madrid.—Work on "Vertu and Antiquities." 306

272 Aldama, Lùcas de, Madrid.—Treatise on industry and mines. 306

273 Pascual, Manuel Joaquin, Madrid.—Scientific works. 306

274 Mata y Fontanet, Pedro, Madrid.—Scientific and literary works. 306

275 Suarez, Victoriano, Madrid.—Scientific and literary works. 306

276 Aguileta y Martinez, Eusebio, Nalda, Province of Logroño.—School books and special treatises. 306

277 Gomez Ayazza, Nicolás, Logroño.—Text-books, and "El Riojano," periodical. 306

278 Martinez Aleson, Tiburcio, Logroño.—Work on teaching children. 306

279 Soto Freire, Manuel, Lugo.—History of Galicia and introductory manual. 306

280 Panero Martinez, Manuel, Lugo.—"The Heart of Childhood." 306

281 Perez Villamil, Ramon Antonio, Lugo.—Pamphlet on weights and measures. 306

282 Rodriguez Villa, Antonio, Madrid.—Etiquette of the house of Austria. 306

283 Marichalar, Amalio, y Manrique, Cayetano, Madrid.—History of the legislation of Spain. 306

284 Cortés y Morales, Balbino, Madrid.—Dictionary of legislation and jurisprudence. 306

285 Bailly Baillière, Cárlos, Madrid.—Books. 306

286 Cruz Ruiz, Ciriaco, Madrid.—Greek grammar. 306

287 Leguina, Enrique, Madrid.—Book, "Illustrious Sons of Santander." 306

288 Conceiro, Gregorio Maria, Madrid.—Philosophy of the creation. 306

289 Martinez Acubillla, Indalecio, Madrid.—Moral guide of youth. 306

290 Palacios, Patricio, Córdoba.—Universal history and elements of geography. 306

291 Rey y Gorrindo, Pedro, Córdoba.—Theory of unknown quantities. 306

292 Surós, Antonio, Gerona.—Text and school books. 306

293 Obradors y Font, Sebastian, Gerona.—Treatise on Latin roots. 306

294 Lozano de Vilches, Enriqueta, Granada.—Literary works. 306

295 University, Granada.—Works, speeches, and memoirs. 306

296 Ribot, Estéban & Bros., Granada.—Memoir. 306

297 Vidal Domingo, Antonio, Huesca.—History and geography. 306

298 Serra y Navarro, Mariano, Jaen.—Report on the condition of agriculture in Jaen. 306

299 Board of Public Instruction, Lérida.—Books. 306

300 Prieto, Atanasio, Logroño.—Treatise on arithmetic. 306

301 Corral y Pastor, Anicéto, Alesanco, Province of Logroño.—Compendium of Castilian grammar. 306

302 Diez, Domingo, Logroño.—Key to moral theology, etc. 306

303 Frovincial Institute, Búrgos.—Statistics, memoirs, etc. 306

304 Beson, Eduardo Augusto de, Búrgos.—Scientific works. 306

305 Dupuy, L., Santiago, Cádiz.—Books on silk industry. 306

306 Astronomical Observatory, San Fernando, Province of Cádiz.—Annals and almanacs. 306

307 Miró, Juan, Jarez de la Frontera, Province of Cádiz.—Books for instruction. 306

308 Vallarino, Baltasar, Cádiz.—Book, "The Anchor Weighed." 306

309 Leon Mainez, Ramon, Cádiz.—"Cronica de los Cervantistas," review. 306

310 Gonzalez, Manuel, Gran Canaria, Canary Islands.—Natural history. 306

311 Berthelot, Sabino, Canary Islands.—Plans, designs, and books on natural history. 306

312 Torres y Gonzales, Bernardino, Tomelloso, Province of Ciudad-Real.—Treatment of intestinal strangulation. 306

313 Torres y Fernandez, Santos, Tomelloso, Province of Ciudad-Real.—Treatment of inguinal ruptures. 306

314 Puente y Rocha, Juan de Dios de la, Córdoba.—Memoir on birds, useful or destructive to agriculture. 306

315 Massa y Sanguineti, José, Córdoba.—Elementary lessons in physics and chemistry. 306

316 Loma y Corradi, Blas de, Alicante.—Review of public instruction. 306

317 Herreros Berenguer, Mariano, Alicante.—On the decimal system. 306

318 Chastron, Leon, Alicante.—Works of D. Leon Chastron. 306

319 Carratalá & Gadea, Alicante.—Typographical album. 306

320 Garcia Arias y Usano, Benito, Avila.—Biblical pictures. 306

321 Pou, Luis, Palma, Balearic Islands.—Book, "La Sal." 306

322 Vidal y Roger, Andrés, Barcelona.—Weekly periodical. 306

323 Jover y Puig, Antonio, Barcelona.—Books on tachigraphy. 306

324 Bastinos, Antonio J., Barcelona.—Books on labor, instruction, and education. 306

325 Rius, Antonio, Barcelona.—Italian grammar. 306

326 Pasaráns y Viñals de Pujol, Elisa, Barcelona.—Books. 306

327 Maspons y Labrós, Francisco, Barcelona.—Popular Catalonian tales. 306

328 Pelayo Briz, Francisco, Barcelona.—Catalonian works. 306

329 Lopez Fabra, Francisco, Barcelona.—"Don Quixote de la Mancha." 306

330 Paula Folch, Francisco, Barcelona.—Medical books. 306

331 Tolrá, José, & Co., Barcelona.—Pamphlets. 306

332 Porcar y Tió, Jaime, Barcelona.—Works on education and morals. 306

333 Llerens Bros., Barcelona.—Dictionaries. 306

334 Lladós y Rius, Magin, Barcelona.—"El Porvenir de la Industria" (periodical). 306

335 Moreno y Roig, Barcelona.—History of the Church, etc. 306

336 Matallana, Mariano, Barcelona.—Mannal for conversation on railroads. 306

337 Casals, Miguel, Barcelona.—Monthly publications. 306

338 Milà y Fontanal, Manuel, Barcelona.—Poetry. 306

339 Horticultural Society, Barcelona.—Horticultural Review. 306

340 Trilla & Serra, Barcelona.—"La Madeja" (periodical). 306

341 Alvarez Carretero, Antonio, Búrgos.—Books. 306

342 Hernandez Martin, Antonio, Búrgos.—Works on the instruction of the deaf and dumb. 306

343 Avila, Calixto, Búrgos.—Guide of Búrgos and Jura de Santa Gadea. 306

344 Archillas y Lopez, Ricardo, Baeza, Province of Jaen.—Paper read at the opening of the Baeza Institute. 306

345 Ginez de los Rios, Hermenegildo, Baeza, Province of Jaen.—Memoirs and projects. 306

346 Serra y Navarro, Mariano, Jaen.—Memoir on the condition of agriculture in the province. 306

347 Torres y Puig, Alejandro, Baeza, Province of Jaen.—Memoir. 306

348 Direction of Customs, Madrid.—Ordinances, models, and documents. 306

349 Alvarez de Araujo y Cuéllar, Angel, Madrid.—Books. 306

350 Gaspar, Editors, Madrid.—Collection of books from the Universal Museum. 306

351 High Normal School of Masters, Salamanca.—Memoir. 306

352 Guichot, Joaquin, Seville.—History of the town of Seville, etc. 306

353 Gozart y Seva, Printers, Alicante.—Catholic seminary. 306

354 Camilo Jover, Nicasio, Alicante.—"El Constitucional" (Liberal daily paper). 306

355 Suso, Manuel, Alicante.—"La Revelacion" (spiritual periodical). 306

356 Corporation of Barcelona.—Reports of public schools. 306

357 Provincial Institute for Secondary Instruction, Palma.—Memoirs. 306

358 Sanchez Almonacid, Mariano, Cuenca.—Memoirs of the Institute. 306

359 Ballester, Guillermo, Madrid.—Memoirs and regulations of the Hispano-Roman College. 306

360 Director of the Institute for Secondary Instruction, Pontevedra.—Memoirs. 306

361 Institute for Secondary Instruction, Seville.—Books, catalogues, and reports. 306

362 Alará, Mariano, Vilarrodona, Province of Tarragona.—Statistical data. 306

363 Provincial Institute, Tarragona.—Memoirs. 306

364 Institute for Secondary Instruction, Toledo.—Memoirs. 306

365 Navarro Reverter, Juan, Valencia.—"From the Turia to the Danube," memoirs of the Vienna Exhibition. 306

366 Institute for Secondary Instruction, Zamora.—Memoirs. 306

367 Naranjo y Garza, Fèlipe, Madrid. —Works on mineralogy. 306

368 National Archæological Museum, Madrid.—Historical descriptive information. 306

369 Colmeiro, Manuel, Madrid.—History of political economy in Spain. 306

370 Commission of Naturalists of the Pacific, Madrid.—Works on natural history. 306

371 Gascon, Domingo, Madrid.—"Guia del Peluquero" (periodical). 306

372 Tuero, Josè Maria, Madrid.—Book, "Hur icanes." 306

373 Borja y Alarcon, Pedro, Madrid.—Studies on the application of photography to topography. 306

374 High Normal School of Masters of the Province, Salamanca.—Books, models, plans, designs, etc. 306

375 Normal School of Masters, Seville.—Memoirs. 306

376 Solis, Prudencio, Valencia.—Atlas of lineal designs. 306

377 Moreno Villena, Pedro, Valencia.—Treatise on political economy. 306

378 Calleja Sanchez, Julian, Valladolid. —Works on anatomy. 306

379 School of Fine Arts, Valladolid.—Works by pupils. 306

380 Veterinary School, Zaragoza.—Historical relation and statistical dates. 306

Institutions and Organizations.

381 Diaz Acevedo, Cleto, Havana, Island of Cuba.—Procedure for the preservation of objects of natural history; zoological objects. 311

382 His Majesty the King of Spain, Madrid.—Sacred music. 313

383 Romero Andia, Antonio, Madrid.—Operatic music. 313

384 Inzenga, Josè, Madrid.—"Echoes from Spain" (popular songs). 313

385 Ocon, Eduardo, Málaga.—Popular Spanish songs. 313

386 Iñiguez, Buenaventura, Seville.—Musical methods for singing. 313

Scientific and Philosophical Instruments and Methods.

387 Gallardo Bastant, Luis, Barcelona. —Equinoctiometer. 320

388 Astronomical Observatory of San Fernando, Cádiz.—Instruments. 320

389 Coello y Quesada, Francisco, Madrid.—Maps of Spain and its possessions. 320

390 Collantes de Teran, Francisco, Seville.—System of classification of autonomous medals. 320

391 Foulon, Josè, Las Corts de Sarrià, Province of Barcelona.—Electric indicator. 320

392 Lamana y Gonzalez, Saturnino, Logroño.—Metric decimal indicator. 321

393 Bartolomè & Agustin Castelvi, Zaragoza.—Grain measures. 322

394 Onis, Juan de, Masnou, Province of Barcelona.—Chronometer. 323

395 Flonis y Pujòl, Juan, Masnou, Province of Barcelona.—Nautical chronometer. 323

396 Aguirre, Francisco, Soria.—Clock. 323

397 Gallardo Bastant, Luis, Barcelona, —Electric piles. 325

398 Aguirre, Francisco, Soria.—Electric piles. 325

399 Echenique y Torres, Florencio Zaragoza.—Portable telegraphic apparatus for campaigns. 326

400 Jorba, Josè, Barcelona.—Piano attachment. 327

401 Guarro, Mariano, Barcelona.—Piano. 327

402 Sancho Velasco, Agapito, Burgos. —Music boxes. 327

403 Arias, Vicente, Ciudad-Real.—Guitars. 327

404 Flores Laguna, Josè, Madrid.—Music boxes. 327

405 Romero y Andià, Antonio, Madrid. —Clarionet and system. 327

Engineering, Architecture, Maps, etc.

406 Garriga y Roca, Miguel, Barcelona.—Architecture. 330

407 Isabella II. Canal, Madrid.—Photographs of works. 330

408 Gonzalez del Valle, Manuel, Segovia.—Model of a bridge. 330

409 Alvear y Lara, Francisco, Havana, Island of Cuba.—Project for the supply of potable water. 330

410 Revenga, Antonio, Valencia.—Design of brakes. 332

411 Corps of Military Engineers, Madrid.—Books, plans, models. 333

412 Bernaldez, Emilio, Madrid.—Military books. 333

413 Heriz, Enrique, Barcelona.—Models of barks, with pamphlet. 334

414 Tranque y Cassi, Lorenzo, Barcelona.—Map of physical geography. 335

415 Paz Mosquera, Manuel de la, Jaen. —Topographical map of the province. 335

416 Provincial Deputation, Lugo.—Geometrical map of the Galician provinces. 335

417 War Depository, Madrid.—Maps and plans. 335

418 Direction of Hydrography, Madrid. —Hydrographic atlas. 335

419 Gonzalez del Valle, Manuel, Segovia.—Plan of provincial high roads. 335

420 Observatory of the Royal College of Belen, Havana, Island of Cuba.—Meteorological observations. 335

Physical, Social, and Moral Condition of Man.

421 Lopez y Gomèz, Salvador, Seville. —Work on gymnasiums. 340

422 Mutual Aid Society, Orense.—Rules. 343

423 Feu, P., & Sons, Madrid.—Collection of medals. 344

424 National Mint, Madrid.—Antique and modern coins. 344

425 Cervera, Valerio, Madrid.—"The Permanent Suffrage" (pamphlet). 345

426 Typographical Establishment of Oliva, Salamanca. 345

427 Provincial Hospitality, Seville.—Rules of the building, pictures, etc. 346

428 Provincial Board of Agriculture, Industry, and Commerce, Santander.—Memoirs, catalogues, and programmes. 349

Painting.

429 Bibilioni, José, Barcelona.—Design in Indian ink. 411

430 Sanchez, Pedro, Cádiz.—Aquarelles. 411

431 Guisasola, Federico, Pontevedra.—Aquarelles. 411

Engraving and Lithography.

432 Provincial Academy of Fine Arts, Cadiz.—Drawings by the pupils. 420

433 Provincial Deputation, Cádiz.—Calligraphic picture. 420

434 Lopez Valdemoro Ortiz de Lazcano, Madrid.—Crayon drawing. 420

435 Aramburu, Ricardo, Seville.—Crayon picture. 420

436 Reynoso, Emilio, Havana, Island of Cuba.—Caligraphic works. 420

437 Gelabert, R., & Bro., Barcelona.—Engravings. 421

438 Lemus, Eugenio, Madrid.—"Danæ," engraved on copper. 421

439 Maura, Bartolomé, Madrid.—"Surrender of Breda," engraved on copper. 421

440 Martinez Espinosa, Juan, Madrid.—Engravings. 421

441 Salcedo, Pedro, Morata, Province of Madrid.—Plan of the Escorial. 421

442 Arnanz, José, Havana, Island of Cuba.—Stone engraving. 421

443 Vidal y Roger, Andrés, Barcelona.—Music, engraved and printed. 422

444 National Calcography, Madrid.—Cuts. 422

445 Solá y Roca, Ramon, Barcelona.—Cuts. 423

446 Mencha y Rodriguez, Faustino, Logroño.—Lithographed figure. 423

447 Carderera y Solano, Valentin, Madrid.—Spanish iconography. 423

448 Fortanet, T., Madrid.—Printed books. 423

448*a* Museum of Artillery, Madrid.—Collection of plates.

449 Ariza y Campano, José, Seville.—Typographic picture. 423

449*a* Gonzalez y Montblanch, Modesto, Barcelona.—Lithography. 423

450 Mateu, José Maria, Madrid.—Chromo-lithographic plates. 424

451 Arnanz, José, Havana, Island of Cuba.—Chromo-lithographs and oleographs. 424

451*a* Blasquez, E.—Album of chromos. 424

Photography.

452 Mariezcurrena, Heribert, Barcelona.—Photographs. 430

453 Nobas, Narciso, Barcelona.—Photographs. 430

454 Moragas, Manuel, Gracia, Province of Barcelona.—Photograph of astronomical clock. 430

455 Casiñol, Leopoldo, Jerez de la Frontera, Province of Cádiz.—Heliochromo. 436

456 Napoleon, A. F., & Son, Barcelona.—Photographs. 430

457 Provincial Commission, Lugo.—Photographic reproductions of buildings. 430

458 Rodriguez Cortes, César, Lugo.—Photographic reproduction of engravings. 430

459 Spreafico, José, Málaga.—Album, with views. 430

460 Alviach & Co., Madrid.—Photographs. 430

461 Juliá y Garcia, Eusebio, Madrid.—Photographs. 430

462 Laurent, J., & Co., Madrid.—Photographs. 430

463 Diaz Otero, Eduardo, Madrid.—Photographs. 430

464 National Mint, Madrid.—Photographs. 430

465 Institute of Secondary Instruction, Seville.—Photographic view. 430

466 Sebastia Vila, Pedro, Seville.—Photographs. 430

467 Arce, Inocencio, Barcelona.—Photograph. 430

468 Economical Society of Friends of the Country, Seville.—Photographs. 430

469 Arce, Inocencio, Barcelona.—Photo lithographic reproductions. 432

470 Almela y Vinet, Francisco, Seville.—Application of varnish to photographs. 432

Industrial and Architectural Designs, Models, and Decorations.

471 Mestres, José O., Barcelona.—Architectural monuments. 441

472 Soler, Federico, Barcelona.—Commemorative project. 441

473 Guastavin, Rafael, Barcelona.—Architectural plans. 441

474 Garriga y Roca, Miguel, Barcelona.—Architectural plans and designs. 441

475 Tenas, Ramon, Barcelona.—Project of a church. 441

476 Rovira y Rabassa, Antonio, Barcelona.—Project of a monument. 441

477 Alonso, Arsenio, Madrid.—Project of a triumphal arch. 441

478 Duque, Eugenio, Madrid.—Projects of monuments. 441

479 Marin Baldo, José, Madrid.—Project of a monument at Colon. 441

Decoration with Ceramic and Vitreous Materials, Mosaic and Inlaid Work.

480 Bustamente & Gallo, Madrid.—Mosaic in wood. 450

481 Rodriguez, Desiderio, Cienfuegos, Cuba.—Inlaid table. 452

482 Cuevas, Fernandez, Pascual, Briviesca, Province of Búrgos.—Pictures of birds, made with their feathers. 454

483 Ruiz, Manuel, Cádiz.—Picture of human hair, and picture made of wafers. 454

484 Lozano y Villarejo, Mateo, Madrid.—Album. 454

485 Serrano y Arenas, Purificacion, Havana, Island of Cuba.—Fancy work. 454

486 Camacho de Diaz, Soledad, Havana, Island of Cuba.—Paper work made by means of scissors. 445

Arboriculture and Forest Products.

487 Forest District of Avila.—Collection of woods. 600

488 Medinaceli, Duchess, widow of, Las Navas y Valdemaqueda, Province of Madrid.—Trunk of pine tree. 600

489 Clarós, José Maria, La Calera, Province of Badajoz.—Cork. 600

490 Molano, Pedro, Badajos.—Cork. 600

491 Carrion, Barcarrota, Province of Badajoz.—Cork. 600

492 Castellanos, Eduardo, Burguillos, Province of Badajoz.—Cork. 600

493 Tos, Josè, Badajoz.—Corks. 600

494 Garriga Francisco, Domingo, San Quirse de Besora, Province of Barcelona.—Arboriculture. 600

495 Corps of Forest Engineers, of various towns of the Province of Búrgos. —Collection of woods. 600

496 Provincial Commission of Búrgos. —Pine hoops. 600

497 Santa Marta, Marquis of, Càceres. —Cork and manufactures. 600

498 Montenegro, Pedro L., Càceres.—Cork and manufactures. 600

499 Torrevias Tunels, Martin, Mesas de Ibor, Province of Càceres.—Cork and manufactures. 600

500 Diaz Agero, Josè, Malladas y Fresno, Province of Càceres.—Corks. 600

501 Torre Diaz, Count of, Jerez de la Frontera, Province of Cádiz.—Cork. 600

502 Castro Chirino, Alonzo, Isle of Hierro, Canary Islands.—Wood. 600

503 Dominguez Mendez, Benigno, Isle of Hierro, Canary Islands.—Wood. 600

504 Delgado, Francisco, Isle of Gran Canaria, Canary Islands.—Wood. 600

505 Melian, Juan, Isle of Gran Canaria, Canary Islands.—Wood. 600

506 Gonzalez, Manuel, Isle of Gran Canaria, Canary Islands.—Pine wood. 600

507 Provincial Board of Agriculture, Castellon.—Cork. 600

508 San Bernardo, Count of, Hornachuelos, Province of Córdoba.—Cork. 600

509 Lopez Seoane, Victor, Coruña.—Collection of woods. 600

510 Güito y Vall-llovera, Josè, Romaña, Province of Gerona.—Cork. 600

511 Institute of Secondary Instruction, Province of Huelva.—Woods. 600

512 Martin Carnes, Eulogio, Aracena, Province of Huelva.—Woods. 600

513 King, Guillermo, & Co., Higuera de Aracena, Province of Huelva.—Cork. 600

514 Corporation of Bollullos del Condado, Province of Huelva.—Cork. 600

515 Chief Engineer of Woods & Forests, Province of Jaen.—Wood. 600

516 Tuñon de Lara, Mateo, Carolina, Province of Jean.—Natural and prepared cork. 600

517 Provincial Institute, Province of Lugo.—Woods. 600

518 Corps of Forest Engineers, Madrid.—Woods, ashes, coal, and barks. 600

519 Iscar, Fernando, Término de Cabaco, Province of Salamanca.—Cork. 600

520 Catáneo, Francisco, Segovia.—Woods. 600

521 Gonzalez de Salcedo, F., Constantina, Province of Seville.—Cork. 600

522 Corporation of Poveda, Province of Soria.—Yew wood. 600

523 Corporation of Gallinero, Province of Soria.—Beech wood. 600

524 Corporation of Villaciervos, Province of Soria.—Juniper wood. 600

525 Corporation of Talvaila, Province of Soria.—Pine wood. 600

526 Corporation of Cortos, Province of Soria.—Oak wood. 600

527 Corporation of Navaleno, Province of Soria.—Pine wood. 600

528 Corporation of Molinos del Duero, Province of Soria.—Pine and poplar wood. 600

529 Campos, Manuel Maria, Havana, Island of Cuba.—Construction woods. 600

530 Inspection General of Woods & Forests, Havana, Island of Cuba.—Construction woods. 600

531 Uria & Pinilla, Navia de Luarca, Province of Oviedo.—Charcoal linget. 600

532 Inspection of Woods & Forests, San Juan, Puerto Rico.—Woods. 600

533 Gonzalez, Manuel, Aquadilla, Puerto Rico.—Ornamental woods. 601

534 Quiroga Lopez, Benigno, Province of Lugo.—Construction and ornamental woods. 601

535 Inspection General of Woods & Forests, Havana, Island of Cuba.—Ornamental woods. 601

536 Verdù Perez, Joaquin, Monòvar, Province of Alicante.—Bastard saffron. 602

537 Monroig, daughter and heir of Ramon, Barcelona.—Dye-stuffs. 602

538 Sande Olivares, Jerònimo, Garrovillas, Province of Càceres.—Dyers' weed. 602

539 Aguilera, Francisco, Priego, Province of Córdoba.—Sumac. 602

540 Lozano y Escobar, Romualdo, Buenache, Province of Cuenca.—Sumac. 602

541 Gallego, Domingo, Buenache, Province of Cuenca.—Sumac powder. 602

542 Corporation of Romancos, Province of Guadalajara.—Sumac. 602

543 Ayuso de las Heras, Angel, Valdearenas, Province of Guadalajara.—Madder root. 602

544 Acero, Antonio, Jaen.—Sumac. 602

545 Guerra M. de Soto, Anacleto, Portillo, Province of Valladolid.—Madder root. 602

546 Velicia, Félix, Traspinedo, Province of Valladolid.—Sumac. 602

547 Inspection General of Woods & Forests, Havana, Island of Cuba.—Dye woods. 602

548 Medinaceli, Duchess, widow of, Madrid.—Resinous products. 603

549 Gonzalez, Manuel, Las Palmas, Canary Islands.—Resins. 603

550 Avilès y Merino, Francisco, Córdoba.—Fennel resin. 603

551 Corps of Forest Engineers, Salas, Province of Burgos.—Resinous products. 603

552 Corporation of Armallanes, Province of Guadalajara.—Pitch. 603

553 Corporation of Mountain Engineers, Madrid.—Resins. 603

554 Ferrandiz, Juan, San Vicente, Province of Alicante.—Salt wort. 604

555 Gonzalez Conde, Diego, Mahora, Province of Albacete.—Saffron. 602

556 Delgado, José, Tarazona, Province of Albacete.—Dried saffron. 602

557 Perez, Albert, & Co., Monòvar, Province of Alicante.—Anis. 602

558 Gonzalez, Manuel, Gran Canaria, Canary Islands.—Seeds. 602

559 Castro y Chirino, Alonzo de, Isle of Hierro, Canary Islands.—Seeds. 602

560 Cabezuelas, Count of, Campo de Criptana, Province of Ciudad-Real.—Saffron. 602

561 Rodriguez, Antonio, Manzanares, Province of Ciudad-Real.—Saffron. 602

562 Rodriguez, Luis, Manzanares, Province of Ciudad-Real.—Saffron. 602

563 Gonzalez y Rubio, Màximo, Ciudad-Real.—Saffron. 602

564 Muñoz Mendez, Eugenio, Humanes, Province of Guadalajara.—Apricot seed. 605

565 Barnuevo, Manuel, Murcia.—Pine seed. 605

566 Onis, Federico, Cantalapiedra, Province of Salamanca.—Flax seed. 605

567 Fernandez, Manuel, Tembleque, Province of Toledo.—Saffron. 605

568 Corporation of Baños, Province of Cáceres.—Chestnut burrs. 605

569 Sanz Pasalodos, Julian, Portillo, Province of Valladolid.—Pine tree cones. 605

570 Sanz, Mariano, Pedrajaz de San Estéban, Province of Valladolid.—Pine seed. 605

571 Tablares, Félipe, Megues de Iscar, Province of Valladolid.—Pine seed. 605

PHILIPPINE ISLANDS.

Educational Systems, Methods, and Libraries.

572 Municipal School for Girls, Province of Manila.—Programme, etc., and pupils' work. 300

573 College of St. Tomas, Province of Manila.—Tables, designs, etc. 300

574 College of San José, Province of Manila.—Books and drawings. 300

575 Municipal Athenæum for Children, Province of Manila.—Album, programme of instruction, and books. 300

576 Jordana y Morera, Ramon, Inspector-General of Woods & Forests, Province of Manila.—Work on the production of the public forests of the Philippine Islands. 306

577 Vidal & Soler, Sebastian, Chief-Engineer of Woods & Forests, Province of Manila.—Books on forestal, woods, and climate of the Philippine Islands. 306

578 Inspection-General of Woods & Forests.—Books on arboriculture. 306

579 Loyzaga & Co., Province of Manila.—"El Comercio" (evening paper), "Revista Mercantil" (semi-monthly paper). 306

580 Ramirez & Girandier, Province of Manila.—"El Diario de Manila" (daily periodical). 306

581 Gonzalez & Moreno, Province of Manila.—"Manual del Viajeró" (The Travelers' Manual). 306

582 The Future of the Philippines, Province of Manila.—"El Porvenir Filipino" (periodical). 306

583 Ramirez & Girandier, Province of Manila.—"La Ilustracion" (semi-monthly paper). 306

584 Gimenez & Preysler, Province of Manila.—"El Oriente" (semi-monthly illustrated paper). 306

Institutions and Organizations.

585 Prieto, Federico, Tabaco, Province of Albay.—Human skulls. 312

586 Sales, Juan, Province of Manila.—Models of negroes, Spanish mestizos, Philippine Indians, etc. 312

Engineering, Architecture, Maps, etc.

587 Inspection-General of Public Works, Manila, Province of Manila.—Plans of public works. 330

588 Municipal Athenæum, Province of Manila.—Meteorological observations. 335

Physical, Social, and Moral Condition of Man.

589 Nueva Cáceres, Bishop of, Province of Nueva Cáceres.—Books on religious instruction. 348

Aerial, Pneumatic, and Water Transportation.

590 Inspection-General of Woods & Forests.—Models of boats and vessels. 594

591 Jackson, Eduard, Province of Manila.—Model of lorcha and life-boat. 594

592 Arsenal of Cavite, Province of Cavite.—Models of boats and vessels. 594

No. 87. UNITED STATES SIGNAL OFFICE.

This exhibit consists of a field telegraph train, with battery, wire wagons, lance trucks, a portable signal tower, and other signaling appliances. It is situated on State Avenue, opposite the English Government buildings.

No. 88. TENNESSEE STATE HEADQUARTERS.

A circular tent, containing specimens of minerals, also a portable charcoal stove patented and exhibited by Rice Moore, of Nashville, Tennessee. Situated on State Avenue, between the Maryland and Iowa buildings.

No. 89. MISSISSIPPI STATE BUILDING.

Size, 42 feet by 25 feet.

Situated on State Avenue, opposite and west of the Japanese Dwelling. The wood used in this structure is from the State of Mississippi, and numbers some hundred varieties in all.

No. 90. GEORGE'S HILL RESTAURANT.

Architects, H. J. SCHWARZMANN, HUGH KAFKA.—Size, 112 feet by 72 feet.
TALMAN & KOHN, Philadelphia.

Located in the western portion of the grounds, on George's Hill, in the vicinity of the State buildings. It is a one-story structure, built of wood, and is also called the Hebrew Restaurant.

No. 91. BISHOP RICHARD ALLEN'S MONUMENT.

Size, base 6 feet by 6 feet; height, 16 feet.

Erected in memory of the Rev. Richard Allen, founder and first bishop of the African Methodist Episcopal Church; situated between Fountain and State Avenues, west of the United States Government Buildings.

No. 92. BOSTON "DAILY ADVERTISER," AND BOSTON "HERALD."

Size, 29 feet by 16 feet.

A one-story frame building, situated on Fountain Avenue opposite northwest corner of Machinery Hall; used as the headquarters of the correspondents and attaches of the newspapers erecting it.

No. 93. AMERICAN NEWSPAPER EXHIBITION.

Architect, M. J. MORILL, Brooklyn, N. Y.—Size, 70 feet by 46 feet.
GEO. P. ROWELL & CO., New York City.

A two-story frame structure of Swiss architecture, on Fountain Avenue, near the lake. It contains a large hall, and a reading-room supplied with newspapers from all parts of the United States. In April, 1876, the United States published regularly 8129 newspapers, a number which exceeds the combined issues of all the other nations of the earth. Regular files of most of these newspapers, and sample copies of all, are alphabetically arranged for exhibition, and a printed catalogue of the whole may be obtained for twenty-five cents. Messrs. George P. Rowell & Co. conduct an agency for the reception of advertisements for all American newspapers, at their office, No. 41 Park Row, New York.

No. 94. CALIFORNIA STATE BUILDING.

Size, 55 feet by 105 feet.

A two-story frame building, situated on State Avenue, opposite the British Government buildings. It contains accommodations for the State Commissioners and visitors, also a large hall for the purpose of exhibiting specimens of the agricultural productions of California.

No. 95. CENTENNIAL FIRE PATROL, No. 1.

This building is situated at the corner of Belmont and State Avenues, and contains two steam fire engines and one truck.

No. 96. TURKISH CAFÉ.

Architect, PIERRE MONTANI.—Size, 51 feet by 65 feet.
TURKISH COMMISSION.

An octagonal frame building, with a coffee-room, parlors, and bazaars, situated on a walk between Fountain Avenue and the Avenue of the Republic, near their junction north of Machinery Hall.

No. 97. FRANK LESLIE'S PAVILION.

This building is situated at eastern end of lake, on Belmont Avenue, adjoining the office of Cook, Son, & Jenkins. It is octagonal in shape, Moorish in design, and highly ornamented. It is used as an office of Frank Leslie's publications.

No. 98. IOWA STATE BUILDING.

Size, 40 feet by 53 feet.

This is a two-story frame building, with portico in front and bay windows on both sides, located on State Avenue between the Missouri and Tennessee buildings, and used as a headquarters for Commissioners from this State.

No. 99. RHODE ISLAND STATE BUILDING.

Architects, WM. R. WALKER and T. J. GOLD, Providence, R. I.

A building of combined Swiss and Gothic architecture, situated on State Avenue, north of the Mississippi State building.

No. 100. VERMONT STATE BUILDING.

Architect, LAMOS, Ticonderoga, Vt.

A building of Doric architecture, northwest of Machinery Hall, and near Fountain Avenue. It contains an Estey organ, from Brattleboro', Vt., and files of Vermont newspapers.

No. 101. MEMORIAL HALL (ART GALLERY).

See Part II., page 9.

No. 102. ART ANNEX.

See Part II., page 10.

No. 103. THE B'NAI B'RITH MONUMENT.

Erected by the Israelites to religious liberty, and situated between the Art Gallery and its annex.

No. 104. PHOTOGRAPHIC EXHIBITION BUILDING.

See Part II., page 137.

No. 105. VIENNA BAKERY, OR COMPRESSED YEAST BUILDING.

Architects, H. J. SCHWARZMANN, HUGH KAFKA.—Size, 146 feet by 105 feet.
GAFF, FLEISCHMANN, & CO., Blissville, Long Island, N. Y.

Designed to exhibit the advantages of using compound yeast in baking. It also contains a coffee house.

No. 106. ANNEX TO MAIN BUILDING (CARRIAGES, STOVES, etc.).

See Part I., page 374.

No. 107. SWEDISH SCHOOL-HOUSE AND METEOROGRAPH.

Architects, ISÆUS & JACOBSSON.—Size, 40 feet by 50 feet.

Situated in the Swedish Government grounds, north of the Main Exhibition Building. A one-story frame house, containing school-rooms and the interior arrangements of a Swedish school-house. The framework for the building was imported from Sweden, and is on exhibition by G. O. Wengstion, of Stockholm.

METEOROGRAPH.—A one-story latticed structure east of Swedish school-house, surmounted by semi-globular cups, connected with apparatus in the interior, showing the velocity of the wind.

No. 108. JAPANESE BAZAAR.

This building is situated on Lansdowne drive, immediately north of Department of Public Comfort, and is designed for sale of Japanese wares.

No. 109. JUDGES' HALL.

Architects, H. J. SCHWARZMANN, HUGH KAFKA.—Size, 152 feet by 113 feet.

A two-story frame building, situated north of the Main Exhibition Building, containing ten committee rooms and four private rooms for the judges; also one large hall in the centre, and a smaller hall in the rear. It is intended for the accommodation of the International Board of Judges. The President of the Centennial Commission and the Chief of the Bureau of Awards have offices in this building.

No. 110. CENTENNIAL PHOTOGRAPHIC ASSOCIATION BUILDING.

Architects, H. J. SCHWARZMANN, HUGH KAFKA.—Size, 150 feet by 30 feet.

The Photographic Association have erected a one-story frame building, located north of the Main Exhibition Building on the east side of Belmont Avenue. It contains one room for the exhibition of photographs, and three rooms for photographers for working purposes.

No. 111. SHEET METAL PAVILION.

Size, 22 feet by 40 feet.

Architect, E. C. RYER.

Situated on Lansdowne drive and Belmont Avenue, opposite lake. Marshall Bros. & Co., Girard Avenue below Front Street, Philadelphia, Pa., exhibit the utilization of galvanized and leaded sheets in the construction of this building. American polished, cleaned, and refined sheets, galvanized cemetery and house work, and corrugated iron. The building itself is a specimen of the workmanship of the Kittredge Cornice and Ornament Co., Salem, O., and illustrates the application of sheet metal to architectural purposes.

No. 112. GERMAN EMPIRE PAVILION.

Architects, H. J. SCHWARZMANN, HUGH KAFKA.—Size, 83 feet by 33 feet.

Constructed of stone, one story high, furnishing accommodations for the Imperial Commissioners as well as German visitors. It is located on Lansdowne drive, between Belmont and Agricultural Avenues.

No. 113. PENNSYLVANIA RAILROAD OFFICE.

Architect, J. M. WILSON, Engineer of Bridges and Buildings, Pennsylvania Railroad Co.—Octagon, 75 feet in diameter.

A two-story frame building, situated on the northeast corner of Belmont Avenue and the Avenue of the Republic, adjoining the Judges' Hall. It is designed for the general ticket office of the four great trunk lines, viz.: New York Central, Erie, Baltimore & Ohio, and Pennsylvania Railroads. Tickets are sold to all points, and information is furnished regarding routes of travel.

No. 114. OFFICE U. S. CENTENNIAL COMMISSION.

The western wing of the Public Comfort Building. It contains offices and committee rooms, and conveniences for newspaper correspondents.

No. 115. BRAZILIAN EMPIRE PAVILION.

This structure is of wood, situated on Lansdowne drive, adjoining the German Government building, and intended for use of the Brazilian Commission.

No. 116. THE DAIRY ASSOCIATION BUILDING.

Architects, H. J. SCHWARZMANN, HUGH KAFKA.—Size, 76 feet by 25 feet; pavilion, 80 feet by 30 feet.

Situated on the north side of Lansdowne Valley, southwest of Horticultural Hall. It is a two-story rustic building, and the surrounding grounds are laid out as a garden in which is a pavilion for the additional accommodation of visitors.

No. 117. RESTAURANT LAFAYETTE.

Architect, H. J. SCHWARZMANN.—Size, 130 feet by 30 feet.

This is a two-story wooden building, located northwest of the Art Gallery, between Lansdowne drive and the brook. It is conducted on the French plan.

No. 118. DEPARTMENT OF PUBLIC COMFORT.

Architects, BALDERSTON & HUTTON, Philadelphia.—Size, 264 feet by 112 feet.

DEPARTMENT OF PUBLIC COMFORT COMPANY, Limited.

W. MARSH KASSON, Chairman, Philadelphia.

Located on the corner of the Avenue of the Republic and Agricultural Avenue, opposite the northwestern corner of the Main Exhibition Building, and fronting the Esplanade. It is a two-story frame building, containing a reception room and ladies' parlor, free to all, barber shop, coat and baggage room, lunch counter, and lavatories. Tickets for places of amusement are on sale, and a daily register of all visitors is kept. The western section of the building is occupied by the President of the Centennial Commission. Office desk room is afforded to exhibitors. The centre portion of the building is surmounted with an open-air gallery, giving a view of the grounds.

No. 119. EMPIRE TRANSPORTATION COMPANY'S BUILDING.

Architects, WILSON BROS. & CO., Philadelphia.—Size, 70 feet by 60 feet.

EMPIRE TRANSPORTATION CO., Philadelphia.

This structure is located north of the eastern end of the Main Exhibition Building, and exhibits by models the method of transportation used by the Empire Transportation Company and its auxiliaries in the United States.

No. 120. FRENCH GOVERNMENT PAVILION.

Architect, DE DARTEIN, France.—Size, 100 feet by 50 feet.

DEPARTMENT OF PUBLIC WORKS, France.

Is constructed of brick and iron, and exhibits models in relief and designs of all the public works of France executed during the last few years; also a collection of books and publications relative thereto. It is situated west of the Art Gallery, on Lansdowne drive.

No. 121. CENTENNIAL FIRE PATROL.

Architect, H. J. SCHWARZMANN.—Size: (1.) 60 feet by 58 feet. (2.) 84 feet by 74 feet.

The Fire Patrol is accommodated in two buildings, built of wood, one story high,

containing halls for the engines, stalls for the horses, and dormitories for the firemen. The smaller house is at the northeast corner of the Main Exhibition Building, and the larger at the intersection of Lansdowne drive and Belmont Avenue. They are supplied with steam fire engines, hose trucks, ladders, and patent fire extinguishers.

No. 122. THE PENNSYLVANIA EDUCATIONAL HALL.

Architects, PETERS & BURGER.—Size, 148 feet by 100 feet.

The object of this Hall is the exhibition of the educational interests of the State of Pennsylvania. It is situated north of the Art Gallery, fronting on the Lansdowne drive. The building is octagonal in shape, and contains thirty-two alcoves for the display, a large assembly room, and a reception room. The following summary represents the exhibits:

1 Representations of kindergarten, primary, grammar, and high schools, with their appropriate furniture, fittings, text-books, apparatus, and work.

Systems of graded schools, with views and models of buildings, charts of statistics, specimens of apparatus, and volumes of scholars' work.

Schools of counties, with county and township maps of school-houses, photographs of buildings, charts of statistics, and scholars' work; plans of school buildings, with systems of heating, lighting, and ventilating, and designs.

Department of Public Instruction charts, showing statistics and outline of public school system, reports, forms, certificates, and laws.

Text-books, school furniture and merchandise, school apparatus and philosophical apparatus; school ornamentation, consisting of a fountain, a series of Rogers' groups, vases, hanging baskets, statues, engravings, etc. 300

2 Academies and Seminaries, with pictures of buildings, specimens of apparatus, cabinet collections, drawings, and paintings.

Universities and colleges, with pictures of buildings, maps of grounds, views of interior rooms, charts of history and statistics, courses of study, text-books, and productions of professors and alumni.

Technical schools and departments, with drawings, casts, models of bridges, specimens of apparatus, etc. 301

3 Normal Schools.—Views of buildings and grounds, models, courses and methods of study, catalogues and reports, charts of statistics, and students' work.

Schools of Design.—Drawings, models, etc.

Commercial Schools.—Specimens of penmanship, etc. 302

4 Institution for the Blind.—Apparatus for teaching, intellectual and industrial work done by the blind.

Institution for the Deaf and Dumb.—Apparatus and methods of teaching. 303

5 Orphan Schools.—Views of buildings, scholars' intellectual and industrial work, books of record, forms and charts.

School for the Feeble-minded.—Text-books, apparatus, methods, etc. 346

6 Sunday-schools.—Collections of Sunday-school material, incentives, maps, charts, forms, and models. 348

7 Peirce's Union Business College, 39 South Tenth street, Philadelphia, Pa. Thomas May Peirce, M.A., Principal and Proprietor; Rev. John Thompson, Business Manager, Residence, 2002 Brandywine street.

BRIEF DESCRIPTION OF THE OBJECTS ON EXHIBITION. *I. Penmanship:* (A.) Seven (7) sets of resolutions engrossed by order of the Philadelphia Board of Public Education, at different times during the past five years, and borrowed from the owners for the purpose of showing the high order of talent employed by the college. (B.) The improvement in writing of fourteen hundred (1400) pupils of the college, showing the success of the penman as a teacher. (C.) A "reward of merit" engrossed by the penman, the like of which is given once a month to the pupil who makes the most improvement in writing during the month. (D.) A large piece of "Specimens of Spencerian Penmanship," and a set of resolutions, complimentary of the Principal, written by the penman, and a "deceiving picture" made with pen, brush, and pencil, by the professor of drawing, each illustrating the power and ability of the executor. (E.) A piece of ornamental penmanship with a bouquet in the centre drawn with the pen, which with the drawings in the work done for the Board of Education, show the penman's skill in pen-drawing. *II. Book-keeping:* (A.) A case of samples of merchandise used by the pupils of the college in the transaction of business among themselves in the Actual Business Department, thus furnishing each pupil with an original and independent set of transactions for his books. (B.) Samples of college currency used in the payment of bills, together with copies of the various business papers used by the students. *III. Course of Instruction:* (A.) A small piece of lettering naming the subjects taught. (B.) A diploma setting forth the subjects of examination for graduation. *IV. Objects of Institution and Classes who patronize it:* A large piece of penmanship setting forth the same in detail.

PARTICULAR MERIT WHICH THE EXHIBITOR CLAIMS FOR HIS EXHIBIT.—I. The highest order of talent in the penman in all the departments of work done with the pen. II. Superior plans for the improvement of the writing of pupils in addition to the excellence of the teacher. III. Ingenious and successful plans for teaching book-keeping and imparting a sound, practical, and economical preparation of young men for business life. 343

No. 123. TELEGRAPHIC BUILDING.

Architects, BALDERSTON & HUTTON, Philadelphia.—Size, 80 feet by 75 feet.
DEPARTMENT OF PUBLIC COMFORT COMPANY, Limited.
W. MARSH KASSON, Chairman, Philadelphia.

The reception room of the Public Comfort building opens from the east into the telegraphic department, which furnishes communication with every portion of the world. Is a one-story frame building opposite the northwest corner of the Main Exhibition Building, fronting the Esplanade. All of the instruments and appliances of the latest design are on exhibition and in use.

1 **Philips, Wm. J., Philadelphia, Pa.**—Printing telegraph instrument, combining the bell, dial, and printing telegraph in one instrument.
2 **Phillips, Eugene F., Providence, R. I.**—Covered wire for telegraphic purposes.
3 **Gray, Elisha, Chicago, Ill.**—Electro-harmonic telegraph, including apparatus for transmitting tunes and eight or more messages simultaneously.
4 **Atlantic & Pacific Telegraph Co., Philadelphia, Pa.**—Automatic and duplex telegraph apparatus.
5 **Gray & Barton, Western Electric Telegraph Co., Chicago, Ill.**—Printing telegraph instrument, with unison attachment.
6 **Frost & Hanline, Philadelphia, Pa.**—Automatic thermostat for fire-alarm telegraph.
7 **Brooks, David, Philadelphia, Pa.**—Underground cables for telegraph wires.
8 **Gamewell, J. N., & Co., New York, N. Y.**—American fire-alarm telegraph, with non-interference repeaters and signal-boxes, and mechanical gong apparatus.
9 **American District Telegraph Co., Philadelphia, Pa.**—District telegraph signal-boxes, with self-starting registers for messengers, guides, and interpreters.
10 **Philadelphia, Reading, & Pottsville Telegraph Co., Philadelphia.**—Duplex and Morse telegraph apparatus.

No. 124. AMERICAN FUSEE COMPANY'S BUILDING.

Size, 14 feet by 14 feet.
W. R. DAVENPORT, New York.

Situated on Lansdowne drive, north of the Judges' building.

No. 125. GLASS MAGAZINE.

Architect, H. J. SCHWARZMANN.—Size, 40 feet by 40 feet.
KLAUTSHECK, THOMAS, & STUART, Philadelphia.

This magazine is erected adjoining the Photographic Association Building, opposite the lake. It is constructed mainly of glass from the factories of the above firm, and contains a full assortment of plate and window glass, and glass shades for the accommodation of exhibitors; is two stories high, and is connected by a bridge with Belmont Avenue.

No. 126. MOORISH VILLA.

Constructed in Morocco by native workmen; exhibited by Dr. Max Schmidl, for the display of native products and fancy articles; conducted by Abd el Kader ben Katib. It is situated on Lansdowne drive, opposite Sheet Metal Pavilion.

No. 127. AMERICAN BIBLE SOCIETY PAVILION.

Architect, I. C. SIDNEY.—Size, 17 feet by 23 feet.

Located near Lansdowne Valley, south of Horticultural Hall, close to the bridge; oval in shape, and surmounted by a carved roof with a projecting cornice. It bears the inscription, "The Bible without note or comment." In front is an open Bible, and over it the text from Jeremiah xxii. 29: "O earth, earth, earth, hear the word of the Lord." Only Bibles and Testaments are sold.

No. 128. HUNTERS' CAMP.

"FOREST AND STREAM" PUBLISHING CO., N. Y., WM. C. HARRIS, Manager.

This camp illustrates sportsmen's life in the backwoods, and contains what is known as a permanent camp, built of logs and bark, with all the appurtenances of hunting and fishing, including portable boats, sporting firearms, rods and fishing

tackle ready for use, portable cooking apparatus, specimens of game birds, a kennel of sporting dogs, etc., etc. An additional feature is a lake or pond stocked with game fish, and a running stream containing brook trout. It is located in the ravine south of Horticultural Hall.

No. 129. OFFICE WATER DEPARTMENT.

A frame building situated on Belmont Avenue, next to the Glass Magazine.

No. 130. SODA WATER STANDS.

These are located at various points east of Belmont Avenue and south of Fountain Avenue.

No. 131. CIGAR STANDS.

These are situated at various points east of Belmont Avenue and south of Fountain Avenue.

No. 132. SINGER SEWING MACHINE BUILDING.

Architect, JAMES VAN DYKE, Elizabeth.—Size, 81 feet by 56 feet.
SINGER MANUFACTURING CO., New York City.

Contains an exhibit of every style of machine manufactured by the Singer Manufacturing Company, and samples of work. It is constructed of wood, and is located on Lansdowne drive, north of the Art Gallery.

No. 133. MEDICAL DEPARTMENT.

Architect, H. J. SCHWARZMANN.—Size, 65 feet by 32 feet 6 inches.

This department is instituted for the immediate gratuitous relief of accidents and sudden cases of illness occurring within the Exhibition grounds. It is located in Lansdowne ravine, equidistant from the Main Building and Horticultural Hall, and contains two wards of three beds each, for male and female patients. An ambulance is provided for the removal of patients to their homes or to city hospitals.

Officers.

WILLIAM PEPPER, M.D., Medical Director.
THEODORE HERBERTE, M.D., Secretary and Resident Physician.
JACOB ROBERTS, M.D., Member of Staff.
S. W. GROSS, M.D., Member of Staff.
H. C. WOOD, M.D., Member of Staff.
R. G. CURTIN, M.D., Member of Staff.
HAMILTON OSGOOD, M.D., Member of Staff.
DE FORREST WILLARD, M.D., Member of Staff.

No. 134. PORTUGUESE GOVERNMENT BUILDING.

Architects, H. J. SCHWARZMANN, HUGH KAFKA.—Size, 55 feet by 51 feet.

A one-story wooden structure, with cupola, located on the northeast corner of Agricultural Avenue and Lansdowne drive, and used to accommodate Commissioners and visitors from Portugal.

No. 135. BANKERS' EXHIBIT.

Architect, JAMES H. WINDRIM, Philadelphia.—Size, 69 feet by 41 feet.

Erected by the banks, bank officers, and bankers of the country for the exhibition of coins and currency. It is located east of the Art Gallery, and between the Photographic Gallery and the Vienna Bakery.

No. 136. FRENCH GLASS EXHIBIT.

R. De Bergne.

This building is constructed entirely of glass, and situated on Lansdowne drive, adjoining Moorish Villa. Is designed to show window glass, tiles, marble, onyx, etc.

No. 137. KINDERGARTEN.

Located north of Carriage Annex on Lansdowne drive, designed to show object teaching. Is a wooden structure, one story high.

No. 138. CENTENNIAL POLICE STATION.

Situated at northeast corner of Main Building, designed for accommodation of police, with cells for prisoners.

No. 139. PHILADELPHIA PAVILION.

Architects, H. J. Schwarzmann, Hugh Kafka.—Size, 88 feet by 66 feet.

For the accommodation of the municipal government of the city of Philadelphia. It contains a hall and parlors, and a room devoted to the use of the Park Commission. It is a one-story frame building, situated on Lansdowne drive, east of Horticultural Hall.

No. 140. MUSIC PAVILION.

Pavilion with ornamented dome, situated in Lansdowne Ravine, near the bridge. For use of bands.

No. 141. BURIAL CASKET BUILDING.

Architect, N. B. Gleason, Rochester, N. Y.—Size, 42 feet by 22 feet.
Schuyler & Armstrong and S. Stein, Proprietors.

The exhibit consists of various designs of funeral caskets, shrouds, etc. It is a one-story frame house with turrets, and is situated on Lansdowne drive near the bridge, and north of Art Gallery Annex.

No. 142. PERFORATED METALS.

This is a one-story brick building with skylight, located between the Carriage Annex and Lansdowne drive, and designed to show the practicability of using perforated window blinds in dwellings.

No. 143. RUBBER ROOFING.

This building is situated on Lansdowne drive, between the Carriage Annex and Pennsylvania Educational Hall. It is octagonal in shape, and surmounted by a tower ten feet high. The exhibit consists of rubber roofing.

No. 144. OFFICE OF CUBAN ACCLIMATION GARDEN.

See Part IV., page 134.

Architect and Manager, Jules Lachaume.—Size, 12 feet by 25 feet.

This structure is designed to show tropical produce, seeds, vegetable physiology, and rustic work, and is situated directly south of Horticultural Hall.

No. 145. NAVAL GROUP.

This bronze statue is situated on the plaza immediately west of Art Gallery.

No. 146. DYING LIONESS.

This bronze work of art is in the plaza due east of Art Gallery.

No. 151. HORTICULTURAL HALL.

See Part IV., page 147.

No. 152. AGRICULTURAL HALL.

See Part IV., page 9.

No. 153. WOMEN'S PAVILION.

See Part III., page 85.

No. 154. FROBEL'S KINDERGARTEN.

Architect, JAMES P. SIMS.—Size, 45 feet by 18 feet.

Situated northeast of the Women's Pavilion. Contains specimens of school work, and illustrates the operation of kindergarten teaching.

No. 155. NEW JERSEY STATE BUILDING.

Architect, CARL PFEIFFER, New York.—Size, 56 feet by 82 feet.

A two-story wooden building erected for the accommodation of the New Jersey State Commissioners, containing offices and private rooms. It is situated on Belmont Avenue, adjacent to the Women's Pavilion. Messrs. Hall & Son, of Perth Amboy, N. J., furnished the brick in the chimney, and Messrs. Maurer & Brevier, of Perth Amboy, the tiles used in the roofing of the building.

No. 156. THE "SOUTH" RESTAURANT.

Architects, H. J. SCHWARZMANN.—Size, 182 feet by 92 feet.
E. MERCER, Atlanta, Ga.

Situated on the northwest corner of State and Belmont Avenues, and is a one-story frame building.

No. 157. KANSAS AND COLORADO STATE BUILDING.

Architect, E. F. KARR.—Size, 132 feet square.

This structure is intended for the accommodation of the Commissioners from the States of Kansas and Colorado, and also for exhibition purposes. It is a two-story wooden building, containing an exhibition hall, private rooms and offices, and is situated east of the Southern Restaurant. The Kansas exhibit consists of agricultural products, minerals, silk cocoons, building stone, cotton, plaster of Paris, birds and animals.

The Colorado exhibit embraces mineral, geological, and ornithological specimens, petrifactions, views of Colorado scenery, the Maxwell cabinets of minerals, birds and animals of the Rocky Mountains, etc.

No. 158. NEW ENGLAND FARMER'S HOME AND MODERN KITCHEN.

Size, 49 feet by 35 feet.
MISS E. B. SOUTHWICK, Boston.

A representation of a New England farmer's home 100 years ago, combined with a modern kitchen, thus illustrating 1776 and 1876. It is one story high, and situated on the corner of State and Agricultural Avenues.

No. 159. THE AMERICAN RESTAURANT.

Architects, H. J. SCHWARZMANN, HUGH KAFKA.—Size, 300 feet by 200 feet.
TOBIASON & HEILBRUN, Philadelphia.

Situated between Agricultural and Horticultural Halls. The seating capacity is five thousand. The banquet room accommodates six hundred guests. The waiters

speak various languages. There is a pavilion devoted to ice cream, etc. A bill of fare will be served either *à la carte* or *table d'hôte*.

No. 160. GERMAN RESTAURANT.

Architect, H. J. SCHWARZMANN.—Size, 200 feet by 150 feet.
PHILIP J. LAUBER, Philadelphia.

Contains three acres for garden arrangements, and is situated north of Horticultural Hall, on Lansdowne drive.

No. 161. TEA AND COFFEE PRESS EXTRACT BUILDING.

Architects, HAYES & MCIVOR, Elmira, N. Y.—Size, 100 feet by 45 feet.

A two-story frame building, composed of four observatories connected by verandas. Located opposite the southeast corner of the Agricultural Building, and devoted to the exhibition of the process of making coffee, tea, and other extracts, by means of pressure caused by the expansion of the materials used.

No. 162. BUTTER AND CHEESE FACTORY.

Size, 100 feet by 116 feet.

A model factory, three stories high, built of wood, and situated east of the Agricultural Building, between it and Lansdowne drive.

No. 163. SODA WATER STANDS.

These structures are located at various points east of Belmont and north of Fountain Avenues.

No. 164. CIGAR STANDS.

These stands are found at various points east of Belmont and north of Fountain Avenues.

No. 165. FARM WAGON ANNEX.

See Part IV., page 135.

No. 166. POMOLOGICAL ANNEX.

See Part IV., page 135.

No. 167. BREWERS' BUILDING.

See Part IV., page 136.

No. 168. APIARY.

See Part IV., page 140.

No. 169. PACIFIC GUANO COMPANY'S PAVILION.

MR. JOHN M. GLIDDON, Manager.

This is, in style, similar to a Moorish kiosk. The exhibit consists of various products of the soil, guano in its various processes of manufacture, models of company's works at Wood's Hole and Chisolius Island, fossil remains, etc., while several acres of ground, in close proximity to their pavilion, are planted in cotton, cane, tobacco, etc., to demonstrate the efficacy of their manufacture. The building is situated on Fountain Avenue, east of Women's Pavilion.

No. 170. ANNEX TO HORTICULTURAL HALL, OR SPECIAL FLOWER PAVILION.

This building is made of glass and iron, located immediately north of Horticultural Hall, and is intended for the display of specialties in flowers.

No. 171. WIND MILLS.

See Part IV., page 140.

No. 172. "PRACTICAL FARMER" (NEWSPAPER OFFICE).

See Part IV., page 140.

No. 173. HAY PRESS.

One Dedrich portable engine, six horse-power, for running hay presses. The presses take in loose hay, baling and banding 20 tons to the hour, or 280 bales.

No. 174. CENTENNIAL POLICE STATION.

A frame building situated east of Hay Press and Agricultural Hall, intended for accommodation of Centennial Guards.

No. 175. SAFETY ELEVATED RAILWAY.

ROY STONE, Proprietor.

This railroad is situated over Belmont Ravine, north of Horticultural Hall. It was designed by Roy Stone, and first erected at Phœnixville, Pa. Examined and fully approved by eminent engineers. Brought here as an exhibit and for conveyance of passengers under the concession to West End Railroad Co. Intended for rapid transit in cities, or for very cheap country railroad for passengers and freight.

No. 176. BOILER HOUSE.

Situated east of Agricultural Hall, and furnishes steam for engine in that building.

No. 177. VIRGINIA STATE BUILDING.

A frame structure one story high, with veranda all around, situated on State Avenue east of the Kansas and Colorado building, facing Horticultural grounds.

No. 178. THE PROTECTIVE FIRE APPARATUS COMPANY OF NEW YORK.

Size, 8 feet by 10 feet.

This is a one-story wooden building, situated on Agricultural Avenue, west of Agricultural Hall, and is designed to display fire extinguishers.

No. 179. POP-CORN STAND.

Situated at corner of Agricultural Avenue, near station of Narrow-Gauge Railroad.

No. 180. FOUNTAIN OF THE JORDAN L. MOTT IRON WORKS OF NEW YORK.

Located east of Horticultural Hall. This is an iron fountain 45 feet in diameter and 26 feet high. There are four figures at the base, and the top is surmounted by the design of "Venus Rising from the Sea."

In the interior of the different buildings are located several fountains of varied designs.

INDEX OF EXHIBITORS.

DEPARTMENT V. AND SPECIAL BUILDINGS.

A.

Abbe, Mrs., Cushions, 89.
Abbey, L., Vestments, 99.
Abbott, Mrs. E. F., Dressing stand, 92.
Abbott, J. M., Holly, 129.
Abendroth & Root, Boiler, 52.
Abendroth & Root Mfg. Co., Boiler, 37.
Abookoff Steel Foundry, Axles, etc., 70.
A. C. C., Embroidered cushion, 101.
Acero, A., Sumac, 140.
Ackerman, Mary, Painting, 94.
Adams, Miss Elizabeth, Painting, 94.
Adams, J., & Co., Life boat, etc., 50.
Adams, J. L., Tobacco cutter, 59.
Adams & Keen, Leather, 116.
Adams & Shaler, Leather, 113.
Adelskold, C., Model, 66.
Adler & Clement, Shoes, 106.
Administration of Mining District, Plan, 69.
Admiralty Electroplate Establishment, 69.
Admiralty Tyova Works, Tackle, etc., 70.
Agrarian Committee, Machine, 67.
Agricultural Department U. S., 79.
Agriculture, Board of, Memoirs, 134.
Aguilar, Mayor M., Books, 134.
Aguilar, S., Books, 132.
Aguilera, F., Sumac, 140.
Aguileta y Martinez, School books, 136.
Aguirre, F., Clock, 138.
Aiken, Henry, Hydrostatic machine, 26.
Air Burning Co., Ironing table, 55.
Alafoozoff & Alexandroff, Leather, 116.
Alagoàs, Province of, Embroidered work, 102.
Alarà, Mariano, Book, 137.
Alauzet, Printing presses, 60.
Albright, A., Harness, 109.
Albright & Stroh, Coal separator, 17; Fire plugs, etc., 41.
Alcott, T. J., Water wheel, 36.
Aldama, L. de, Book, 136.
Alexander Bros., Belting, 38, 53.
Alexander, Miss E., Illumination, 97.
Alexander, E. H., Skins, 114.
Alexander, E. S. & M. S., Sulphur water, 127.
Alexander, W. A., Calc spar, 126.
Alexander, W. A., Wheat, 129.
Alexandroosky, Air bags, 70.
Alissoff, M., Machine, 69.
Allen, Mary W., Chess table, 87.
Allen, S. B., Steam governor, 40.
Allen, T., President Missouri Com'n, 130.
Allen's, Josiah J., Sons, Anti lamina, etc., 39.
Alléoud, E., Pumps, 62.
Allis, E. P., & Co., Engine, 38; Boiler feed regulator, 39; Separator, 49.
Allis, E. S., & Co., Saw-mill machinery, 22.
Allison & Bannan, Engines, 41.
Allison, W. C., & Sons, Tubing, etc., 45.
Almeida, A. B. d', Counterpane, 101.
Almela y Vinet, F., Photographs, 139.
Almirante, J., Dictionaries, 136.
Alonso, Arsenio, Plan, 139.
Alsing, J. R., Model, 65.
Alter, F., & Co., Boots, 106.
Alvarez Carretero, Antonio, Books, 137.
Alvarez de Araujo y Cuéllar, Angel, Books, 137.
Alvarez Gimenez, E., Studies, 136.
Alvarez, Romualdo, Books, 135.
Alvear y Lara, F., Water supply, 138.
Alves, M. R., Toilet covers, 102.
Ambler, W., Machines, 54.
Amer, Wm., & Co., Leather, 115.
American Buttonhole Overseaming & Sewing Machine Co., Machines, 30; Work, 89.
American Cable Screw Wire Co., 111.
American Diamond Rock Boring Co., 17.
American District Telegraph Co., 147.
American Dredging Co., Dredges, 52.
American Engine Co., Engines, 34.
American File Co., Files, 28.
American Fusee Co., Fusees, 147.
American Inlaid Wood Co., 124.
American Life Saving Suit Co., 51.
American Meter Co., Meters, 19.
American Novelty Shoe Co., Shoes, 107.
American Oil Cabinet Co., 39.
American Paper Car Wheel Co., 47.
American Road Steamer Co., 35.
American Saw Co., Saws and machines, 24.
American Sheet & Boiler Plate Co., 124.
American Ship Windlass Co., 52.
American Shoe Tip Co., Toe protector, 111.
American Steamship Co., Models, 52.
American Tube Works, 44.
American Tubular Iron & Steel Ass'n, 38.
American Twist Drill Co., 23, 52.
American Watch Tool Co., Lathes, 24.
American Whip Co., Whips, etc., 110.
American Wooden Shoe Co., Shoes, 108.
Amersfoordt, Mrs. H. M., Oratorio, 100.
Ames & Frost, Dovetailing machine, 19.
Ames Iron Works, Engines, 34.
Ames Manufacturing Co., Engine lathes, 25.
Amherst Stone Co., Stone, 123.
Amoskeag Manufacturing Co., Engines, 53.
Andersdotter, M., Embroidery, 100.
Anderson, Miss Ellen D., Shutter fastener, 87.
Anderson, J. P., Graters, 49.
Andersson, A., Paintings, 100.
Andrew, J. E. H., Tobacco machines, 56.
Andrews, E., Saw sharpener, 19.
Andrews, W. D., Boiler, 52.
Angel Crehuet, widow of, Book, 135.
Angus, G., & Co., Leather, 116.
Ankarsrums Works, Switches, 66.
Annear, J., Blacking, 105.
Anthony, Miss Margaret M., Painting, 93.
Anthony, Mrs. Sarah E., Embroidery, 89.
Antiguedad, C., Books, 133.
Appert-Mandart, Hooks and clasps, 61.
Appleby Bros., Steam cranes, 55.
Appold, G., & Sons, Leather, 113, 115.
Aquometer Steam Pump Co., 40.
Aramburu, Ricardo, Picture, 139.
Aranjo, G. M. d', Handkerchief, 101.
Araño y Majó, Miguel, Books, 135.

Arbel, L., Wheels, etc., 61.
Arbey, F., Machines, 60.
Arboga Foundry & Machine M'fg Co., 66.
Arce, Inocencio, Photograph, 139.
Archbold, S., Meter, 42.
Archer & Brownell, Machine, 49.
Archillas y Lopez, R., Book, 137.
Arias, V., Guitars, 138.
Ariza y Campano, José, Picture, 139.
Armallanes, Corporation of, Pitch, 141.
Armstrong, A., Minerals, 126, 128.
Armstrong, Brother, & Co., Cork cutter, 21.
Armstrong Heater Manufacturing Co., 35.
Armstrong, J. M., Music plates, 33.
Army Arsenal, Rio de Janeiro, Guns, 68.
Arnanz, José, Engraving, 139.
Arnold, Mrs. John H., Pincushion cover, 89.
Asbestos Patent Fibre Co., Steam joints, 39.
Asensio y Toledo, J. M., Books, 135.
Ashcroft, E. H., Gauges, etc., 39.
Asile de la Providence, Plans of buildings, 99.
Aspinwall & Low, Coal, 127.
Association for the Protection of Young Artisans, Madrid, Memoirs, 135.
Assumpçaó, M. M., Handkerchief, 101.
Astronomical & Meteorological Observatory, Madrid, Observations, 135.
Astronomical Observatory of San Fernando, Annals, etc., 137; Instruments, 138.
Athenæum of Barcelona, Reports, 135.
Atkins, E. C., & Co., Saws, 19.
Atkinson, L. H., Crayon portrait, 96.
Atlantic & Pacific Telegraph Co., 147.
Atlas Manufacturing Co., Burr picker, 29.
Atterberg, A. J., Drawing, 66.
Atwater, Miss C. A., Paper lace, 90.
Atwood Railway Wheel Co., 47.
Aub, Hackenburg, & Co., Silk, 107.
Aubin & Baron, Bolting mill, 61.
Auerbach, Mrs. Annie T., Embroidery, 89.
Auger, E., Ship models, 59.
Aultman, Miller, & Co., Dynamometer, 39.
Austen Coal Company, Coal and coke, 127.
Automatic Book Sewing Machine Co., 33.
Automatic Gas Governor Co., 19.
Automatic Scale Co., 46.
Avela, Eduardo, Almanacs, 135.
Averill Chemical Paint Co., Paint, 18, 121.
Avery, J. G., Thread, 28; Wool spinner, 29.
Avila, Calixto, Book, 137.
Avila Normal School, Books, 135.
Avilés y Merino, F., Resin, 140.
Ayllon, R., Music, 134.
Ayuso de las Heras, A., Madder, 140.
Azpiazu, J. A. de, Penmanship, 132.

B.

Babbitt, F. S., Lathe, 22.
Babcock Manufacturing Co., Engines, 43.
Babcock & Wilcox, Boiler, 34.
Babson & Dwight, Fire escapes, 43.
Bach, Jennie & Flora, Table cover, 88.
Bache, Miss J., Crayon picture, 96.
Bacheller, C. H., & Co., Boots, 106.
Backus, Q. S., Bit braces, etc., 28.
Bacon, Mrs. L. C., Shades, 90.
Badger, Mrs. C. M., Paintings, 95.
Baer, A. P., & Co., Bark, 112; Leather, 113.
Bagge, C., Embroidery, 100.
Bagger, L., Printing press, 32.
Baggs, J. T., Sawing machine, 21.
Bagley & Sewall, Force pumps, 41.
Bahia, Arsenal at, Drum, tools, 68.
Bahia, Ladies of Province of, Flowers, 102.
Bailey, H. F., Paper cuttings, 90.
Bailey Wringing Machine Co., 27.
Bailly Baillière, C., Books, 134, 136.
Baily & Co., Elevator, 42.
Bain, J. W., Type writer, 33.
Bainbridge, E., Lamp, 56.
Baird, Mrs. A. G., Moss picture, 100.
Baird & Huston, Boiler, 35; Engines, 37, 51.
Baird, Prof. S. F., Commissioner, 72.
Baird, W., & Co., Cutter, 54.
Baker, Chas. H., Tuyeres, 18.
Baker, G. W., Machine, 111.
Baker, J. A., Architect, 131.
Balderston & Hutton, Architects, 147.
Baldwin, P., Ship model, 59.
Ball, A., Coal, 127.
Ball, C. A., & Co., Trucks, 46.
Ball, Edwin P., Stamping machine, 18.
Ball, Mrs. S. P., Smoothing iron, 87.
Ballard, G. W., Tobacco, 130.
Ballauf, L., Leather, 114.
Ballester, Guillermo, Memoirs, 137.
Baltimore Calfskin Association, Calfskins, 114.
Baltimore Car Wheel Co., 47.
Baltimore Pearl Hominy Co., 49.
Bancroft, E. F., & Co., Boots, 108.
Bancroft, Sarah H., Bathing chair, 87.
Banister & Tichenor, Shoes, 106.
Banjoy, N. I., Wreath, 129.
Bankers' Exhibit, Coins, etc., 148.
Banks, Miss F. M., Carved organ, 91.
Banolas, R., & Co., Fire extinguishers, 64.
Baños, Corporation of, Burrs, 141.
Barber & Harris, Water wheel, 58.
Barber & Son, Flume, 36.
Barcelona, Corporation of, Reports, 137.
Barcelona, Normal High School, Books, 135.
Barcelona, Society of Friends of Instruction, Memoirs, etc., 135.
Barcelona, Society of Industrial Engineers, Publications, 135.
Barclay, Mrs., Berlin wool work, 99.
Bardes, L. C., Leather, 114.
Bare, J., Leather, 113.
Barker, E. W., Car coupler, 48.
Barnard, A. B., Mangles, 31.
Barnard & Leas M'f'g Co., Scourers, 49.
Barnes, C. C., Pump, 58.
Barnes, J. H., Coal, 126.
Barnes, W. F. & John, Lathes, 19.
Barnett, G. & H., Files and rasps, 27, 111.
Barnett, O., Castings, 27.
Barney, Mrs. Sarah E., Paintings, 95.
Barnuevo, M., Seed, 141.
Barnum Richardson Co., Car wheels, 47.
Barr, R. J., Steam trap, 53.
Barrett, Elizabeth G. B., Poems, 91.
Barrett, Mrs. T. M., Carved cabinet, 92.
Barrill, J., Ship model, 59.
Barrios, C., Works, 134.
Barrows & Boyd, Shoes, 106.
Barth, A., & Co., Leather, 115.
Bartlett & Doak, Boots, 106.
Bartlett, H. A., & Co., Blacking, 105.
Bartlett, J. W., Sewing machines, 30.
Bartlett, P. W., Wheat, 129.
Bartlett & Riley, Wheat, 129.
Bartolomé & A. Castelvi, Measures, 138.
Barton, C. S., Indicator, 46.
Barton, I., Crayon picture, 96.
Bary, A. B., Architect, 120.
Bass, J. P., Burnisher, 33.
Bassett, D., Wheat, 129.
Basshor, T. C., & Co., Engine valve, 44.
Bastet Magnetic Engine Co., 38.
Bastida, P. de la, Books, 134.
Bastinos, Antonio J., Books, 137.
Batcheller, E. & A. H., & Co., Shoes, 107.
Bates, B., Carbonators, 44.
Bates, Mrs. Edward, Hand spinning, 87.
Bates, James, Elevator, 43.
Batley, John, & Co., Shaping machine, 26.
Battle Creek Machinery Co., Machine, 20.
Bauerfeind, A., Leather, 116.
Baugh & Sons, Grinding mills, 17.
Baxter, C. M., Band saws, 19.
Baxter Steam Engine Co., 37, 53.
Bayliss, John, Tuyere, 23.
Bay State Shoe & Leather Co., 106.
Beach & Dodge, Leather, 113.
Beach, Edith, Child's rug, 88.
Beach, H. L., Scroll-sawing machine, 20.

Beach, Mrs. John S., Book, 91.
Beamisdarfer & Eby, Rock drills, 17.
Bean, H. & B. F., Mail pouch holder, etc., 48.
Bean, J., Wheat, 129.
Bean, Joseph H., Gas machine, 19.
Bean, P., Buckwheat, 129.
Beatty, Francis S., Transfer machines, 55.
Beautey, H., Dragging apparatus, 59.
Beceari, A. G., Newspaper, 100.
Bechtel, J. A., & Son, Leather, 113.
Beck, C., Paper box machinery, 33.
Becker, A., Card clothing, 57.
Becker & Sons, Balances, etc., 46.
Beckley, A., Coal, 127; Timber, 129.
Beckwith Sewing Machine Co., 30.
Bede & Co., Machine, 64.
Bedell, O. T., Wrench, 27.
Beesley & Sons, Shearer, 54.
Begin, P. N., Headlight, 50.
Beiser, A. & J., Leather, 115.
Belfield, H., & Co., Valves, etc., 39.
Bell, Lucy A., Portrait of Gov. Bell, 93.
Bell, Mrs., Colored crayons, 95.
Bellé, R., Needles, 62.
Benkert, C., & Son, Boots, 107.
Bensenson, J., Boot legs, 116.
Benson, A. M., Stave machinery, 22.
Bent, S. S., Grate bars, 34.
Bentel, Margedant, & Co., Machines, 21.
Berea Stone Co., Sandstone, 123.
Bergström, J. W., Screw cutting machine, 65.
Bernaldez, E. Books, 138.
Bertea, S., Machine, 67.
Berthelot, Sabino, Books, etc., 137.
Beson, Eduardo Augusto de, Works, 137.
Besson, E. A., Books, 134.
Beuthner Bros., Carders, 62.
Beverly, Mrs. O., Knitted shawl, 99.
Bevington & Winters, Glass furnace, 27.
Beyer Bros., Machines, 61.
Bianchini, E., Cork carvings, 100.
Bibb, B. C., & Son, Fireplace heater, 39.
Bibilioni, José, Design, 139.
Bickerton, Mrs. A. B., Wax flowers, 97.
Bickford, D., Knitting machines, 31.
Bieunemback & Bro., Chair of cast iron, 68.
Bigelow, H. B., & Co., Boilers, 34.
Biggs, B. F., & Wells, Pump, 41.
Billings & Spencer Co , Hardware, 27; Sewing machine shuttles, 30.
Bing, J., Mangle, 31; Water wheel, 36; Brake shoe, 46.
Bird, J., Press, 50.
Birkinbine, H. P. M., Valves, 43.
Birkinbine, J., Fire hydrant, 44.
Birrenback & Bros., Hand mill, etc., 68.
Bixby, S. M., & Co., Blacking, 105.
Bjorkman, C. R., Drawing, 66.
Black River Stone Co., Stone, 123.
Blaisdell, J. H., & Co., Machine, 21.
Blake Crusher Co., Crushers, 17.
Blake, G. F., Manufacturing Co., Pump, 41.
Blake, L., Can, 129.
Blake Manufacturing Co., Pumps, 53.
Blake, M. J. S., Surgical instrument, 90.
Blakemore, Mrs. J. W., Painting, 95.
Blancke, C. W. J., & Co., Gauges, 62.
Blandy, H. & F., Engines, 37.
Blanke, E. A. R., Packing, 62.
Blasquez, E., Chromos, 139.
Blauvelt, Mrs. Mary, Gauge, 88.
Bliss, Mrs. Lydia S., Panel, 94.
Bliss & Williams, Presses, 25.
Block, A., & Co., Skins, 116.
Bloomery Iron Works, 126, 128.
Blyth, Miss, Table top, 100.
Boa Viagem, Baroness da, Pillow shams, 101.
Bockius, Geo., Leather, 115.
Bodemer, G., Spinning apparatus, 62.
Bodine Manufacturing Co., Turbine, 36.
Boeck, C., Combing machines, 57.
Boese, C., & Co., Capping machines, 50.
Boggs, J. C., Ore, 126.
Boggs Run Mining Co., Coal, 127.
Bolen, Crane, & Co., Press, 42.
Bolinders, J. & C. G., Machine M'fg Co., 65.
Bolles, J. N., Boring machinery, 17; Engine, 37; Models, 50.
Bollinger, O. J., Water wheel, 36.
Bollullos del Condado, Corporation of, 140.
Bond, E., Iron ore, 126.
Bondi, B., Drawings on stone, 96.
Bonney, Sarah E., Muff, 88; Birds, 98.
Boomer & Boschert Press Co., 33.
Booth, H., & Co., Machine, 54.
Borao, Gerónimo, Dictionary, 135.
Borja y Alarcon, P., Studies, etc., 132, 138.
Borrell, M., Arts, 134.
Borzina, L., Water color, 101.
Bosler, M., Limestone, 123.
Boston & Fairhaven Iron Works, Presses, 32.
Boston Piston Meter Co., Meter, 42.
Boteler, A. R., Ore, 126; Ochre, 128.
Bourdin, Motor, 61.
Bourne, Miss B., Paintings, 100.
Bowes, E., & Son, Pumps, 58.
Bowron, Wm. M., Furnace, 18.
Bowser, J. C., Engine and boiler, 110.
Boyd, G., Coffee roaster, 50.
Boyd, Mrs. Kate, Painting, 94; Designs, 97.
Boyer, W. P., & Co., Blacking, 105.
Boynton & Bancroft, Soles, 106, 108.
Boynton, E. B., Saws, 20.
Boynton, Mrs. E. E., Tea kettle, 87.
Bradford, Anne H., Painting, 95; Shells, 97.
Bradford, H., Coal separator, 17.
Bradford, W. H., Models, 56.
Bradlee & Co., Cable chains, 50.
Bradley, Miss A. J., Crystallization forms, 90.
Bradley, J., & Co., Excavating apparatus, 41.
Bradley Manufacturing Co., Hammers, 23.
Bradley, Mrs. N. M., Suspenders, 89.
Brainard, C. R., Copy distributor, 33.
Brainard, Miss M. M., Wood carving, 91.
Brainard Milling Machine Co., 27.
Branch, Crookes, & Co., Saws, 25; Hanger, 38.
Branche, H., Tools, 60.
Brandon Manufacturing Co., Scales, etc., 46.
Brashear, Miss Lillie, Flower stand, etc., 92.
Braughan, J. J., Tobacco, 130.
Braun, F., Skins, 114.
Bravo, Miss Sophia, Pincushion cover, 89.
Bray, M. H., Marine algæ, 98.
Brayton, G. B., Engine, 37.
Brazil Commission, Flowers, 102.
Brazil, P., Cider mill, etc., 58.
Breed, A. F., Shoes, 108.
Breed, F. W., Shoes, 108.
Breed, W. F., Dole, & Co., Shoes, 108.
Breguet, Machines, 60.
Brehmer, E. F. A., Machine, 65; Stamps, 66.
Bridgewater Iron Co., Forgings, 44.
Brierly, Sons, & Reynolds, Signals, 56.
Briggs, N. A., Washing machine, 31.
Brisbane, A., Pneumatic tubes, 119.
Briz, F. P., Songs, 133.
Broadbent, T., Hydro extractor, 55.
Broadbooks & Co., Folding chairs, 24.
Bromley, J., & Sons, Carpets, 98.
Bronx Wool & Leather Co., 116.
Brooke, H., Glass moulds and presses, 27.
Brookes, W., & Sons, Saddlery, 116.
Brooks, C. S., Cutting system, 88.
Brooks & Cooper, Anvils, 54.
Brooks, D., Cables, 147.
Brooks, E. A., Shoes, 106.
Brooks Locomotive Works, 45.
Broosnitzine, N., & Sons, Leather, 116.
Brosse, Madame S. C., Models, 88.
Brothers, Mrs. H., Wax flowers, 97.
Brotherson, Mrs. H. B. M., Poem, 91.
Brown, Miss, Needlework, 99.
Brown, Aug. P., Boiler fixture, etc., 39.
Brown, A. P., & Co., Shoes, 106.
Brown, B. F., & Co., Blacking, 105.
Brown & Carver, Card cutters, 33.
Brown, C. H., & Co., Engine, 38.
Brown, Edward, Pyrometers, 39.

Brown, E. T., & Co., Leather, 113, 114.
Brown, Miss Fanny G., Sofa pillow, 89.
Brown & Fergus, Steam injector, 40.
Brown, Nettie, Guipure, 88.
Brown, S. H., Veneers, 129.
Brown & Sharpe, Milling machines, 23.
Brown, Son, & Co., Water wheel, 36.
Brown, T. L., Iron ore, 126; Coal, 127.
Brownscombe, Jennie, Painting, 94.
Brownscombe, J., Designs, 97.
Browse, R. H., Sandstone, 127; Wood and iron, 129; Flax, 130.
Bruce's, G., Son, & Co., Type, 33.
Bruning, H. W., Leather, 116.
Brunon Bros., Wheels, etc., 61.
Brush, G., Engine, 58.
Brush, Miss Jennie, Lambroquins, 88, 90.
Bryan & Snyder, Silverware, 18.
Bryant, Miss, Drawing on stone, 96.
Bryant, G. B., Car wheels, axles, 47.
Bryant, J. L., & Co., Life boat, 50.
Brydon, R., Car, 58.
Bubier, S. M., & Sons, Boots, 106.
Buck, C., Leather, 113.
Buck, I. D., Washing machine, 31.
Buck, Martin, Boring machine, 22.
Buckeye Engine Co., Shingle machine, 21, 37.
Buerman, A., Saddlery, 109.
Buffalo Scale Co., Scales, 46.
Buffalo Steam Gauge & Lantern Co., 39.
Buffum, C., Boots, 108.
Bulfinch, Miss Ellen S., Book rack, 87.
Bulkley, J. E., & Sons, Leather, 113.
Bullard, Miss, Painting, 95.
Bullock, C. K., Machinery, 48.
Bullock Printing Press Co., Presses, 32.
Bullock, T. H., & Co., Bellows, 23.
Bulmer & Sheppard, Brick machine, 57.
Burdie, Mrs. A. S., Moss roses, 90.
Burgess Proof Press Co., Proof press, 33.
Burgess & Sons, Belting, 38, 53.
Burgess, Warren, Blowpipe, 26.
Burgos, Province of, Woods, 140.
Burgos, Provincial Comn. of, Hoops, 140.
Buringer Bros., Ohio coat of arms, 124.
Burk, Wm. B., & Co., Cork machine, 19.
Burleigh Rock Drill Co., 41.
Burnet, William, Lubricator, 39.
Burnham, N. F., Water wheel, 36.
Burnham, Parry, Williams, & Co., Locomotives, 45.
Burns & Degnan, Side saddle, 110.
Burr & Co., Tackle blocks, 50.
Burr, Wm. H., Apparatus, 19.
Burt, C. S. & S., Shingle-sawing machine, 21.
Burt, Edwin C., Shoes, 106.
Burt, F. H., & Son, Leather, 112.
Burt, Miss Helen, Paintings, 93; Drawing, 96.
Burt, Martha, Painting, 94; Crayon, 95.
Burt & Mears, Shoes, 106.
Burt & Putnam, Washer, 31.
Burton, Mrs. Mary H., Drawing, 95.
Burton, S., & Son, Engine, 53.
Burton, Susie, Tapestry picture, 88.
Bush & Howard, Leather, 114.
Bush & Smith, Wood-working machinery, 21.
Bush, W., & Co., Leather, 115.
Buss, Charles, & Sons, Saws, 19.
Bustamente & Gallo, Mosaic, 139.
Bustin, Robert, Fire escapes, 22, 58.
Busto y Lopez, A., Treatise, 133.
Butler Braider Co., Braiding machinery, 30.
Butler, Brown, & Co., Ring travelers, 28.
Butler, Dunn, & Co., Leather, 115.
Butterfield, W., & Co., Fastener, 107.
Butterworth, H. W., & Sons, Drying machines, 28; Iron, 37.
Butterworth, J., & Son, Rag picker, etc., 29.
Button, L., & Son, Fire engine, 44.
Buzby, A. G., Water motor, 36.
Buzzell, J. G., & Co., Machines, 111.
Byers & McIlhainy, Stone, 123.

C.

Cabello y Aso, L., Essays, 133.
Cabezuelas, Count of, Saffron, 141.
Cain, P. O., & Co., Moulds, 49.
Caldwell, Miss Hattie D., Cross, 92.
Caldwell & Mather, Melting furnace, 18.
Caldwell & Tod, Stone, 123.
Calkins Champion Washer Co., 31.
Calleja Sanchez, J., Works, 134, 138.
Caller, Alice, Panel, 93; Painting, 94.
Callery, J., & Co., Leather, 114.
Calvo y Pereyra, Works, 134.
Camacho de Diaz, S., Paper work, 140.
Camara, M. H. de, Periodical, 136.
Camden Consolidated Oil Co., 128.
Camden, P. B., Sandstone, 127.
Cameron, Hon. J. D., Secretary of War, 72.
Camilo Jover, Nicasio, Newspaper, 137.
Camozzi & Schlösser, Railway switch, 62.
Campbell & Clute, Table, 30.
Campbell, G., Saw forges, 57.
Campbell Printing Press Co., Presses, 32.
Campillo y Correa, N., Rhetoric, 132.
Campos, M. M., Woods, 140.
Canadian Commission, Lumber, 130.
Cañarte, B. R., Album, 69.
Candee, Mrs. C. T., Pansies, 90.
Canfield, M. B. & I., Shoes, 106.
Canfield Manufacturing Co., Packing, 39.
Cannon, J. D., Boat, 51.
Cantley, R. K., Minerals, 126.
Capon Iron Works, Ores, 126, 128.
Capron Water Wheel Co., 36.
Carderera, M., Books, 134; Dictionary, 136.
Carderera y Solano, Iconography, 139.
Carl, F., Model, 110.
Carlile & Elliott, Safety lock, 42.
Carlisle, Mason, & Co., Chain, 37.
Cárlos, A. de, & Son, Publications, 136.
Carnell, F. L. & D. R., Steam hammer, 23; Brick machine, 26.
Carnell, Geo., Pug mill, 26.
Carpenter, J. M., Taps and dies, 44.
Carpenter, Mrs. M. P., Sewing machine, 31.
Carr, A., Steam pumps, 41.
Carr, Calvin, & Co., Cornice machinery, 18.
Carratalá & Gadea, Albums, 137.
Carré, E., Machine, 61.
Carreras, M., Treatise, 133.
Carrier, Miss, Lace work, 99.
Carrion, B., Cork, 140.
Carroll, Mrs. Andrew J., Shawl, 89.
Carroll, S., Compass, 59.
Carson, Mrs. C. A., Easel, 100; Banner, 101.
Carter, J., Frame, 54.
Carter, W., Tobacco, 130.
Carver Cotton Gin Co., Machines, 111.
Car Wheel Co. of Toronto, 58.
Casals, Miguel, Publications, 137.
Casan, Alegre, History, 134.
Casiñol, L. J. de la F., Chromo, 139.
Cassady, R. B., Maple, 129; Tobacco, 130.
Castellanos, E., Cork, 140.
Castellon, Prov. Board of Agri., Corks, 140.
Castelvi, Bartolome, Books, 135.
Castro, Chirino A., Wood, 140.
Castro y Chirino, A. de, Seeds, 141.
Catalanian Agri. Ins. of San Isidro, Rules, 135.
Catáneo, F., Woods, 140.
Caulkins, Frances M., Histories, 91.
Cavite, Arsenal of, Boat models, 141.
Caw, A., Pumps, 53.
Cayuta Wheel & Foundry Co., Wheels, 47.
Cazaubon, D., Siphons, 61.
Ceará, Province of, Ladies of, Flowers, 102.
Celluloid Emery Wheel Company, 25.
Celluloid Harness Trimming Company, 109.
Centennial Photographic Ass'n., Photographs, 144.
Central Normal School, Books, 134.
Central Virginia Copper Mine, 126.
Cerero, R., Treatise, 133.
Cervera, V., Pamphlet, 138.

Chadeayne & Christian, Rubber boots, 109.
Chairmen of Wards in Phila., 86.
Chalmers, Spence, & Co., Felting, 34, 53.
Chamberlain, Mrs., Water colors, 99.
Chamberlain, Mrs. A. H., Drawings, 96.
Chambers, Bro., & Co., Brick machine, 26; Newspaper folder, etc., 33.
Chambers, E., Calfskins, 114.
Chamorro, R., Book, 133.
Champion Fence Co., Iron fence, 124.
Champion Fire Extinguishing Co., 43.
Champney, Mary H., Stockings, 88.
Chandler, A. G., Carved wood work, 97.
Chandler, Hon. Z., Secretary of Interior, 72.
Chao, Alejandro, Book, 135.
Chapin, Miss, Photograph, 97.
Chaplin, Miss Christine, Painting, 95.
Chapman, H., Hydro extractor, 41.
Chapman, Miss Laura M., Lap table, 87.
Chapman Valve Manufacturing Co., 45.
Chard & Howe, Lubricator, 39.
Charland, W., Ship model, 59.
Charlton, J., Clamp, 38.
Chase, B. F., Glass blowing machines, 27.
Chase, F. D., Deck irons, 42.
Chase M'f'g Co., Pipe cutting machine, 24.
Chase, Pliny E., Foot lathes, 25.
Chase Turbine M'f'g Co., Machines, 20, 36.
Chastron, Leon, Books, 137.
Chatfield, Underwood, & Co., Belting, 38; Leather, 113.
Chatillon, J., & Sons, Scales, 46.
Chaudron, J., Apparatus, 64.
Chauveau, Engines, 60.
Chaves, M. G. M., Embroidery, 101.
Cheeny, Miss Daisy, Tidy, 89.
Chenailler, Evaporator, 60.
Chesney, R. M., Scroll-saw machine, 20.
Child, C. C., Presses, 32; Paper cutter, 33.
Childs & Bloomer, Leather, 113.
Chilian Commission, Machinery, 120.
Chisholm, R. N., Car coupler, 58.
Chomel, I. A., Swinging berths, 50.
Chretien, J., Automatic apparatus, 61.
Christoffel, T. B., Tube cleaners, etc., 39.
Cicile, Larbre, Bottle cleaners, 61.
Cincinnati School of Design, Metal work, 90; Wood carving, 91.
Cincinnati Shoe Manufacturing Co., 106.
Claflin, A., & Co., Boots, 107.
Claflin, W. M., Shoes, 107.
Clagne, Randall, & Co., Machine, 33.
Clapp, Mrs. F. W., Photograph, 96.
Clapp & Jones M'f'g Co., Fire engines, 44.
Clark, Miss A. F., Fire screen, 98.
Clark Bros., Pipe tongs, 27.
Clark Bros. & Co., Hardware, 27.
Clark, John A., Drip pan, 24.
Clark, Miss S. A., Paintings, 101.
Clark, Rufus F., Cylinder oiler, 39.
Clark, Standfield, & Co., Models, 56.
Clark Thread Co., Spool machine, 21, 28.
Clarke, Kate W., Painting, 93.
Clarke, R., Lasts, 57.
Clarós, J. M., Cork, 140.
Clay, C., Minerals, 126; Woods, 129.
Cleveland Machine Works, Gig, 29.
Cleveland Paper Box Machine Co., 33.
Cleveland Patent M'f'g Co., Cutters, 25.
Cleveland Screw & Tape Co., Screws, 27.
Cleveland Steam Gauge Co., Gauges, 39.
Clinton, L., Crayon, 96.
Clothier, Miss Minnie J., Lace, 88.
Clough Stone Co., Stone, 123.
Clough & Williamson, Machine, 24.
Coal Valley Coal Co., Coal, 127.
Coats, J. & P., Machines, 54.
Cobb, Z., & Sons, Engine, 37; Steel springs, etc., 46.
Coblence, Electrotypes, 60.
Cochrane, J., Cleats, 48.
Codera, F., Treatise, 136.
Coe, A. G., & Co., Wrenches, 27.
Coe, C. W., Screw cutter, 24.
Coello y Quesada, F., Maps, 138.
Coffin, C. A., & Co., Shoes, 108.
Coffin & Woodward, Pumps, 41, 52.
Cohen, C. J., Envelope machine, 34.
Cohnfeld, S., Apparatus, 70.
Colburn, L. J., Confectionery, 49.
Coldbrook Rolling Mills Co., Nails, 59.
Cole, B., Coal, 127.
Cole, W. D., Stuffing, 105.
Colford, H., Spark catchers, 59.
Collantes de Teran, F., Book, 138.
Collard, Miss Isora, Book racks, 92.
College of Messrs. Peffort, Work, 132.
Collier, L., Confectioners' machines, 56.
Collier, Miss Lizzie M., Teapot rest, 92.
Collignon Bros., Cane-seat work, 87.
Collins, Miss C. L., Case, 97.
Colloday, Jos. O., & Bro., Lathe, 22.
Collodo, C., Instruction, 132.
Collord, Miss Helen, Book covers, 92.
Colmeiro, M., History, 138.
Colt's Patent Fire Arms Manufacturing Co., Engines and boilers, 35.
Columbia Car Spring Co., Car springs, 48.
Colvin, Margaret P., Washing machine, 87.
Colwell & Bro., Sugar refiner, 49.
Colwell Lead Co., Pipe, etc., 45.
Coman, Mrs. C. B., Charcoal sketch, 96.
Combined Power Co., Geared machinery, 22.
Comeleran, F. A., Treatise, 133.
Comens, L., Wax flowers, 100.
Commission of Naturalists, Madrid, Books, 138.
Compton, G., Cotton loom, 98.
Conant, Miss C. W., Painting, 93.
Conant, Mrs. Orpha, Hat, 88.
Conceiro, G. M., Treatise, 136.
Conde & Co., Pumping engine, 41.
Condit, Hanson, & Van Winkle, Machine, 18.
Congdon, Miss C. A., Afghans, 89.
Conklin, N. A., Mill, 49.
Conner, Miss E., Lace, 99.
Connery, J. W., Boilers, 34.
Connihan, E., & Co., Preservative, 105.
Connolly & Power, Shoes, 107.
Conolly, Mrs. I., Illuminations, 101.
Conrad, Fabel, & Mooney, Leather, 112.
Conservatory of Arts, Books, 134.
Constant, Wine press, 61.
Constant, Mrs., Leather work, 99.
Convent of Sacred Heart, Plan, 99.
Coogan, O., Machine, 111.
Cook, A. B., & Co., Pulleys, 38.
Cook, Miss H. M., Painting, 93; Book, 97.
Cook & Pulver, Lubricators, 53.
Cook, Son, & Jenkins, Ornaments, 131.
Cooke, J., & Co., Lamps, 56.
Cooper, Miss Alice, Prié-dieu, 92.
Cooper, John H., Model, 23.
Cooper, Jones, & Cadbury. Lathes, 23; Pumps, 40; Plumbers' supplies, 45.
Cooper, R., Shoe, 106.
Coore, E. R. N., & Co., Nail machine, 57.
Cope, E. T., & Sons, Water wheel, 36.
Copping, G. H., Lozenge machine, 59.
Corbin, A., & Co., Leather, 113.
Cornell University Machine Shop, Lathe, 24; Engine, 37.
Cornellas y Grau, C., Grammar, 132.
Cornely, E., Machines, 60.
Corner & Cooper, Cotton stamps, 29.
Cornet y Mas, C., Compendium, 133.
Cornwell, Mrs. Elmira, Chart, 88.
Corps of Engineers, Madrid, Books, 134.
Corral y Pastor, A., Publication, 136.
Corrathers, L., Coal, 127.
Corrientes, Provincial Com. of, Oars, 69.
Cort, Mrs. C. A. van, Torpedo boat, 51.
Cortazar, D., Treatise, 133.
Cortejarena & Aldebo, Manual, 133.
Cortes y Morales, B., Dictionary, 136.
Cortos, Corporation of, Wood, 140.
Coshocton Stone Co., Sandstone, 123.
Cosmopolitan Emery Wheel Co., 24.

Costa, M. E. da, Collar of linen thread, 101.
Cósta, T. C. da, Pumps, 68.
Costello, P. & P., Leather, 113.
Cotman, W., Ship models, 59.
Cottrell & Babcock, Press, 32.
Couture, Machines, 60.
Couvrette & Frigon, Stern model, 59.
Coux des Roseaux, Oil cups, etc., 61.
Covell, Miss A. C., School models, 90.
Cowen, Mrs. S. J., Book case, 87; Books, 91.
Cox, F., Model, 52.
Cox, H. W., Pumps, 58.
Cox & Sons, Tools, 25; Water wheel, 36.
Coxe Bros. & Co., Coal breaker, 17.
Crabb, W., Hackles, etc., 29.
Crager, J., Tobacco, 130.
Craig & Brevoort, Condensers, 40.
Cramer, Miss, Embroidery, 99.
Crane, Abby T., Wood engravings, 96.
Crane Bros. M'f'g Co., Engines, etc., 41.
Crane & Co., Bits, 109.
Crawford, Miss, Tatting flounce, 99.
Crawford, G. B., Bracket, 128.
Creed, E., Boots, 106.
Crespo y Pozas, L., Studies, 136.
Cresson, G. V., Pulleys, 38.
Crichton, A. K., Illuminated books, 98.
Crittenden, L. S., Horse blanket, etc., 110.
Croff & Camp, Architects, 130.
Croft, Wilbur, & Co., Pans, 49.
Crosby Steam Gauge Company, 44.
Crossley, Harry A., Stair jointer, 20.
Crossman, M., Hand car, 46.
Crotta, G., Music, 100.
Crouch & Fitzgerald, Trunks, 109.
Crowell, J. W., & Co., Vessel models, 51.
Cruickshank, A. B., Cleats, 56.
Cruz, Ruiz C., Grammar, 136.
Cuau, Injector, 61.
Cuban Acclimation Garden, Seeds, etc., 149.
Cuchi, Tomas, Treatise, 135.
Cuenca, H., Books, 134.
Cuesta, Pedro, Works, 135.
Cuevas, Fernandez Pascual, Pictures, 139.
Cuevas, J. A., Table, 134.
Culmer Spring Co., Railway springs, 47.
Culver, Mrs. J. O., Art cabinet, 93.
Cumbie & Donald, Model, 49.
Cuming, M. A., Hat press, 31.
Cummings, Geo. L., Grindstone frames, 25.
Cummings, J., & Co., Leather, 115.
Cunningham & Co., Leather, 115.
Cunningham, Alice H., Decorated china, 95.
Cunningham, S., Corn, 129.
Curtis & Co., Saw, 19.
Curtis, Jessie, Drawings, 95.
Curtis & Mitchell, Paper cutters, 33.
Cushing, N. B., Punching machines, 24.
Cushman, Ara, & Co., Shoes, 107.
Cushman, C. S., Stitching attachment, 112.
Cutlan Shoe Sewing Machine Co., 112.
Cutler, Misses N. M. & M. A., Glove box, 91.
Cutter, J. D., & Co., Silk loom, 28.

D.

Dailey, M. E., Trestle, 58; Ship model, 59.
Dall & Callaway, Stakes, 129.
D'Allessandro, B., Life preserver, 67.
Dalsheimer Bros., Shoes, 107.
Dalsheimer, Leon, & Bro., Shoes, 108.
Dane, J. F., Shoes, 107.
Danforth Locomotive & Machine Co., Silk machinery, 28; Locomotives, 45.
Daniels, T. E., Fire escape, 43.
Darrah, Sophia T., Painting, 94.
Dart, E., & Co., Pumps and engines, 40.
Daschback, E. J., Gas machine, 19.
Date, J., Diving apparatus, 58.
Daughaday, J. W., & Co., Printing press, 32.
Dausch, J. G., Watchmakers' tools, 62.
Davenport, E. W., Painting, 95; Water color, 97.
Davenport, Fairbairn, & Co., Car wheels, 47.
Davey, Mrs. Israel, Slate stand tops, 87; Jewelry, 89; Arbutus, 98.
Davey, Paxman, & Co., Boiler, etc., 55.
David Bros., Forges, 60, 61.
Davidson Rubber Co., 109.
Davis, C. S., Cotton goods finisher, 28.
Davis & DuBois, Tallow engine cups, 39.
Davis, Georgie A., Drawings, etc., 95.
Davis, J. B., Water heater, 40.
Davis, Madam, Ores, 126.
Davis, Mrs. J. A., Marking in ink, 96.
Davis & Richmond, Slate machine, 26.
Davis Sewing Machine Co., 30.
Davis, Whitcomb, & Co., Shoes, 160.
Dawley & Derby, Lasts, 108.
Day, George H., Lime screens, 18.
Day, T., Leather, 114.
Dayton, Miss M. G., Photographs, 96.
Deal, M., & Co., Brush smutter, etc., 48.
De Bergne, R., Glass, tiles, etc., 149.
De Caindry, W. A., Sec. U. S. Ex. Board, 72.
Dechamp, C., Boiler apparatus, 61.
Decker, D., Leather, 113.
Decrow, A. W., Treadle, 31; Brake, etc., 46.
De Dartien, Architect, 145.
Deford & Co., Leather, 113.
Degener & Weiler, Printing presses, 32.
De Haven, A. R., & Son, Shoes, 107.
Delgado, F., Wood, 140.
Delgado, J., Saffron, 141.
Dell, J. C., Scales, 46, 49.
De Long Bros., Leather, 112.
Delrez, Felix, Cards, 64.
Dempsey, J. A., Tobacco, 130.
Dempsey, J. E., Cereals, 130.
Dennis, T. H. P., & Co., Valves, 56.
Dennisson, J. N., Steam fire engine, 43.
Denroche, S. B., Illuminated maps, 98.
Deny, L., Refiner, 60.
De Pilgrom, Miss V., Bedstead, 92.
Deplanque, Son, sr., Emery millstones, 61.
Derkx-Schlopfer, I. F., Types, 64.
Derriey, C., Typography, etc., 60.
Dervaux, A., Feeding apparatus, 64.
Desmond, T., Gig, 50.
Desmortis, Quennessen, & Le Brun, Apparatus, 60.
Despard Gas Coal Company, Coal, 127.
Desper, W. E., & Co., Meters, 43.
Dethiou, Gilles, & Co., Cards, 64.
De Tombay, A., Models, 64.
Devereaux, A., & Son, Leather, 114.
De Waru, L. E., Shoes, 107.
Dexter Spring Co., Carriage spring, 36.
Diamond Glass Co., Glass, 124.
Diamond State Iron Co., Bars, 48.
Dias, H. J., Embroidered cushion, 101.
Diaz Acevedo, C., Zoology, 138.
Diaz Agero, J., Corks, 140.
Diaz Otero, Eduardo, Photographs, 139.
Diaz y Martinez, M., Instruction, 132.
Dick, C. J. A., Bronze ingots, 23.
Dickeson, A. M., Shell work, 97.
Dickerson, Mrs. Y. G., Camp chair, 87.
Dickinson, H., Ore, 126.
Dickinson, M., Corn, 129.
Dickson, J., & Co., Engraving on rubber, 32.
Dickson M'f'g Co., Locomotives, 45, 46.
Diego, P. de, History, 134.
Dienelt & Eisenhardt, Carpet loom, 29.
Diest, E. van, Bed cover, 100.
Diez, Domingo, Book, 137.
Dinning, H., Ship models, 59.
Direction of Customs, Madrid, Statistics, 134; Models, etc., 137.
Direction of Hydrography, Books, 136, 138.
Director of the Colony of Paraná, Fringe, 102.
Director of the Institute for Secondary Instruction, Memoirs, 137.
Disston, Henry, & Sons, Saws, 19.
Disston, T. S., Blower, 42.
Dixon, Maria R., Painting, 94.
Dixon, Smith, & Co., Belting, 58.

Dixon, W. T., & Bro., Shoes, 106.
Dodd, A. W., & Co., Oils, 105.
Dodd, Mrs. Wm., Casket, 92; Table, 93.
Doddridge Music & Art School, Paintings, 128.
Dodge, Mrs. A. C., Counterpane, 90.
Doherty, Miss Clara, Fruit plate, 92.
Dohle, H., Shoes, 108.
Dolne, L., & Co., Belting, 64.
Domange, Lemierre, & Co., Belting, 61.
Domestic Sewing Machine Co., 31, 111.
Dominguez Mendez, B., Wood, 140.
Dominick, Mrs. G., Wall pocket, 92.
Donaldson, Lucy, Panels, 93.
Donlevy, Alice, Painting, 95; Wood engraving, 96; Design, 97.
Donnaghe, A. P., Clay, 127; Crockery, 128.
Donnelly, Miss A., Flower stand, 92.
Doriot, Constant, Foot lathe, 25.
Dornan Bros. & Co., Power loom, 29.
Doughty, S. H., Belts, 109.
Douglas, W. & B., Pumps, 41, 44.
Douglass Manufacturing Co., Edge tools, 19.
Dowe, Florence A., Water colors, 94.
Dowling, T. W., Scroll saw, 19.
Downer, J. E., Corn, 129.
Downing & Price, Leather, 112.
Drake, Miss Ada P., Jardiniere, 92.
Draper, G., & Son, Spinning frame, 29.
Dreisbach, W., & Co., Bars, 107.
Dress Reform Co., Shoes, 106.
Drown, Mrs. C. L., Glass signs, 97.
Drury, Mrs. L., Dress cutting system, 87.
Dubois, W. & F. Joseph, Machine, 64.
Dücker, Baron F. F. von, Drawing, 62.
Dudgeon, Richard, Punches, 24; Engine, 37; Hydraulics, 42.
Duffy, J. W., Mineral water, 128.
Dugoujon, sr., Saws, 60.
Du Laney, G. L., & Co., Sewing machine, 30.
Dulin, C. Petroleum, 126.
Duncannon Iron Co., Nail machines, 22.
Dunlap, Miss Sarah, Wall pocket, 92.
Dunn, P., Nail machine, 57.
Dunn & Samson, Ship models, 59.
Dunning, Miss, Tray, 90.
Dunning, Miss M., Tile painting, 95.
Dunston Engine Works Co., Breaker, 54.
Dupuy, L., Books, 137.
Duque, Eugenio, Plans, 139.
Durafort, Soda water machine, 61.
Durand, F., & Marais, Brick machines, 60.
Durieux & Co., Wheels, etc., 64.
Durrschmidt, Mill stones, 61.
Durvie, Machine, 61.
Dutcher Temple Co., Loom temples, 28.
Dyer, J. P., Corn, 129.
Dyer, Miss Fannie E., Child's apron, 88.
Dyson Needle Co., Needles, 31.

E.

Eagle Meter Co., Meter, 42.
Eagle Odorless Excavating Co., 41.
Eames, Charles J., Boiler plates, 23.
Eames Vacuum Brake Co., Brake, 46.
Earle, Benj. A., Wood oiling machine, 22.
Earls, R. H. C., Crayon, 96.
East New York Boot, Shoe, and Leather Manufacturing Co., Shoes, 106.
Eastabrook, Wires, & Co., Screws, 108.
Eaton, Cole, & Burnham Co., Brass goods, 27.
Eaton & Ayer, Bobbins, etc., 29.
Eaton, Hon. J., Com. of Education, 72.
Eau Claire Lumber Co., Bridge, 52.
Eccles, J., Coupling, 38, 42, 48.
Echenique y Torres, F., Telegraph, 138.
Eckfeldt & Richie, Belting, 38.
Economical Society of Friends of the Country, Barcelona, Papers, 135.
Economical Society of Friends of the Country, Seville, Catalogue, 135; Photograph, 139.
Economical Society, Madrid, Pamphlet, 135.
Edgemoor Iron Co., Rotary puddler, 18.
Edinburgh Western Tanning Co., Skins, 116.
Edoux, L., Special system, 61.
Edson's Steam Recording Gauge Mf'g. Co., 40.
Edson, T. P., Life preserver, 98.
Edson, M. B., Gauges, 53.
Edwards, E. B., Axle rolls, 24.
Efinoff, Vamps, 116.
Eguilaz Yanguas, L., Study, 136.
Ehrenpohl, C., Embroideries, 180.
Ehret, M., jr., Waterproof roofing, 121.
Eicholt, John H., Gas generator, 18.
Eickmeyer Hat Blocking Machine Co., 31.
Ekman, C., Wheels, 66.
Elasas & Pritz, Leather, 114.
Electro Magnetic Machine M'f'g Co., 60.
Elizalde, J. A., Geometry, 134.
Elk River Iron & Coal Co., 126, 128, 129.
Elleson, A., Fancy work, 99.
Ellis, C. R., Heater, 35.
Ellis, W. I., Blower, 55.
Ely, H. G., & Co., Leather, 115.
Emelianoff, A., Boot legs, 116.
Emerson, R. W., & Co., Shoes, 108.
Emerson Stone Saw Co., Circular saw, 25.
Emerson's, T., Sons, Shoes, 108.
Empire Portable Forge Co., Forges, 23.
Empire Transportation Co., Models, 145.
Employment Society, Afghan, 88.
Enfer, A., jr., Forges, etc., 61.
Enfer, E., Forges, 60, 61.
Engineer's Shop, St. Petersburg, 70.
England & Bryan, Leather, 115.
Englis, J., & Son, Steamship models, 51.
English, W.; Canoe, 59.
Enterprise Coal Co., Coal, 127.
Entrekin, W. G., Enameler, 30.
Epouse, Miss L., Fancy work, 99.
Erie City Iron Works, 34, 38.
Erskine, M. A., & Co., Shoes, 106.
Ervien, C. W., & Bro., Engines, 37.
Escolapias of San Antonio, Books, 132.
Estrada, A., Types, 69.
Eureka Bark Mill Co., Bark mills, 22.
Eureka Fire Hose Co., 43.
Eureka Manufacturing Co., Lathe, 19.
Evans, Dalzell, & Co., Pipes and tubing, 44.
Evans, T. R., Boots, 106; Lasts, etc., 112.
Everaert, J., & Sisters, Laces, 100.
Ewart Manufacturing Co., Drive chains, 47.
Excelsior Brick & Stone Co., Model, 20.
Excelsior Gas Machine Co., 19.
Exeter Machine Works, Boiler, 35; Blowers, 42, 52.

F.

Fabregas y Bru, J., Desk, 132.
Faculty of Medicine, Works, 133.
Fagersta Iron and Steel Works, Axles, 66.
Fagersta Manufacturing Co., Saw blades, 65.
Fairbairn, Kennedy, & Naylor, Borer, 54; Carding engine, 55.
Fairbanks, Miss I., Lace, 99.
Fairbanks & Ewing, Scales, etc., 46.
Fairbrother, H. L., & Co., Belting, 43; Leather, 114.
Fairchild, Lawhead, & Co., 129.
Fales, G. S., Belt, 53.
Fales, Jenks, & Son, Combined fly frame, 28.
Falk, Louis, Fire escape, 43.
Falley, L., & Co., Boots, 106.
Falling Rock Coal Co., Coal, 127.
Fargo, C. H., & Co., Boots, 106.
Faria, M. D. de, Cushion, 102.
Farnham, Mrs. Sarah A., Painting, 94.
Farquhassen, Miss W., Painting, 100.
Farr, George, Model, 26.
Farrar, J. B., Shoes, 108.
Farrell, Misses, Lace, 99.
Farrell, Mrs. K., Worsted work, 99.
Fauchinetti, A., Painting, 101.
Faure & Kessler, Apparatus, 60.
Faust, A. D., & Son, Leather, 113,

Fay, J. A., & Co., Wood-cutting mach'y, 20.
Fay, Sarah R., Blanket, 88.
Fearon, T., Boats, 50.
Feary, T., & Sons, Shoes, 106.
Felder, C., Plaiting machines, 31.
Fergus, J. & D., Bottling machine, 44.
Ferguson, Edith, Painting, 94.
Ferguson, Mrs. Mary L., Paintings, 93.
Ferguson, W., Coal, 126.
Fernandez, Cardin, Mathematics, 133.
Fernandez de Castro, M., Treatise, 133; Electricity and railroads, 136.
Fernandez de Figares, Manual, 133.
Fernandez, Fontecha, Astronomy, 133.
Fernandez, M., Saffron, 141.
Fernandez, Peña P., Atlas, 136.
Ferrandiz, J., Salt wort, 141.
Ferrari, B., Apparatus, 67.
Ferre, S. P., Printing press, 32.
Ferreira, M., Crochet case, 102.
Ferrell & Jones, Steam pump and engine, 41.
Ferris & Miles, Machine tools, punching machines, 23; Blowing engine, 42.
Feu, P., & Sons, Medals, 138.
Fichtenberg, Powder bellows, 18.
Field, Miss E. C., Panel, 93.
Fields, W., Coal wagon, 37; Steel rails, 47; Models, 50.
Fine Art School, Programmes, 133.
Fine Arts, Provincial Acad. of, Drawings, 139.
Finnegan, J. H., Stone, 123.
Finnegan, M., Stone, 123.
Firmenich, J., Boiler, 35.
First & Pryibil, Carving machine, 19.
Fish, Warren L., Sewing machines, 31.
Fisher, J., & Co., Clipping-plate machine, 57.
Fisher, J. W., Corn, 129.
Fisher & Norris, Rail joints, 48; Vises, 52.
Fisher, W., Ochre, 128.
Fisk, J. E., Machine, 111.
Fisse-Thirion & Co., Machine, 61.
Fitchburg Machine Company, Lathes, 25, 52.
Fitts, B., Whistle, 53.
Fitts, E. E., Globes, 90.
Flagg, S. G., & Co., Carriage hardware, 17; Gray iron, 22; Fittings, 45.
Flanagin, W. J., & Co., Wrenches, 27.
Flather & Co., Engine lathes, 25.
Fleck, A., Steam engine, 58.
Fleming, G., & Sons, Engine, 58.
Fleming, R. E., Wheat, 129.
Fleming, T., & Son, Teeth, 54.
Fletcher & Dwyer, Burnishers, 105.
Fleury, J. M., Mill, 60.
Flint, C. M., Saw mill, 22.
Flonis y Pujól, Juan, Chronometer, 138.
Florence Sewing Machine Company, 30.
Flores Arrate, L., Books, 134.
Flores Laguna, J., Music boxes, 138.
Florez, José Maria, Book, etc., 135.
Flower, J., & Bro., Hydrant, nut machine, 44.
Flower, W., Life saving apparatus, 51.
Flynt, Mrs. Olivia P., Under garments, 88.
Fogg, Houghton, & Coolidge, Shoes, 107.
Foley, Miss M. F., Bas reliefs, 101.
Follensbee, G. S., Pump, 41.
Folsom, A., Wind wheel, 36.
Foly y Velasco, Books, 133.
Fontaine, H., Engines, 60.
Fontyn, G., Shoes, 107.
Forbes, J. W., Quartz battery, 37.
Force, Mrs. F. H., Cabinet, 93.
Ford, O. D., Sandstone, 123.
Ford y Cusido, widow of, Review, 135.
Forepaugh, W. F., & Bro., Leather, 112.
Forest District of Avila, Woods, 140.
Forsaith, S. C., & Co., Spring hammers, 23; Folding machine, 33.
Forstner, Benjamin, Wood auger, 19.
Forsyth, Mrs. S. M., Hosiery, 88.
Fortanet, T., Books, 139.
Foss & Pevey, Cotton card, 29.
Foster, A. J., & Co., Leather, 115.
Foster & Quiggle, Shoes, 108.
Foulds, Thomas, jr., Elevator, 43.
Foulon, J., Indicator, 138.
Fowler, F. G., Propeller, 39.
Fox, Jane Ann, Dish drainer, 87.
Fraile y Valles, Arithmetics, 134.
Fraley, Miss Mollie E., Painting, 93.
Francis, F., Ship model, 51.
Francis & Loutrel, Folding machine, 33.
Franklin, Mrs. Anna L., Water color, 95.
Frantz, D., & Son, Leather, 113.
Franz & Pope Knitting Machine Co., 30.
Freal, Machines, 61.
Freeborne, Sarah M., Sculpture, 91.
Freeland, R., Soap machinery, 57.
Freeman, Miss F., Sculpture, 101.
Freiberg, H., Leather, 114.
French, A., & Co., Car springs, 47.
French, Elizabeth J., Magnetic appliances, 91.
French Government, Models, 145.
French, Julie Blanche, Bedsteads, 87.
French, Mrs. B., Autumn leaves, 100.
Frere, Miss C. F., Water colors, 98.
Frick & Co., Portable engine, 34.
Friedland, M., Pumps, 70.
Froebel's Kindergarten, School work, 150.
Frontáura, C., Review, 136.
Frost & Hanline, Thermostat, 147.
Fuchs, Helene, Dress, 89.
Fuente, V. de la, Biography, 136.
Fuller, Warren, & Co., Stoves, 118.
Fulton Foundry Company, Turn-table, 17.
Furbush, M. A., & Son, Carding machines, 29.
Fürst, B., Needlework, 100.

G.

Gadd, T., Cams, 54.
Gaff, Fleischmann, & Co., Yeast, 143.
Gaité Nuñez, J., Books, 133.
Galdo, M. M. J. de, Natural history, 132.
Galdós & Cámara, Books, 136.
Gale, A. D., Harness, etc., 110.
Gallardo Bastant, L., Equinoctiometer, 138.
Gallego, D., Sumac, 140.
Galligher, Bernard, Drills, 23.
Gallinero, Corporation of, Wood, 140.
Galloway, W. & J., & Sons, Boilers, 55.
Gally, M., Printing presses, 32, 33.
Gama, D., Towels and pillow shams, 101.
Gamewell, J. N., & Co., Telegraph, 147.
Garcia Arboleya, J., Tables, 133.
Garcia, A. F., Publications, 136.
Garcia Arias y Usano, Benito, Pictures, 137.
Garcia Ayuso, F., Grammar, 132.
Garcia Blanco, A. M., Text books, 136.
Garcia Maceira, A., Treatise, 134.
Garcia, N., Books, 134.
Gardella, L., Plan, 69.
Gardiner Drill Co., Machines, 17.
Gardiner, Miss Mary Jane, Cutter, 88.
Gardner Bros., Shoes, 108.
Gardner, Miss J., Tools, 49
Gardner, N. H., & Co., Leather, 114.
Garlaudat, Refrigerating apparatus, 61.
Garloe, A. E., Carbonate of iron, 126.
Garmount, W., Ship model, 59.
Garretson, I. H., Brick machine, 26.
Garriga Francisco, D., Arboriculture, 140.
Garriga, M., Tachigraphy, 132.
Garriga y Roca, M., Plans, etc., 138, 139.
Garrison, A., & Co., Chilled rolls, 22.
Garry Iron Roofing Company, Roof, 124.
Gascon, D., Periodical, 138.
Gas Motor Factory, Motors, 62.
Gaspar, Editors, Books, 137.
Gasparini, G., Machine, 67.
Gastaldo, J., Cataract, 134.
Gaston Coal Mines, Coal, 127.
Gates, Allen, & Bro., Shoes, 107.
Gates, J., Belt, 53.
Gates, J., & Sons, Belting, 38.
Gauley, Coal, 127.

Gaussart, Machines, 61.
Gavit Machine Works, Paper machine, 29.
Gawthrop, A., & Son, Hydraulic rams, 41.
Gay, Miss A., Crayon, 96.
Gaya y Marzal, C. M., Publication, 136.
Gazapo y Loma, J. M., Book, 132.
Geddes, Mrs., Tapestry, 99.
Gehrckins, C. O., Packing, 62.
Gelabert, R., & Bro., Engravings, 139.
Gemmel, Miss A., Piano cover, 99.
General Transatlantic Co., Model, 61.
Genseman, Miller, & Co., Leather, 113.
Geographical and Statistical Institute, Publications, 135.
George & Du Laney, Screw machinery, 24.
Gerlach, Peter, & Co., Stave machine, 19.
German Sewing Machine Factory, 62.
Gerosa, A., Embroideries, 100.
Gervais, E., Machines, 61.
Getchett, J. S., Capstan, 52.
Gibbs Loom Harness & Reed Co., 28.
Gibson, F. N., Machine, 111.
Giffard & Berger, Machines, 61.
Gilbert & Barker, Gas machine, 18.
Gilbert, C., Machine, 49.
Gilbert, Lucia M., Painting, 93.
Gildersleeve, S., & Sons, Ship models, 51.
Gillender & Sons, Glassware, 118.
Gillis & Geoghegan, Boiler feeder, 35.
Gillmore, J. C., & Co., Trunks, 109.
Gilly, J. L., Cars, 46.
Gilpin, Mrs., Fancy work, 99.
Gil Sumbiela, Luis, Treatise, 135.
Gil y Justo Mone, J., Method, 134.
Gimenez & Preysler, Newspaper, 141.
Gimson & Coltman, Knitting machines, 55.
Ginez de los Rios, H., Memoirs, 137.
Gingras, E., Ship models, 59.
Giol y Soldevillã, I., Photography, 132.
Girard, A., Canoe, 59.
Gironés & Orduña, Poetry, 135.
Gittens, J. K., Insoles, 107.
Gittings, Mrs. J., Illuminated poem, 97.
Glade Fire Brick Co., Fire clay, 127, 128.
Gladwin, C. P., Engines, 37.
Glass, W., Boat, 51.
Glassford, Mrs., Paintings, 99.
Gleason, John, Lathe, 22.
Globe Manufacturing Co., Printing presses, 33.
Glöeckner Bros., Blocks, etc., 62.
Gloucester Iron Works, Pipes, 44.
Goddard, Miss L., Glass screen, 98.
Goig & Co., Books, 132.
Golcher Bros., Bridle winkers, 110.
Gold, T. J., Architect, 143.
Goldberg, I., Types, 70.
Goldie, G., Rowing machine, 51.
Goldie & McCullough, Water wheel, 58.
Golding & Co., Printing presses, 32.
Goldmark, J., Elevators, 42.
Goldsborough, Mrs. G. R., Lock, 90.
Gomersall, Alfred, Engines, etc., 43.
Gomez Ayazza, N., Text books, 136.
Gonzalez Conde, D., Saffron, 141.
Gonzalez de Salcedo, F., Cork, 140.
Gonzalez del Valle, M., Model, 138.
Gonzalez Domingo, C., Invitations, 134.
Gonzalez Hidalgo, J., Works, 134.
Gonzalez, M., Woods, resins, 140; Seeds, 141.
Gonzalez, Manuel, Book, 137.
Gonzalez Martí, M., Manual, 134.
Gonzalez & Moreno, Manual, 141.
Gonzalez-Regueral, S., Periodicals, 135.
Gonzalez y Luna, I., Penmanship, 132.
Gonzalez y Montblanch, M., Lithography, 139.
Gonzalez y Rubio, M., Saffron, 141.
Goodall, Braun, & Waters, Panel planer, 22.
Goodrich, J., jr., Boots, 108.
Goodrich & Porter, Shoes, 108.
Goodrich & Whitehouse, Shoes, 108.
Good Shepherd, Convent of, Plan, 99.
Goodwin, A. H., Ferns, etc., 97.
Goodwin, Wm. W., & Co., Gas meters, 18.
Goodyear & McKay Sewing Mach. Ass'n., 112.
Goodyear Rubber Co., Belt, 53, 109.
Gordon, G. P., Printing presses, 32.
Gordon, Margaret S. G., Paintings, 95.
Gorham, W. B., & Co., Presses, 32.
Gossamer Rubber Co., Coats, etc., 109.
Gould, Roscoe J., Dovetailing machine, 22.
Goulding, Johnston, & Co., Hoop machine, 22.
Gould's Manufacturing Co., Pumps, etc., 42.
Goyard, F., Crucibles, 60.
Goyard, L., Restaurant, 131.
Gozapo y Loma, J. M., Books, 132.
Gozart y Seva, Plan, 137.
Graells, F., Books, 133.
Graf, L., Machine, 112.
Graf, L., & Bro., Boots, 106.
Graham, J. S., & Co., Grooving machine, 20.
Granada, University of, Publications, 136.
Grande, J. M., Works, 133.
Grant, D. Conrad, Ice plow, 51.
Grant, G. B., Calculating machines, 33.
Grant, Mrs. J., Mitts, etc., 99.
Graves, Ball, & Co., Lasts, 106.
Graves, L. S., Machines, 114.
Graves, Miss D., Painted candles, 98.
Graves, Miss L., Panels, 94.
Graves, Mrs. J., Table top, 100.
Gray Bros., Shoes, 107.
Gray & Barton, Telegraph instruments, 147.
Gray, E., Telegraph instruments, 147.
Gray, J. Hammond, Screw machinery, 25.
Gray, Mrs. John H., Chenille work, 89.
Gray, W., Schoolwork, 128; Corn, 129.
Great American Brick Machine Co., 26.
Greatorex, Eliza, Paintings, 93; Pen and ink sketches, 96; Illustrations, 97.
Great Western Mining & M'f'g Co., 126.
Green, E., & Son, Fuel economizer, 55.
Green, R. H., Wheat, 129.
Greenawalt, J. & J. K., Leather, 112.
Greene, Miss, Needlework, 98.
Greenlee, Bro., & Co., Sash machine, 21.
Greenwich Machine Works, 22, 39.
Greenwood & Batley, Machines, 54, 55.
Greer, S. Y., Fire hose, etc., 43.
Gregg Impact Brick Machine Co., Model, 26.
Gregg, Isaac, jr., & Co., Brick machine, 26.
Gregg, Wm. L., Brick machine, 26.
Grenier, F., Pilot boat, 59.
Grier, W. W., Hydraulic ram sentinel, 36.
Griffin, J. K., Car coupler, 58.
Griffith & Wedge, Engine, 37.
Griffiths, John W., Machines, 20; Model, 51.
Grinnel, I., Ice yacht, 50.
Griscom & Co., Mills, 49.
Griswold, Mrs. Ellen D., Sash fixture, 87.
Groetzinger, A. & J., Leather, 114.
Grosvenor, J. A., Steam pump, 41.
Grothe, H., Models, 62.
Grout, Miss S. A., Paintings, 95.
Gruber, John P., Gas works, 19.
Grunwald, M., Furs, 116.
Guard, J., Stave, 129.
Guarro, M., Piano, 138.
Guastavin, Rafael, Plans, 139.
Gueret Bros., Machine, 61.
Guerin, T., Water measurer, 42.
Guerra, M. de Soto, A., Madder, 140.
Guichot, Joaquin, Book, 137.
Guilbert, Mrs., Hand sewing, 89.
Guild, Mrs. Emma C., Sketch, 91.
Guild, J. F., Leather, 115.
Guinet, A., & Co., Looms, 60.
Guion, Geo. G., Leather, 115.
Guisasola, Federico, Aquarelles, 139.
Güito y Vall-llovera, J., Cork, 140.
Gümpel, C. G., Rudder, 56.
Gunpowder Pile Driver Co., 42.
Gurley, Miss Clara, Desk, 92.
Gutta Percha Co., Hose, 53.
Gutta Percha & Rubber M'f'g Co., 43.
Gwinn, M., Limestone, 127.
Gwynne, J. & H., Models, 55.
Gwynne & Co., Pumps, 55.

H.

Haas, J., Knitting machine, 31.
Haase, J. A., Clamps, 27; Car step, 46.
Hacker, J. C., & Co., Leather goods, 109.
Haedrick, H. G., & Sons, Harness, etc., 110.
Hagner Drug Milling Co., Chasing mills, 18.
Hahn, H., & Stumpf, Calfskin, 114.
Halderman, L., & Son, Stone, 123.
Hale, E. W., Oil, 128.
Hale & Porter, Petroleum, 126.
Hale, Sarah Josepha, Books, 91.
Hales, F., Autumn leaves, 98.
Hall, M. H., Machine, 111.
Hall, W. W., Petroleum, etc., 127.
Hallet, Hervey H., Harness saddle, 110.
Hallock, M., Wood engraving, 96.
Halloway, Charles T., Fire engine, etc., 43.
Halsey, S., & Son, Leather, 113, 114.
Ham, Miss Amanda S., Rag rug, 87.
Hamburg American Sewing Machine Co., 62.
Hamburg American Steamship Co., Model, 62.
Hamilton, H., Stone, 123.
Hamilton, J., Barytes, 126.
Hamilton, S. M., Brick kiln, 26; Cement, 52.
Hamilton Steeled Wheel Co., Car wheels, 48.
Hamilton Web Co., Boot webs, 107.
Hamlin, G. A., Machine, 25.
Hamly, Wm., Horse collars, etc., 110.
Hammer, B., Wood, 129.
Hammer, J., Pine, 129.
Hammett, L. C., Printers' rollers, 32.
Hammond, H., & Co., Steel hammer, 23.
Hammond, Mrs., Needle work, 99.
Hampson, Whitehill, & Co., Engine, 37.
Hampton Emery Co., Emery, 52.
Hanan & Dewees, Dies, etc., 111.
Handley, H., Oats, 129.
Hanmore, J. W., Felting, 35, 53.
Hanna, C. T., Dryer, 49.
Hannahan, J., Bits, 57.
Hansell, W. S., & Sons, Harness, etc., 110.
Harbert, Elizabeth B., Books, 91.
Harbert & Raymond, Saw mill, 22.
Harbor Master, Office of the, Model, 69.
Hardenburgh, Hartwell, & Co., 112.
Harding, Miss C., Embroideries, 98.
Hardy Machine Co., Card grinder, 25.
Hardy Patent Pick Co., Picks, 54.
Hare, Miss E. A., Photograph, 97.
Harkinson, R., Hooks for tanners, 111.
Harlan & Hollingsworth, Ship models, 51.
Harley, E. G., Darner, 90.
Harman, Mrs. E. F., Dress designer, 88.
Harper, William, jr., Screw propeller, 39.
Harrington, C. B., Yacht, 51.
Harris, C. S., Fan, 49.
Harris, Griffin, & Co., Gas meters, 18.
Harris, J., & Co., Shingle machine, 57; Water wheel, 58; Capstan, 59.
Harris, Samuel, Sifting machines, 23.
Harris, Th., Needle sharpener, 57.
Harris, Thomas, Architect, 130.
Harris, T. M., Corn, 129.
Harrisburg Car Manufacturing Co., 46.
Harrison Boiler Works, Boilers, 34, 52.
Harrison, E., Mill, 49.
Harrison, Mrs., Pictures, 100.
Harrison, M. W., Pen and ink sketch, 96.
Harrison, S. L., Car axle, 47.
Harrison, W. H., Elevator, 42.
Harrold, G. W., Steam trap, 36.
Hart, Roswell, Machines for hoops, 22.
Hart, W., jr., Moulding apparatus, 30.
Hartford City Coal and Salt Co., Coal, 127.
Hartford Foundry and Machine Co., 37.
Hartford Steam Boiler Inspection, 35.
Hartness, J., Balloon, 50.
Hartshorne, Mrs., Fancy work, 99.
Harvey, Easton, & Co., Lathe mill, 22.
Harvey, R. T., Iron ore, 126.
Harvey, W. T., Cereals, 130.
Hashbarger, A. P., Cereals, 130.
Haskell, B. C., & Dickerman, Trimmings, 107.
Haskins Steam Engine Co., 35.
Hassam, Miss Harriet A., Ribbon, 89.
Hathaway, Mrs. May, Scarf, 88.
Hathaway, Mrs. P. V., Native flora, 98.
Hathorn, Davis, Campbell, & Davey, 41.
Haubner & Heller, Skins, 115.
Haurey, Henry F., Tube brushes, etc., 39.
Hausler, J., Blacking, 105.
Hauthaway, C. L., & Sons, Dressings, 105.
Hautin Sewing Machine Co., Machine, 111.
Havana Academy of Sciences, Works, 135.
Havens, W. H., Saw tables, 19.
Hawkins, T. H., Shoes, 108.
Hawley, A., Dredge, 52.
Hawley & Branson, Knitting machine, 31.
Hawley, H. Q., Water motors, 37.
Haworth, J., Turbines, 36.
Haynes, T., & Sons, Pump, 55.
Hazlehurst, Samuel, Brick moulds, 26.
Hazlewood, M., Painting, 94.
Heald, D., Shook, 129.
Heap, J., & Co., Tools, 54.
Heard & Sons, Design, 124.
Heaton, D., Button fastener, 111.
Hedlund, J., Machines, 66.
Hegreville, P., Shawl, 101.
Heim, A., Belting, 38, 53.
Helweg & Co., Boots, 107.
Hemmer, L. P., Washing machine, 62.
Hench, A. L., Leather, 112.
Hench, Geo., Leather, 112.
Henderson, Annie W., Roses, 94.
Henderson, C. M., Boots, 107.
Henderson, D. E., Painting, 128.
Henderson Hydraulic Car Brake Co., 46.
Hendey Machine Co., Planer, 24.
Hendry & Bartholomew, Bird cages, 98.
Henry, Mrs. Annie M., Paintings, 93.
Henry, Prof. J., Smithsonian Institute, 72.
Henshaw, E., Tools, 107.
Heold, Sisco, & Co., Steam pumps, 41.
Hepworth, S. S., Extractor, 49.
Herald, D., Canoes, 59.
Herezinesk, W., Straps, 70.
Heriz, E., Models, 138.
Her Majesty The Queen, Napkins, 98.
Hermann, G., Machines, 61.
Hernandez, A., Books, 134.
Hernández, Martin Antonio, Works, 137.
Herreras Berenguer, Mariano, Review, 137.
Herrick, Caroline K., Panel, 94.
Herrick, Lizzie A., Carved eggs, 91.
Herring, W. P., & Co., Skins, 115.
H. R. H. Princess Louis of Hesse, and H. R. H. Princess Christian, Banner screen, 99.
Hersey, Washburn, & Co., Leather, 113.
Hertle & Thompson, Wire heddles, 28.
Heslop, Mrs., Fancy wool work, 99.
Hesse, C., Metal capsules, 70.
Hesser, Mrs. C. F., Flower stand, 92.
Hetzel, Herman, Speed indicator, 39.
Heubel, Miss Melanie, Picture, 89; Wax work, 97.
Heulings, A., Creepers, 107.
Hewett, Mrs., Book form, 91; Poem, 97.
Hewitt & Brennan, Swings, 122.
Hewitt & Follensbee, Machines, 28.
Hewitt, W., Model, 55.
Hey, H. T., Gauge, 28.
Hey, M., Beer pump, 44.
Heydecke, Wm., Hames, 110.
Heywood, C. L., & Co., Fire escape ladder, 43; Bridge guards, 48.
Hibernia Tannery, Leather, 112.
Hickman, J., Corn, 129.
Hickman, Towsley, & Swan, Gas utilizer, 18.
Hickok, W. O., Paper ruling machines, 32.
Hicks, J. J., Gauges, 55.
Hidden, E. S., Leather boards, etc., 112.
Higgins, H. Van, Meter, 42.
High Normal School, Books, 138.
High School of Architecture, Books, 134.
Highways, School of Engineers of, 134.
Hill & Clark, Boat hooks, 56.

Hill, J., Filling box, 28.
Hill, J. R., & Co., Harness, 110.
Hill, M. L., Coal, 127.
Hill, W., Iron ore, 126.
Hilles & Jones, Slotting machine, 25.
Hillhouse, Mary, Songs, 91.
Hillman, L., Measuring machine, 29.
Hinds, Mrs. F. B., Hair wreath, 97.
Hine, Franc E., Flowers, 93.
Hinkley, J., Sweeper, 31.
Hirst, Miss Claude R., Easel, 92.
His Majesty the King of Spain, Catalogues, 136; Music, 138.
Hitchcock Lamp Co., Lamps, 48.
Hitchcock, S. S., Scales, 46.
Hoadley Co., Portable engines, 35.
Hoadley, J. C., & Co., Engine, 53.
Hoard, Mrs. John W., Tidy, 89.
Hochlaya, Convent of, Plan, 99.
Hock, J., & Co., Petroleum motor, 63.
Hocker, G., Boots, 106.
Hoe, R. R., & Co., Printing presses, 32.
Hoffman, A. O., & others, Limestone, 123.
Hoffman & Hoyt, Copying presses, 33.
Hoffman, J., Leather, 112.
Hofmark, Bruno, Belt, 70.
Holbrook, Harriet Jane, Panels, 93.
Holcomb, S. N., Hair work, 97.
Holland Manufacturing Co., Machines, 28.
Hollinger, A., Leather, 114.
Hollingshead, Miss H., Picture frame, 92.
Hollowell, A. D., Illuminated mirror, 98.
Holmes, C., Painting, 94.
Holmes, E. & B., Keg machines, 21.
Holmes, Horatio L., Cap bar, etc., 43.
Holmes, James, Stave machine, 20.
Holmes, J. E., Borer, 54.
Holmes, Payton, & Taylor, Engines, 55.
Holstein, A., Leather, 114.
Holyoke Machine Co., Web callender, 29.
Holzer, Wm., Glassware, 26.
Homans, Miss S. E., Painted porcelain, 95.
Home Knitter Co., Knitter for stockings, 31.
Hook, G., Yacht, 50.
Hooker, W. D., Steam pumps, 41.
Hoole, J. R., Perforating machine, 34.
Hooper, A. S., Portfolio, 98.
Hooper, C., jr., Basils, 116.
Hooper, C. W., & Sons, Tanning, 116.
Hooper, Miss E., Lace work, 99.
Hooper, Mrs. G. W., Water color design, 95.
Hoopes, Ellen C., China, 87.
Hoopes & Townsend, Hardware, 27.
Hoover, H., & Co., Printing presses, 32.
Hope & Co., Engraving machine, 28.
Hope, Miss Mary, Table top, 100.
Hopkins, A. D., Wheat, 129.
Hopkins, C., Watch machinery, 32.
Hopkins, D. A., Journal boxes, 47.
Hopkins, Florence J., Ferns in ink, 95.
Horn, W. H., & Bro., Tools, etc., 110.
Horstmans Bros., Belting, 64.
Horticultural Society, Review, 137.
Horton, Crary, & Co., Leather, 112.
Horton, E., Son, & Co., Lathe, 24.
Horton, G. B., & Co., Leather, 113.
Hosmer, Miss H., Marble work, 101.
Hotchkiss, James, Brick machine, 26.
Houghton, R. J., Boiler, 34.
House & Davidson, Doors, 124.
Houssein Bey, Mrs., Embroidered cover, 101.
Houston, Smith, & Co., Door mortiser, 22.
Hovey, W. M., Minerals, 126.
How, G. C., Slippers, 108.
How, M., Shoes, 108.
Howard, George C., Machines, etc., 23, 29, 30, 32, 38, 42.
Howard Iron Works, Wheel, 24; Cutter, 25.
Howard, J. W. & A. P., & Co., Leather, 112
Howard Manufacturing Co., Machines, 22.
Howard Safety Boiler M'f'g Co., Boiler, 34.
Howard, Wm. H., Loom frame, 24.
Howe, H., Injector, 45.
Howe Machine Co., Machines, 30, 111.
Howell & Bros., Paper machines, 32.
Howell, J., & Co., Leather, 113.
Howell, T. P., & Co., Leather, 115.
Howes, Babcock, & Co., Brush machine, 48.
Howland, W. P., Mangles, 31.
Howobin, W. T., Rollers, 36.
Hoyt, Andrew J., Steam hammer, 26.
Hoyt Bros., Leather, 113.
Hoyt, J. B., Furnace, 35; Belting, 38, 53; Leather, 113.
Hubbard & Aller, Steam pumps, 40.
Hubbard, Mabel G., Charcoal sketch, 95.
Hubbard & North, Leather, 113.
Hubbard, S. D., Steam pump, 40.
Huber & McCarter, Meat chopper, 50.
Hudson, J. & D., Coal, etc., 127.
Hudson, Mrs. M. A., Point lace, 98.
Huffer, A., Vacuum pump, 41.
Huffman, W., Limestone, 124.
Hufner, R., Leather, 116.
Huhn, Heinr., & Co., Needles, 62.
Hull & Belden Co., Hammer, 23; Machine, 31.
Hull, Mrs. H. M., Picture, 100.
Hummel, G. W., & Co., Leather, 115.
Humphreys, A. R., Mineral water, 128.
Humphreys, Miss L. B., Drawing, 96.
Hunkins, Mrs. D. Grace, Rolling pin, 87.
Hunt, C. W., Machine for unloading, 17.
Hunt, Mrs. Chas. S., Photographs, 96.
Huntley, Halcomb, & Hine, Bolting cloth, 48.
Hurd, F., & Co., Shovel, 54; Compressor, 55.
Hurkamp, J. G., Sumac, 112.
Hurst, J. R., Sandstone, 123.
Husquarna Arms Manufacturing Co., 66.
Hussey, C. A., Engines, 37.
Huston, Mrs. A. B., Embroidered motto, 89; Mantel, 91; Carved frame, 92.
Hutchinson, T. C., Anchor, 52.
Huy, L. M., Interlacings, 101.
Hyde Bros. & Swift, Oils, 105.
Hydrostatic and Hydraulic Co., Pumps, 41.
Hyneman, I., Excavating pump, 40.
Hyslop, John, jr., Tack machine, 22.

I.

Illera y Maruz, M., Programme, 132.
Imperial Manufacturing Co., Gas machines, 19.
Imperial Technical School, Steam engine, 70.
Improved Steiner Gas Machine Co., 19.
Inesley, Susan V., Iron stand, 87.
Ingersoll & Balston, Cotton press, 28.
Ingersoll Rock Drill Co., Machine, 17.
Ingham, J., & Sons, Shuttles, 54.
Ingraham & Beard, Scourer, 49.
Iñiguez, B., Music, 138.
Inman Steamship Co., Model, 56.
Innes, A., Leather, 113.
Inspection General of Public Works, 141.
Inspection of Woods and Forests, 140, 141.
Institute for the Deaf and Dumb, 132.
Institute of Secondary Instruction, 133, 138, 139, 140, 157.
Inzenga, J., Music, 138.
Iowa College for the Blind, Fancy work, 90.
Ipanema Iron Works, Tools, 68.
Isabella II., Photographs, 138.
Isæus & Jacobsson, School house, 144.
Iscar, F., Cork, 140.
Israel Bros., Grindstone, 62.
Itamaraty, Viscountess de, Pin case, 102.

J.

Jackson, E., Model, 141.
Jackson, J. L., Steering apparatus, 50.
Jacob, Ch. Moise, Cushions, 61.
Jacobina, T. D., Tapestry work, 102.
Jacquemin, Mrs. E. F., Artificial flowers, 90.
Jaeger, G. L., Pasting machine, 33.

Jaen, Chief Engineer of, Wood, 140.
James, B., Spools for silk, 29.
James, Mrs. J. A., Paintings, 99
James, Mary J., Painting, 95; Chess table, 87.
James, Mrs. T. P., Memorial, 91.
Jamison, S. S., Water injector, 40.
Jamison, S. W., Boot & Shoe Crimping Machine Co., Machine, 111.
Janvier, Mary R., Curiosities, 91, 98.
Jardine, Mrs. E., Point and net lace, 99.
Jarecki Manufacturing Co., Brass work, 45.
Jareño de Alarcon, F., Models, 134.
Jasper, G. F., Heater and filter, 40.
Jay, Miss E. C., Stamp moistener, 90.
Jeffery, T. B., Engines, 37.
Jeffries, J., & Sons, Locomotive, etc., 48.
Jenckes, E., & Co., Ring travelers, 29.
Jenkins Bros. & Co., Shanks, 106.
Jenkins, Lane, & Sons, Shoes, 107.
Jenkins, Mrs. R. E., Shoes, 90.
Jenkins, Staylor, & Co., Leather, 113.
Jenkins, T. A., Rear Admiral U.S.N., 72.
Jenkins, Wm. H., & Co., Feeder, etc., 39.
Jenks, A. S., Bits, 109.
Jeremias, T., Tissue paper flowers, 97.
Jerome, W. R., Motor, 37.
Jersey City Iron Works, Frogs, 48.
Jersey City Wheel Foundry & Machine Works, Car wheels, 48.
Jessop, Mrs. Henry, Honiton lace, 89.
Jesus Maria, Convent of, Plan, 99.
Jewell, P., & Sons, Belting, 38.
Jewett & Keating, Leather, 114.
Joes, Mrs. Arthur C., Miniatures, 94.
Johns, H. W., Asbestos, 36; Felting, 53.
Johnson, C. E., Paper feeding machine, 33.
Johnson, Chas. E., & Co., Railway car, 46.
Johnson, Clark, & Co., Sewing machines, 30.
Johnson, D. D., Fire clay, 127; Timber, 128; Tobacco, 130.
Johnson, H. C., Ship model, 51.
Johnson, H. H., Maps, 128.
Johnson, J. F., Ores, 126; Woods, 129.
Johnson, L., & Co., Slippers, 108.
Johnson, Misses H. & M., Carvings, 91, 92.
Johnson, N. M., Boots, 106.
Johnson, W., Lathe chuck, 28.
Joint Stock Society for the Manufacture of Machines and Tools, 64.
Joliet, Convent of, Plan of institution, 99.
Joliot, S., Car brakes, 61.
Jones, Anna S., Tatted cushion cover, 88.
Jones, C. C., Pump, 58.
Jones, Mrs. D. S., Afghan, 90.
Jones, Frederick, & Co., Shoes, 107.
Jones & Holmes, Elevators, 43.
Jones, J. McA., Boat apparatus, 50.
Jones, Lamson, & Co., Lathes, 24.
Jones & Laughlin, Pulleys, 53.
Jones & Laughlins, Iron, 38.
Jones, Mrs. M. A., Clothing, 88.
Jones, W., & Co., Leather, 115.
Jönsfon, H., Fancy articles, 100.
Jorba, J., Piano attachment, 138.
Jordan, Miss Laura B., Cabinet, 92.
Jordana y Morera, R., Work on forests, 141.
Jover y Puig, Antonio, Books, 137.
Judkins, Miss E. M., Paintings, 97.
Juliá y Garcia, Eusebio, Photographs, 139.
Jullien & Jennar, Axle, etc., 64.
Juncal, Benito, Treatise, 135.
Justh, E. L., Shoes, 108.

K.

Kacy, Robert F., Fan blower, 23.
Kafer & De Lacy, Heater, 112.
Kafka, H., Architect, 131, 143, 144, 145.
Kahlke & Detlefsen, Machine, 62.
Kahnweiler, D., Cork jacket, 51.
Kampmann, Mrs. L., Hair work, 97.
Kanawha Salt Co., Brines, etc., 127, 128.
Kanawha Semi-Cannel Coal Co., Coal, 127.
Karr, E. F., Architect, 150.
Karr, Wm., Harness, 110.
Karrer, J. & A., Leather, 115.
Kasson, C. Valette, Continuous rail, etc., 48.
Katzenstein, L., & Co., Metallic packing, 39.
Kaumanus, F. H., Leather, 116.
Kay, Helena de, Painting, 94; Drawings, 95.
Keen & Coates, Leather, 112.
Keene Bros., Shoes, 106.
Keep, Mrs. John R., Painting, 93.
Keesey, I. B., Laurel root, 130.
Kelim, C., Handkerchief, 101.
Kelley, Miss Lina, Pincushion cover, 89.
Kelley & Moore, Shoes, 107.
Kelley, W. E., Boiler, 35, 52; Steam pumps, 40.
Kellogg, Mrs. D. G. M., Hosiery, 88.
Kelsey, Phœbe M., Meat tenderer, 87.
Kelsey, W. A., & Co., Printing presses, 32.
Kemper, Mrs. Theodore, Tray, 92.
Kennedy, De Lancy, Punching machine, 25.
Kennedy, W., & Son, Planer, 57; Water wheel, 58.
Kenny & McPartland, Shoes, 106.
Kent, E. E., & Co., Boots, 106.
Kent, Miss, Painting, 100.
Kenyon, J. A., & Co., Leather, 113.
Kenyon, J. H., Meat choppers, 50.
Kerfoot, Annie, Paintings, 94.
Kerper, H., Leather, 113.
Kerr, N. M., & Co., Paper boxes, 33.
Kesiah, M., Indian work, 90.
Kessler & Bro., Harness, 110.
Kessler, H., Leather, 114.
Keyser, Mrs. E., Clothing, 88.
Keystone Portable Forge Co., Forges, 23, 52.
Kidd, Mrs. N. R., Flower stand, 92.
Kiefer, Stiefel, & Co., Leather, 114.
Kiehle, R., Sewing machines, 62.
Kilsheimer, F., Boots, 106.
Kimball & Morton, Sewing machines, 55.
Kimberley, N. G., Mills, 54.
King, C. W., Force pumps, 41.
King, F. L., Steam engines, 55.
King, G., & Co., Cork, 140.
King, Mrs. Henry, Shawl, 89.
King, Wm. H., Soap press, 18.
Kingwood Gas Coal & Iron Co., 126.
Kinley, A., Leather, 113.
Kirk, G. R., Lubricator, 44.
Kirkpatrick, Kinzey, & Co., Leather, 113.
Kitson Machine Co., Cotton openers, 28.
Klautsheck, Thomas, & Stuart, Glass, 147.
Klein, C. C., Engine, 37.
Kline, Aaron K., Governor, 39; Coupling, 46.
Klinghammar, T., Flowers, 100.
Klippart, Josephine, Painting, 95.
Knapp Dovetailing Machine Co., 22.
Knauff, T. C., Organs, 119.
Kneass, N. B., jr., Music press, 32.
Knees, C., Patterns, 106.
Knickerbocker Ice Co., Ice tools, 45.
Knight, E. H., Wrench, 27.
Knolt, K., Car, 58.
Knowles & Bro., Looms, 28.
Knowles Steam Pump Works, 53.
Knowlton & Dolan, Water wheel, 36.
Knowlton, Helen M., Painting, 94.
Knowlton, John L., Saws, 19.
Knox, D., Machines, 111.
Kockum Machine M'f'g. Co., Models, 66.
Koenigsberg, J., Model of oven, 18.
Kohn, Jacob, Wines, 123.
Kohn, Miss A., Album, 90.
Komaroff, N., Sheep-skins, 116.
Koontz, G., Corn, 129.
Koorikoff, P., Leather, 116.
Köpings Machine Manuf'g Co., 66.
Korne & Currie, Harness, 110.
Kreider, Campbell, & Co., Paint mill, 17; Engine lathe, 24; Engine, 35; Mills, 49.
Krippendorf & Hart, Shoes, 107.
Kristinehamm Machine M'f'g Co., 66.
Krom, S. R., Ore crushers, 17.

Krumbhaar, A., Files and rasps, 27.
Krupp, Fried., Ores, weapons, 63.
Kuenhold, F. B., Hardware, 109.
Kuh, S., Straw twister, 29.
Kurtz, H. I., Lithographs, 32.
Kyle, H., Woods, 128.

L.

Lachaume, J., Architect, 149.
Lachine, Convent of, Plan, 99.
Ladd, Miss Gertie, Book frame, 87; Music, 90.
Ladd, Miss Marion, Manuscript, 91.
Ladies Centennial Committee, Worcester, Wood carvings, 93; Paintings, 95.
Ladies of Immanuel Church, Needlework, 88.
Ladies' Seminary of Madrid, Work, 132.
Lafferty, H. W. & R., Sugar drainer, 49.
Lafler, J. A., Brick-making machine, 26.
La France M'f'g. Co., Pumps and engine, 41.
Lagowitz, J., & Co., Trunks, 109.
Lahaye, J. J., Car couplings, 46.
Laidley, J. B., Sandstone, etc., 127.
Laidley, T. T. S., Ordnance corps, U.S.A., 73.
Laird, Schober, & Mitchell, Shoes, 107.
Lalance & Grosjean Manf'g. Co., Fountains, 44.
Lamana y Gonzalez, S., Indicator, 138.
Lambert, P. W., & Co., Leather goods, 109.
Lamb Knitting Machine Manf'g Co., 30.
Lamm, J., Fire extinguisher, 43.
Lammertz, L., Needles, 62.
Lamos, Architect, 143.
Lampert, H., Machine, 111; Leather, 114.
Lancaster Furnace & Mining Co., Ore, 126.
Lancaster, W., Loom, 54.
Landis, Mrs. D. C., Pastel painting, 95.
Lane Bros., Motor, 39.
Lane & Bodley, Mortisers, 19; Saw mill, 22.
Lane Manufacturing Co., Saw mills, 20, 36.
Lane, Miss S. M., Painting, 94.
Lang, A. J., Cement, etc., 127.
Lang, W. Bailey, & Co., Tires, 47.
Lang & Wanner, Leather, 114.
Lange & Co., Hose, 70.
Lanham, G., Sandstone, etc., 127.
Lanham, Zadock, Limestone, 127.
Lansing, H. S., Gate, 48; Railroad gate, 53.
Lapham, H. G., Leather, 113.
Lapham, Smibert, & Co., Leather, 113.
Lapierre, Z., Boats, 59.
Lappe & Hax, Leather, 114.
Lappe, J. C., Leather, 114.
La Quintinie, A., & Co., Tools, 60.
Larkum, Mrs. Edward, Tidy, 89.
Larlwig & Batten, Freezer, 45.
Larned, Ellen D., History, 91.
Larrabee, E., & Sons, Leather, 115.
Lasala Martinez, A., Book, 133.
Lascole, A., Apparatus, 60.
Lathrop Anti Frictionate Co., Sewing machine, 31; Lubricator, etc., 39.
Lattimon, D. I., Suction fan, 22.
Laumonier, Mrs. C., Traveling bag, 90.
Laurence, Benjamin, Milling machine, 23.
Laurent, J., & Co., Photograph, 139.
Lavers, A. H., Cement tester, 54.
Lawlor, J. D., Sewing machines, 57.
Lawrence & Co., Refrigerators, 56.
Lawrence, Frank, Cupola, 23.
Lawrence, J. H., Leather, 114.
Lawrence, W. H., Oil cans, 53.
Laws, Miss Lizzie T., Flower stand, 92.
Lawson, P., Roving can, 28.
Lawson, S., & Sons, Machinery, 55.
Leão, A. C. de, Pillow shams, 101.
Leão, M. de, Interlacings, 101.
Leas & McVitty, Leather, 112.
Leas, Wm. B., Leather, 112.
Leavitt, Miss H. J., Crayon, 96.
Lebanon Manufacturing Co., Coal cars, 46.
Le Bas, Clutch, 61.
Lecerf, L., Materials, 60.
Ledgerwood M'f'g. Co., Engine, 52.
Lee, W. C., Leather, 113.
Leffel, J., & Co., Water wheel, 36.
Legat, D., Machines, 60.
Legrand, A., Sleepers, etc., 64.
Leguina, E., Book, 136.
Leh, H., & Co., Boots, 106.
Lehman, Architect, 131.
Lehman, B. E., Gauge-cocks, etc., 39.
Leigerot, Mrs. Marie, Thread lace, 88.
Leigh, W., Corn, 129.
Lejeune, Machine, 61.
Leme, R. P., Flowers, 102.
Lemus, Eugenio, Engraving, 139.
Lent, A. E., Printing press, 32.
Leonard, F. L. J., Railway brakes, etc., 64.
Leonard, Miss Louise, Lace ends, 88.
Leonard & Silliman, Mill spindle, 29; Elevator, 43; Mills, 49.
Leonard, T. M., Oil cups, 40.
Leon Mainez, Ramon, Review, 137.
Le Page, W. N., Force pumps, 40.
Lerida, Board of Instruction of, Books, 136.
Lerner, H., Bromine, 128.
Leroy, F., Models, 60.
Lesjofors Iron & Steel Co., Cables, 66.
Lesser, G., Steam cylinder, etc., 70.
Lessner, G., Driller, 69.
Letterman, W. H., Coal, 127, 129.
Le Van, W. B., Engine governors, 40.
Levi & Berg, Blacking, 105.
Lewis, F., & Co., Ores, 126.
Lewis, J. D., Coal, 127.
Lewis, R. E., Machine, 110.
Lewis, R. S., Iron, etc., 31.
Lewiston Coal Co., Coal, 127.
Lewistown Brass & Engine Co., 37, 45.
Liarsky, N., Road roller, 70.
Libotte, N., Cages, 64.
Lienard, Colonel, Georama, 130.
Liggett, Miss C. S., Engraved cards, 96.
Lighthouse, J. C., Horse collars, etc., 110.
Lilly, J., & Co., Printing presses, 55.
Lilly, Young, Pratt, & Brackett, Shoes, 107.
Lilpop, Rau, & Lovenstein, Steam engine, 70.
Limet-Lapareille & Co., Files, 60.
Linderman, Mrs. Sophia, Paintings, 93.
Lindlaw, J. E., Fire escape, 43.
Lion & Guichard, Manometer, 61.
Lippincott, C., & Co., Soda water apparatus, 44.
Literary University, Books, 133, 134.
Little, Miss, Lace, 89.
Livingstone, L. M., Tailors' system, 88.
Llacayo, A., Books, 136.
Lladós y Ruis, Magin, Periodical, 137.
Llerens Bros., Dictionaries, 137.
Llorente y Lázaro, R., Compendium, 134.
Loag, S., Designs, etc., 32.
Lobdell Car Wheel Co., Machine, 24; Iron rolls, 29; Engines, 37, 47.
Local Institute of Secondary Instruction, 133.
Locher & Atkinson, Morocco, 116.
Lockwood, F. A., Machine, 111.
Lockwood, Minnie S., Water color, 95; Illumination, 98.
Lockwood, W. E. & E. D., Machine, 34.
Loeb & Bros., Calfskins, 114
Loeff, P., Model brick kiln, 62.
Logan, J. M., Model boat, 56.
Logette, A. Y., Clasps, 61.
Loiseau, E. F., Pressed fuel, 132.
Loke, Mrs. C., Footstool, etc., 100.
Loma y Corradi, Blas de, Reviews, 137.
Lonergan & McBride, Lubricators, 40.
Long, Allstater, & Co., Machines, 24.
Long, D., & Co., Pipes, etc., 45.
Long, F., Leather, 116.
Long, J., & Co., Power looms, 28.
Longdale Coal & Iron Co., Coal, 127.
Loomis, E., Crayon drawings, 96.
Loomis, Eurilda, Painting, 94.
Lopez, Almagro A., Method, 134.
Lopez, E., Flower stand, 102.

Lopez, Fabra Francisco, Book, 137.
Lopez, J. F., Handkerchief, 101.
Lopez Seoane, V., Woods, 140.
Lopez Valdemoro Ortiz de Lazcano, Crayon, 139.
Lopez y Gomez, S., Book, 138.
Lorchetes, A., Steganographic apparatus, 70.
Lordly, Howe, & Co., Turning lathe, 57.
Loscos, F., Herbarium, 133.
Lotz, F., Machinery, 62.
Lounds, Carrie A., Crayon, 96.
Lovegrove & Co., Machine, 24; Boilers, 35; Engine, 37.
Lovejoy, Mrs. C. P., Fern leaves, 98.
Lovejoy, Mrs. Perley R., Handkerchief, 89.
Lovering, Mrs. Abigail F., Mittens, 88.
Lowe & Watson, Boiler, 34, 52.
Lowell School of Design, Designs, 97.
Lowell Schools of Drawing and Design, Photographs, 97; Decorations, 98.
Lowell, Women's Centennial Committee of, Hosiery, 88.
Loyzaga & Co., Newspapers, 141.
Lozano de Vilches, E., Books, 136.
Lozano y Escobar, R., Sumac, 140.
Lozano y Villarejo, Mateo, Album, 139.
Lucas, Mrs. Mary, Handkerchief, 88.
Luce, Miss Caroline, Honiton lace, 88.
Luciro Gonzalez, J., Works, 133.
Ludlow Valve Manufacturing Co., 45.
Ludy, C., & Sons, Calfskins, 114.
Lugo Provincial Deputation, Map, 138.
Lugo Provincial Institute, Woods, 140.
Lukens, J. H., Railway switch stand, 48.
Lunkenheimer, F., Lubricators, 45.
Luther, Miss M. M., Painted photograph, 96.
Luther, Mrs. B. J., Mosses, 98.
Luz, F. F. da, Embroidery, 101.
Lyall, J. & W., Motion looms, 29.
Lyford, Col. S. C., Ordnance corps, 72.
Lyman, Miss Abby, Water colors, 95.
Lyman, W., Rowing gear, 50.
Lynch, A., Harness, 110.
Lynde, J. D., Boiler, 35; Engine, 37; Governors, etc., 39.

M.

Maas, Albert W. M., Model, 26.
Mabille, Valére, Railway plant, 64.
Macabies, Feeder, 61.
Macarthy, J., Bran picker, 49.
Macdaniel, Miss F. L., Pressed flowers, 97.
Macdermott, M., Perforators, 54.
Macdonald, Dr. C. F., U. S. P. O. Dept., 72.
Machine Co., Bowmanville, Machines, 57.
Mackellar, Smiths, & Jordan, Machinery, 33.
Mackenzie, D., Reader, 54.
Maclachlan, Hopkins, & Co., Machine, 32.
Maclay, J. W., Water meter, 43.
Madrid Academy of Medicine, Book, 135.
Madrid Academy of Physical and Moral Sciences, Publications, 135.
Madrid, Arsenal of, Military works, 134.
Madrid, Corporation of Mountain Engineers, Resins, 141.
Madrid, Corps of Forest Engineers, Woods, 140.
Madrid, Corps of Military Engineers, 138.
Madrid, Direction General of Cavalry, 136.
Madrid Institute of Instruction, 132.
Maffei, E., Mineral bibliography, 136.
Magaz, J., Treatise, 134.
Magza y Jaime, J., Treatise, 133.
Maigrou, F. A., Machine, 60.
Makaroff, T. R. N., Safety mats, 70.
Maldine, H., Siphons, etc., 61.
Maldonado Macanaz, J., Book, 134.
Malleable Iron Fittings Co., Gas fittings, 23.
Mallory, W. H., Yacht, 51.
Manes, James, sr., Furnace, 18.
Mangin, F. H., Child's dress, 101.
Manheim, Wm., Harness loops, etc., 110.
Manila Municipal Athenæum, 141.
Manila Municipal School for Girls, 141.
Mann, M., Limestone, 127.
Mann, W. H., Paging machine, 32.
Manning, R., Winker plates, 109.
Mansfield Elastic Frog Co., Frogs, 48.
Mapleton Tannery, Leather, 112.
Maraini, Madame A., Marble busts, 100.
Mardorf, C., Leather, 114.
Marengo, J. & A., Cigarette machine, 59.
Marichalar, A. y M., History, 136.
Mariezcurrena, Heribert, Photographs, 139.
Marin Baldo, José, Plan, 139.
Marquand, Miss Laura M., China, 95.
Marquis, F. H., Ship models, 59.
Marrs, J., Oats, 129.
Marsh, Mrs. Charles P., Embroidery, 88.
Marshall, C., Medical cabinet, 90.
Marshall, Son, & Co., Machinery, 33.
Marshall, T. J., & Co., Dandy rolls, etc., 55.
Marston, J. M., Sawing machines, 20.
Martin, A. B., & Co., Leather, 116.
Martin, C., Anchors, 56.
Martin Carnes, E., Woods, 140.
Martin, Celestin, Looms, etc., 64.
Martin, Charles, Steam engine, 58.
Martin, Mrs. E., Painting, 97.
Martin, Henry, Brick machine, 26.
Martin, Mrs. J. H., Flowers, 90.
Martin & Riedle, Leather, 114.
Martin, Mrs. S. L., Panels, 93.
Martin, T. J., Cards, 64.
Martinez Acubillia, I., Book, 136.
Martinez Aleson, T., Book, 136.
Martinez Anguiano, Pedro, Works, 135.
Martinez Cubells, E., Geometry, 132.
Martinez Espinosa, Juan, Engravings, 139.
Marzo y Feo E., Method, 134.
Masa y Sanguineti, José, Books, 137.
Maslin, T., Corn, 129.
Mason, John L., Tuyere, 23.
Mason, J. S., & Co., Blacking, 105.
Mason Machine Works, Locomotive, 46.
Mason, Volney W., & Co., Pulleys, 38; Elevator, 42.
Maspons y Labrós, Francisco, Books, 137.
Massachusetts educational exhibit, 96.
Massachusetts State Com'n, Water craft, 51.
Massachusetts State Normal Art School, Casts, 91.
Massachusetts, Women's Centennial Committee of, Books, 91.
Massat, A., Publication, 136.
Massey, B. & S., Hammers, 54.
Mast, P. P., & Co., Boiler, 53.
Master of San Juan, Treatise, 133.
Mast Maker's Shop, Models, 70.
Mata, M. de la, Method, 134.
Mata y Fontanet, P., Books, 133, 136.
Matallana, Mariano, Manual, 137.
Mateu, José Maria, Plates, 139.
Mathieu, Charles, Glass steam engine, 26.
Matta, C. A. da, Tapestry work, 101.
Matthewman & Johnson Pump Co., 41.
Matthews, J., Soda water apparatus, 44.
Maura, Bartolome, Engraving, 139.
Maurice, Widow, & Guenin, Machines, 61.
Mauser & Haid, Stone, 123.
Mawhinney, H. H., & Co., Shoes, 108.
Maxim, Nellie, Panel, 93.
May, Withey, & Drake, Machine, 111.
Mayer & Stern, Shoes, 107.
Maynard, Ely, & Roso, Leather, 113, 114.
Mazen, Mrs. E. M., Paintings, 99.
McCaffrey & Bro., Files and rasps, 27.
McCarthy, Miss Eva, Piano cover, 89.
McCloskey, J., Sewing machines, 31.
McCloskey, Miss Lizzie, Wall pocket, 92.
McCollum, L. A., Cracker machine, 50.
McConn, J., Radiators, 35.
McCreery, W., Ore, 126, 129.
McCutchen, J. F., Engine, 37.
McDermott, J., & Co., Stone, 123.
McDonald Mrs. de B., Gobelin tapestry, 99.

McDowell, Miss W. H., Gothic stand, 92.
McFadden, P., Harness, 110.
McFarlane, Thum, & Co., Drill, 57.
McGilvery, S. W., Ship model, 50.
McGreggor, Dr., Petroleum, 126; Book, 128.
McIlhenny, George A., Door for gas retorts, 18.
McKay, A., Boiler, 58.
McKay Sewing Machine Association, 111.
McKechnie & Bertrand, Machines, 57.
McKee, Fuller, & Co., Car wheels, 47.
McKeough, J. W., Dome, 58.
McKinstry & Childs, Leather, 113.
McKnight & Rohrer, Handles, 129.
McLaughlin, Grover, & Lloyd, Dies, etc., 111.
McLaughlin, Miss M. L., Bust, 91; Cabinet, 93; Painted panels, 94; Decorations, 95.
McLean, J. L., Minerals, 126.
McLean & Bennor Brick Machine Co., 21.
McMechen, S. A., Iron ores, 126.
McNab & Harlin Mfg. Co., Valves, etc., 40.
McNabb, M., Car coupler, 58.
McNair, Linda H., Book mark, 90.
McNally, W. G., Ohio coat of arms, 123.
McNeal & Black, Leather, 112.
McNeal, R., Corn, 129.
McNeely & Co., Leather, 116.
McNeil, G., Heater, 52.
McPherren, H. E., Wax cross, 97.
McPherson, J., Mineral water, 128.
McShane, Henry, & Co., Bells, 39.
Mechanical Card Factory, Cards, 62.
Mechanics' Athenæum, Rules, 134.
Mecutchen, J. G., Smutter, 49.
Medinaceli, Duchess, Resin wood, 140.
Medina & Navarro, Books, 136.
Meeker, D. M., & Sons, Cylinder, 37.
Megy, Echeverria, & Bazan, Elevators, 61.
Meiners, C., & Sons, Saw mill, 22.
Meissner, J. H., Grates, 34.
Melian, J., Wood, 140.
Melville, A. W., Iron ore, 126.
Melvin & McMorris, Artesian well, 17.
Mencha y Rodriguez, Faustino, Figure, 139.
Mendenhall, U., Minerals, 126.
Menendez & Pintado, Album, 133.
Menon, Mrs. M., Pupils' work, 100.
Menzies, Miss R. N., Bracket, 92.
Mercantile Athenæum, Madrid, Books, 135.
Merchant & Co., Tubes, etc., 45.
Merckell, Mrs. J. H., Furs, 90.
Meredith, Hon. Mrs., Painting, 100.
Meredith, Mrs. L. P., Decorated china, 95.
Merrill, Chas., & Sons, Drop hammer, 23.
Merrill & Keizer, Gauge cocks, 44.
Merrill, Miss Susie, Flower stand, 92.
Merriman, A. H., Punching press, 24.
Merritt, A., Boat, 59.
Merritt, Daniel S., Punch for metals, 25.
Merritt, Mrs. Jane E., Cape, 88.
Mervine, Samuel P., jr., Gas regulator, 19.
Meseguer, Manuel, Books, 135.
Messick, Mrs., Ornamental writing, 96.
Mestre, A. de, Machines, 61.
Mestres, José O., Monuments, 139.
Mestrezall, W., Board, 129.
Metallic Art Works, Bronze castings, 40.
Metcalf, Miss Flora, Shield, 92.
Metz, Geo. W., & Sons, Bellows, 23.
Meyer, C. A., Boots, 107.
Meyer, E., Kid, 116.
Meyer, F. W. A., Drawing, 58, 59.
Meyer, H. C., & Co., Hydrants, faucets, 44.
Meyer, R., Buckskin, 115.
Meyers, F., Scales, 46.
Michel, A. M., Leather, etc., 114.
Michelot, jr., Stands and cases, 61.
Mick, W., Hose, 70.
Middleton, John W., Iron, 22.
Middleton, N. & A., & Co., Car springs, 47.
Midvale Steel Works, Steel, 22; Rails, 47.
Mignon & Rouart, Motors, 60.
Miiek, B., Straps, 70.
Mikhailoff, A., Sable, 116.
Mila y Fontanal, Manuel, Book, 137.
Miles, G. W., Boat, 50.
Miles, W. A., Car wheels, 47.
Military Archives of Rio de Janeiro, Arms, 68.
Mill Creek Cannel Coal Co., Coal, 127.
Millar, W. C., Wheat, 129.
Miller, C. B., Steam generator, 35; Boiler, 52.
Miller Flanges Co., Flanges, 58.
Miller, F., Son, & Co., Oils, 105.
Miller, G., Ores, 126.
Miller, H. G., Specimens of printing, 90.
Miller, J. H., Sandstone, 127; Woods, 129.
Miller, J. & J., & Co., Leather, 115.
Miller, L. C., Architect, 130.
Miller, McCullogh, & Ober, Boots, 106.
Miller, Samuel P., & Sons, Brick machines, 26.
Miller, T. L., Machines, 112.
Miller, W. P., Lubricant, 40.
Miller's Falls Co., Scroll saw, 24.
Mills, T., & Bro., Freezer, 45; Tools, 49.
Miltimore Car Axle Co., 47.
Minas Geraes, Province of, Tools, 68.
Mineral Society, Salamanca, Memoir, 135.
Mingote, P., Geography, 133.
Miralles & Peris, Plan, 133.
Mirlees, Tait, & Watson, Sugar mills, etc., 56.
Miró, Juan, Jarez de la Frontera, Books, 137.
Miró, O., Crochet lace, 101.
Misericordia School of Rio de Janeiro, Embroidery, 101.
Mitchell, Mrs. Carrie, Furniture, 87.
Mitchell, J. E., Grindstones, 23; Blocks, 110.
Mitchell, J. H., Grindstone boxes, 25; Engines, 37; Deck pump, 41; Grater, 49.
Mitchell, Mrs., Gum, 100.
Mitchell, Miss M. A., Leather work, 99.
Mitchell, Mrs. Nellie D., Painting, 95.
Mitchell, R., & Co., Bending machine, 57.
Mitchell & Teeple, Sawing machine, 57.
Moffat, D., & Co., Leather, 114.
Mohawk & Hudson M'f'g Co., Valves, 44.
Molano, P., Cork, 140.
Molinero, Enrique, 132.
Molinos del Duero, Corporation of, 140.
Monasterio, M., Work on construction, 136.
Moncrieff, I., Gauges, steam boiler, 55.
Mondollot, A., Siphons, etc., 61.
Mondria, Mariano, Works, 135.
Monitor Coal Cutter Co., 17.
Monk, C., Iron moulders' tools, 27.
Monks, Mary E., Painting, 94.
Monongahela Gas Coal Co., 127.
Monreal y Ascaso, B., Geography, 132.
Monroig, daughter of Ramon, Dye stuffs, 140.
Montani, Pierre, Architect, 143.
Montells y Nadal, J., Books, 132.
Montenegro, P. L., Cork, 140.
Montero, A., Books, 132.
Montgomery, R. M., Sandstone, 123.
Mooney, W. W. & J. E., Leather, 115.
Moore, Miss A. G., Flower stand, 92.
Moore, R., Stove, 141.
Moore, T., Horse collars, 110.
Moore, W. B., Shoes, 106.
Moorhouse, R. O., & Co., Engine, 37.
Moragas, Manuel Gracia, Photograph, 139.
Morand, Augustus, Brick machine, 21.
Morane, jr., Press, 61.
Mordecai, Miss Rosa, Parasol cover, 89.
Moreau, L., Pumps, 64.
Moreley, E., Ship models, 59.
Moreno Villena, P., Treatise, 138.
Moreno y Espinosa, Compendium, 133.
Moreno y Roig, Book, 137.
Morgan & Dore, Shoes, 108.
Morrill, Hon. L. M., Sec. of Treasury, 72.
Morris, I. P., Co., Blowing engine, 42.
Morris, Mary Hay, Painting, 94.
Morris, Tasker, & Co., Machinery, 18; Tools, 44.
Morris, Wheeler, & Co., Nail machine, 22.
Morrison, D., Corn, 129.
Morrison, J., Gauges, 58.
Morrison, Mrs., Photographs, 100.
Morse, Eddy, & Co., Machines, 111.

Morse Twist Drill & Machine Co., 27.
Moseley, Jerome S., Scroll-saw machine, 20.
Moseman, C. M., & Bro., Harness, etc., 110.
Mosler, G. J., Ship wheel, 59.
Mosser & Keck, Leather, 113.
Mosser, W. F., & Co., Mill, 18; Wheel, 36.
Motala Iron & Steel Co., Engine, 65.
Mott, J. L., Iron Works, Fountain, 152.
Motts, G., Harness, 110.
Moulded Heel Stiffening Co., 108.
Mountain, Mrs. H. B., Mattress, 87.
Mowbray, G. M., Electric exploders, 17.
Mower & Bro., Shoes, 108.
Mower, E. W. & C. F., Shoes, 106.
Mower, F. B., Boots, 108.
Moy, T., Engines, etc., 55.
Moya, A., Arithmetic, 132.
Moyer, E. P., & Bros., Harness, 110.
Mudge Hook, Tooth, File, & Rasp Co., 27.
Mudge, W. R., Leather, 108.
Muenchmayer, H. & L., Minerals, 126; Wine, 130.
Muir, T., Car coupler, etc., 58.
Müller, C., Sewing machines, 62.
Muller, E., Vamps, 116.
Muller & Co., Safety fuse, 64.
Mungon Bros., Levers, etc., 48.
Muñoz Mendez, E., Seeds, 141.
Murillo, M., Report, 136.
Murphy, F., Ventilators, 42.
Murphy & Harle, Extinguisher, 58.
Murphy's Run Coal Mine, Coal, 127.
Murphy's, W. F., Sons, Machine, etc., 33.
Murray Iron Works Co., 37; Choppers, 50.
Murrill & Keizer, Regulator, 35.
Murtland, M. M., Flowers, 94; Crayon, 96.
Museum of Artillery, Madrid, Plates, 139.
Mussot, A., Wood-working machinery, 22.
Mutual Aid Society, Orense, Rules, 138.
Myers, S., & Son, Governor, 58.

N.

Napoleon, A. F., & Son, Photographs, 139.
Naranjo y Garza, F., Works, 138.
Nash, Mrs. F., Dagger plant ornaments, 99.
Nashua Iron & Steel Co., Axles, 47.
Nathan & Dreyfus, Oil cups, 53.
National Archæological Museum, Madrid, 138.
National Boot & Shoe Tip Co., 108.
National Calcography, Madrid, Cuts, 139.
National Car Spring Co., 47.
National Hat Pouncing Machine Co., 31.
National Institute for Deaf, Dumb, & Blind, 132.
National Leather Co., Leather, 115.
National Library of Madrid, 132.
National Meter Co., 42.
National Mint, Coins, 138; Photographs, 139.
National Mint, Machines, etc., 68.
National Needle Co., Needle machine, 32.
National Rubber Co., Shoes, hose, etc., 109.
National Suspender Co., Loom, 30.
National Tube Works Co., Pipes, etc., 44.
National Water Wheel Co., 36.
Natt, Phebe Davis, Painting, 93.
Natté, M., Flowers, 102.
Nautical School, Text books, 133.
Naval Museum, Models, 70.
Navaleno, Corporation of, Wood, 140.
Navarro Izquierdo, Luciano, Book, 135.
Navarro Reverter, Juan, Memoirs, 137.
Navy Arsenal, Models, etc., 68.
Navy Department U. S., 76, 78.
Navy Yard at Rio de Janeiro, Models, 68.
Naylor, J., Engines, 37.
Naylor & Jeffries, Carpet-rag looper, 29.
Neafie & Levy, Propeller wheels, etc., 39.
Nebreda y Lopez, C., Instruction, 132.
Needham & Kite, Filter press, 55.
Nelson, M., Printing machine, 33.
Nelson, N., Brake, 46.
Nelson, T., & Co., Water pipe, 57.
Nepper, E. & D., Leather, 114.
Netto, M. P., Robe de chambre, 101.
Neut, L., & Dumont, L., Pumps, 61.
Nevada, State of, Quartz mill, 17, 120.
Neves, F. Candido das, Stop cocks, 68.
Neves, I. S. das, Tapestry work, 101.
Neville, Mrs., Leather work, 99.
Nevin, Blanche, Models, 91.
Newbold, Richard S., & Son, Shear, 25.
New Brunswick Rubber Co., Boots, 109.
Newbury, A. & B., Printing press, 32.
Newbury, Miss R., Scent bags, 90.
Newcomb & Walker, Shoes, 106.
Newell, Miss Emma, Fruit plate, 92.
Newell, W. H., Injector valves, 40.
New England Co., Spooler, etc., 29.
New England Granite Co., Monument, 120.
Newkumet, Adam, Crucible, 26.
Newton, E. P., Machines, 110.
New York Belting & Packing Co., 39.
New York Leather M'f'g Co., 114.
New York Needle Co., Needles, 31.
New York Safety Steam Power Co., 37, 51.
Niagara Pump Works, Pump, 53.
Niagara Steam Pump Works, Engine, 38; Pump, 41.
Nicaise, C., & Co., & Gobert, A., Machine, 64.
Nichols, B. S., & Co., Steam fire engine, 43.
Nichols, G. H., & Co., Shoes, 108.
Nichols, Harris, & Walker, Acid pump, 40.
Nichols, Pickering, & Co., Rail punches, 24; Springs, 47.
Nichols, S. B., Fire engine, 53.
Nicholson File Co., Files, 27.
Nicholson, Martha A., Panels, 94.
Nickell, G. W., Minerals, 126.
Nilson, G., Jacks, 65.
Nittinger, A., jr., Butchers' machinery, 50.
Nobas, Narciso, Photographs, 139.
Noble, Charles, & Co., Stoves, 118.
Nonotuck Silk Co., Silk machinery, 28.
Noot, L., Laces, 89.
Normal School, Cadiz, Books, 134.
Norman, Miss, Lace work, 99.
Norris, W. R., Planing machine, 19.
Northam, C. Gussie, Water color, 94.
Northampton Emery Wheel Co., Wheel, 25.
Norwalk Iron Works, Pumps, 40, 53.
Notre Dame, Congregation of, Plan, 99.
Nourse, Mrs., Painting, 94.
Nourse, Mrs. C. S., Drawing, 96; Frame, 97.
Nourse, Mrs. J. E., Miniature, 94.
Novelty Gas Machine Co., Gas machine, 19.
Novelty Paper Box Co., Machines, 33.
Novoa y Lopez, A., Book, 134.
Noye, J. T., & Son, Mills, etc., 49.
Noyes, Frank G., Circular saws, 22.
Nueva Cáceres, Bishop of, Books, 141.
Nugen, J., Tobacco, 130.
Nunes, H. M., Cushion, 102.
Nuñez Robres, L., Music, 134.
Nunn, Mrs., Point lace, 99.
Nunn, W. C., Railway signals, 58.
Nussey & Leachman, Finishing machine, 55.
Nuttallberg Coal Co., Coal, 127.
Nye, Mrs. Clement D., Lace necktie, 88.
Nye, Gourlay, & Co., Steam pump, 41.
Nye, Miss Mary, Mats, 89.

O.

Oakley & Keating, Washing machine, 31.
Oakville Manufacturing Co., Pumps, 58.
Obradors y Font, S., Treatise, 136.
Observatory, Belen, Instruments, 138.
O'Callaghan, F. O., Skins, 115.
Ocon, E., Music, 138.
Odenheimer, Mrs. B., Painting, 94.
Oferrall, J., Books, 133.
O'Hara, C. M., Felting, 35, 53.
Ohio Falls Oak Leather Co., Leather, 112.
Ohio Stone Co., Stone, 123.
Old Colony Rivet Works, Iron planers, 24.

Oldenborgh, Mrs. M. J., Wax work, 100.
Oliveira, A. H. d', Cushion, 102.
Oliveira, M. de, Shawl, 101.
Oliver, F. H., Ship models, 59.
Oliver, J., Ship models, 59.
Oliver, S., jr., Shoes, 108.
Ollero, A. F., Geography, 134.
Olmstead, Miss Mamie, Painting, 95.
Olmstead, Mrs. Anna M., Paintings, 95.
Olson, Christine, Organ, 87.
O'Neal, Cheuvront, & Co., Tobacco, 130.
Oneida Steam Engine, Drill chucks, 25.
O'Neill, A., Pipe, 45; Iron pipe, 118.
Onis, F., Seed, 141.
Onis, J. de, Chronometer, 138.
Oppenheimer, J. D., Hair goods, 30.
Ordway & Clark, Boots, 108.
Origone, P., Design, etc., 67.
Ormsbee, M., Life preservers, 51.
Orphans' School of St. Thereza, Stole, 101.
Orum, M. L., Mandrels, 27.
Osborn, Miss H. Frances, Painting, 94.
Osborn, H. F., Saddlers' tools, 109.
Osborne, C. S., & Co., Tools, 110.
Osborne, F., jr., & Co., Leather, 115.
Osborne, H., Car axle, 58.
Osborne, J., Marble, 127.
Oscariz y Lasaga, Victor, Pamphlets, 135.
Oschbacher, J., & Son, Wine, 130.
Osenbruck & Co., Cigar moulds, 62.
Osgood, J. A., Metallic packing, 40.
O'Shea, A. J., Registering devices, 32.
Ossipoff, M., Tallow, 116.
Osterhout, W. H., Leather, 113.
Ostrand, H., Drawing, 66.
Ostrom Bros., Leather, 116.
Otis Bros. & Co., Engine, 38; Elevator, 43.
Overend, Rebecca C., Muff, 88.

P.

Pacific Guano Company, Guano, 151.
Pack, Miss Mary L., Cabinet, 92.
Packer, C. W., Cutting machines, 33.
Page, B. & P., Co., Belt, 53.
Page Belting Co., Belting, 38.
Page, E. R., Register, 133.
Page, E. W., Oars, 50.
Page, Mrs. Elizabeth M., Dirt catcher, 87.
Page, W. H., & Co., Wood type, 33.
Paget, Miss N., Needlework, 98.
Pählman, S., Embroidery, 100.
Paillet, Corks, 61.
Palacios, P., History, 136.
Palmer, Addie C., Ebony panels, 94.
Palmer, G. H., Army equipments, 109.
Palmer, Samuel R., Stave machine, 19.
Palmer, Miss H. M., Parasol cover, 98.
Palmer, Mrs. John S., Tidy, 89.
Palmer & Decker, Leather, 113.
Palmer European Pat. Tentering Co., 28.
Pancoast & Maule, Steam apparatus, 39.
Panero, M. M., Treatise, 136.
Paraná, Ladies of Province of, Bouquet, 102.
Parcels, T., Yacht, 51.
Paresi, E. G., Furnace, 67.
Park, Miss, Tatting and knitting, 99.
Parker, C., Vises, 27.
Parker, C. F., & Co., Shoes, 108.
Parker, Miss M. E., Lace shawl, 98.
Parkhill, Miss H. R., Ornaments, 90; Sea weeds, 98.
Parks, J. A., Printing presses, 32.
Parks & Woolson Machine Co., Machine, 29.
Parrott, Mrs. Natt., Pillow shams, 89.
Parrow, N. D., Mineral waters, 128.
Parshall, C. H., Lubricator, 39.
Pasaráns y Viñals de Pujol, Elisa, Books, 137.
Pascual, M. J., Scientific works, 136.
Pastor, P. H., Sons, Needles, 62.
Patent Forged Steel Spring Ring Co., 28.
Patent Water & Gas Pipe Co., Water pipe, 45.
Patrick, R., Pump, 58.
Patterson, C. R., Blocks, 21; Fan, 42.
Patterson, Mrs. S. C., Clock, 91.
Patton, J. Desha, Governor, 18.
Paul, J., & Co., Sandstone, 123.
Paul, Miss Kate, Painting, 93.
Paul, Mrs. C. F., Honiton collar, 88.
Paula Folch, Francisco, Books, 137.
Payne, B. W., & Sons, Engines, 35.
Paz Mosquera, M. de la, Map, 138.
Pearson, W., Machine, 31.
Pease, F. S., Pneumatic pump, 41; Oil, 52.
Pease, J. H., Historical chart, 45.
Peck, E. A., Crayons, 96.
Peck Bros., & Co., Brass cocks, etc., 45.
Peckert, C. D., & Co., Shoes, 108.
Peddie, T. B., & Co., Trunks, 109.
Peet Valve Co., Valves, 44.
Peirce, M. P., Water wheel, 36.
Peirce Rotary Tubular Boiler Co., 35, 53.
Pelayo Briz, Francisco, Works, 137.
Pelouze, E., & Andouin, P., Condenser, 60.
Penneypacker, M., Hoisting machine, 42.
Penniman, Miss E. A., Paintings, 101.
Pennsylvania Comb'd Iron & Steel Ass'n, 38, 52.
Pennsylvania Diamond Drill Co., Drill, 17.
Pennsylvania Railroad Co., Locomotive, 46; Old locomotives and cars, 121.
Pennsylvania, State of, Educational, 146.
Pennsylvania Steel Co., Ingots, 48.
Pennsylvania Tack Works, Machines, 22.
Perales, B., Books, 132.
Pereda y Martinez, S. de, History, 132.
Pereira, F. C., Embroidery, 101.
Pereiro, Rey, Application of sulphur, 136.
Perez, A., & Co., Anis, 141.
Perez, J., Descriptive pamphlet, 136.
Perez M. Miguel, Mariano, Almanac, 135.
Perez, V. R., Treatise, 136.
Perisi, A., & Son, Mechanical invention, 67.
Perkins, Mrs. E. W., Bas-relief, 91.
Perkins, Fanny, Painting, 94.
Perley, Miss H. A., Point lace, 99.
Perojo, J. del, Review, 136.
Perreaux, L. G., Valves, 61.
Perret, M., Apparatus, 60.
Perry, E. L., Raft, 50.
Perry, F. H., & Co., Sole leather, 114.
Perry, Laura C., Slate panels, 94.
Pervoff, S., Leather, 116.
Peterkin, G. G., Minerals, 126.
Peters & Burger, Architects, 146.
Peters Calhoun Co., Harness, 109.
Peters, W. L., Photograph, 128; Paint, 128; Boards, 129.
Peterson, W. F., Woods, 128.
Pettit, Henry, Architect Machinery Hall, 9.
Peyton, G. L., & Co., Mineral water, 128.
Peytona Cannel Coal Co., Coal, 127.
Phelps, S. L., Crayon, 96.
Philadelphia Hydraulic Works, Pump, 53.
Phila., Reading, & Pottsville Tel. Co., 147.
Phila. & Reading R. R. Co., Locomotive, 46.
Philips, W. J., Telegraph, 147.
Phillips, C. C., Architect, 118.
Phillips, E. B., Marking in indelible ink, 95.
Phillips, E. F., Telegraph wire, 147.
Phillips, Mrs. Richmund L., Table, 87.
Phillips, S. R., Harness, etc., 110.
Phinney, S. C. & J. G., Counters, 107.
Pickering, J., Hoists, 54; Pumps, etc., 55.
Pickering, N. A., Clay, 127; Photograph, 128.
Pickering, T. R., Engine governors, 40.
Pierce, C. D., Well-boring machine, 17.
Pierce, Miss C., Needlework, 99.
Pierce, Mrs. M. R., Case, 90; Stands, 98.
Pierron & Dehaitre, Weaver, 60.
Pimentel, A., Pamphlets, 136.
Pimentel y Donaire, M., Books, 133.
Piper, T., Engine and gauge, 58.
Pirapitinga, Baroness de, Embroidery, 101.
Pitman, Miss Agnes, Carvings, 91, 92.
Pitman, Mrs. & Miss, Carvings, 91, 92.
Pitts, D. H., Armor, 58; Windlass, 59.

Plaisted, Miss Anna D., Sachet, 89.
Platt Bros. & Co., Gin, 54.
Platt, Wm. K., & Co., Fire extinguishers, 43.
Plumb, Burdict, & Barnard, Machines, 27.
Plummer, W. E., Machines, 111.
Pneumatic Dispatch Co., Tube, 42.
Poillon, C. & R., Yacht model, 51.
Pollock, Miss, Painting, 94.
Polytechnic College of Phila., Locomotive, 46.
Pool, A. A., & Co., Steel arbors, 27.
Poole, J. M., & Co., Cylinders, 28.
Poole & Hunt, Paint mixer, 17; Water wheel, 36; Shafting, 38; Pump, 41.
Pootilof Iron Works Co., Steam engine, 70.
Pope Manufacturing Co., Scroll saw, 22.
Popham, J. & E., Peg breaker, 57.
Popoff, B., Workbench, 69.
Popper, J. & D., Boiler fittings, 63.
Porcar y Tió, Jaime, Works, 137.
Porter, Bell, & Co., Locomotive, 46.
Porter, C. E., Fountain nozzle, 44.
Porter, Miss Rebecca T., Painting, 93.
Porter, Rose, Books, 91.
Porter, Miss Sarah, Paintings, 95.
Porter, Mrs. Susan C., Painting, 94.
Post & Co., Gauges, 39; Car trimmings, 48.
Postens, E., Soda water apparatus, 44.
Post Office Department, U. S., 79.
Potomac Cement Mills, Cement, etc., 127.
Potter, C., jr., & Co., Printing presses, 32.
Potter & Hoffman, Packing, 39; Tools, 48; Iron, 52.
Potts Bros., Boiler iron, 35.
Pou, Luis, Book, 137.
Poveda, Corporation of, Wood, 140.
Powell, R., Improvement in vessels, 50.
Powell, W., & Co., Valves, lubricators, 44.
Power, W., & Co., Ship models, 59.
Powers, S. H., Hand loom, 57.
Powers, W. P., Belting, 38.
Pozzi, V., Jewelry, 100.
Practical Technological Institute, Lathes, 69.
Pratt, H. J., Last block fastening, 107.
Pratt, J., Type writing machine, 33.
Pratt, J. W., Washer, 31.
Pratt Manufacturing Co., Fish joints, 48.
Pratt, R. V., Injector, 53.
Pratt & Whitney, Gun machinery, 25; Boiler feeder, 40.
Preble, Miss M., Paintings, 98.
Prentice, A. F., & Co., Lathes, 24, 52.
Price, Lipsett, & Co., Scales, 46.
Prichard, Smith, & Co., Boots, 106.
Prieto, A., Books, 133, 136.
Prieto, F., Skulls, 141.
Prince, G. H., Coal, 127; Woods, 129.
Pritchett & Baugh, Leather, 113.
Proctor, T. E., Leather, 114, 115.
Proell, Mrs. G., Pressed flowers, 98.
Protective Fire Apparatus Co., 152.
Prouty, A. B., Chucks, 25; Machine, 28.
Prouty, I., & Co., Boots, 106.
Providence Machine Co., Machinery, 28.
Providence Saw Works, Machine, 19.
Provincial Board of Agriculture, Industry, and Commerce, Publications, 139.
Provincial Commission, Photographs, 139.
Provincial Deputation, Picture, 139.
Provincial Hospitality, Pictures, etc., 139.
Provincial Institute, Memoirs, etc., 137.
Pryor, Mrs. H., Fancy work, 99.
Puente Villancio, José, Book, 135.
Puente y Rocha, J. de D. de la, Book, 137.
Puerta, G. de la, Treatise, 132.
Puffer, A. D., Beer apparatus, 44.
Purkis, Miss E. W., Tatting, etc., 89.
Purvis, E., Steam valve, 40.
Pusey, Jones, & Co., Machines, 23, 30, 31, 33, 38, 51, 110.
Pusey, Scott, & Co., Leather, 115.
Putnam Machine Co., Steam engines, 24.
Putnam & Estey, Emery wheels, 25.
Pyramid Pin Co., Machines, 32.
Pyrotechnical Laboratory, Fuses, 68.

Q.

Quebec Advisory Board, Ship models, 59.
Quigley, Philip, Contractor Machinery Hall, 9.
Quijano, L., Treatise, 133.
Quiroga Lopez, Woods, 140.

R.

Racine Hardware M'f'g Co., Tools, 25.
Rada y Delgado, J. de D. de la, Book, 136.
Radcliff, R. S., Coal, 127; Schoolwork, 128.
Radde, W., Pipe, 45.
Raddin, J., Carriage wheels, etc., 48.
Rafter, Susan L. J., Painting, 93.
Rall, R., Marble, 127.
Ralston, Miss Florence, Tidy, 89.
Ramapo Wheel & Foundry Co., 47.
Ramborger, A. D., Dental work, 90.
Ramirez, C., Treatise, 134.
Ramirez & Girandier, Periodical, 141.
Ramos Lafuente, Book, 133.
Ramsay, E., Herbarium and paintings, 100
Ramsay, Robert H., Gas machine, 19; Shifting apparatus, 58.
Rand, A. W., Gas machine, 19.
Randall, F. M., Pump, etc., 43.
Randolph, T. F., Ditcher and excavator, 17.
Ransom, W. A., & Co., Shoes, 106.
Rappe, Baroness E., Frames, 100.
Raschid, L., Shoes, 101.
Rosensteel, W. H., Leather, 112.
Rath, E. E., Architect, 131.
Rauer, A., Patterns, 69.
Ray, D. P., Leather, 112.
Raymond Coal Co., Coal, 127.
Raynor, S., & Co., Envelope machine, 34.
Rebolledo, J. A., Treatise, 134.
Redding, W. E., Railroad switches, 48.
Redifer, S. S., Lasts, etc., 112.
Reed, Annie, Painting, 94.
Reed, G. H., & Sons, Dressings, 105.
Reed, H., Tannery, 111.
Reed, J. A., Boilers, 34.
Reed, S. G., Portable gas attachment, 23.
Reeves, John W., Soap machine, 18.
Reford, J. W., Distilling apparatus, 50.
Regina, B., Embroideries, 100.
Reibert, Babetta, Bell pulls, 87.
Reimel, L., Uppers, 107.
Reinhardt, C., Scales, 46.
Remington, E., & Sons, Sewing machines, 31; Meter, 43.
Remington, E. H., Painting, 93.
Renard, Wires and strings, 61.
Rene, J., Leather, 116.
Renni, Mrs. C. E., Lace, 99.
Requa, E. M., Bell, 90.
Respaldiza, D., Books, 133.
Restrorff & Bettman, Polish, 105.
Reutzel, P. J., Uppers, 108.
Revenga, A., Brakes, 138.
Rex & Bockius, Gas generator, 19; Sewing machines, 30; Printing presses, 32.
Reynal, Lorenzo, Book, 135.
Reynolds, D. M., Machine, 25.
Reynolds, S., & Co., Saddlery, 109.
Reynolds, Mrs. W. H., Flannel skirt, 89.
Reynoso, Emilio, Works, 139.
Rey y Gorrindo, P., Treatise, 136.
Rezende, L. de, Machines, 68.
Rhett, Roland, Spring motor, 39.
Rhode Island Locomotive Works, 45.
Rhodes, T., Yarn beam, 29.
Ribas, J. S. G., Handkerchief, 101.
Ribot, E., & Bros., Memoir, 136.
Rice, J. P., Wheat, 129.
Rice, Miss Julia H., Table, 92.
Rice, Miss M., Picture frame, 92.
Richard, E. O., & Bro., Brakes, 58.
Richard, J. S., Looms, 60.
Richards, H. J., Ice yacht, 50.
Richards, I. P., Punches, 24.
Richards, Jackson, Piston packing, 39.

Richards, London, & Kelley, Machinery, 21.
Richards, Margaret C., Indian work, 91.
Richardson, D. M., Scourer, 49.
Richelderfer, J. H., Gaiters, 107.
Richelieu & Ontario Nav. Co., Models, 59.
Ricketts, Miss, Paintings, 94.
Rider, B. D., Wheat, 129.
Rider Life Raft Co., Raft, 50.
Rider, Wooster, & Co., Engines, 37.
Ridge, Elmer, Folding gates, etc., 48.
Riehl, M., & Sons, Book-cutting machine, 33.
Riehlé Bros., Machine, 19; Scales, etc., 46.
Ries, A., Harness, 110.
Rife, H. J., Leather, 112.
Rigollot, Water cocks, etc., 61.
Riley, J., Wheat, 129.
Rio de Janeiro Com'n, Handkerchief, 101.
Rio Grande do Sul Arsenal, Weapons, etc., 68.
Rippman, C. A., Leather, 113.
Risdon, T. H., & Co., Water wheel, 36.
Rittenhouse, E. W., & Bro., Pipe, 52.
Ritter, J. R., Apparatus, 43.
Rius, Antonio, Book, 137.
Roach, J., & Son, Models, armor plate, 51.
Roach, J. B., Models, 51.
Robbins & Kelloggs, Shoes, 107.
Robbins, L. E., Diagram, 88.
Robbins, Miss E., Mirror, 98; China, 95.
Robert y Serrat, José, Book, 135.
Roberts, A. & P., & Co., Car axles, 47.
Roberts, Carle, & Co., Hand cutter, 50.
Roberts, E. A. L., Torpedo, 17; Metal, 23; Engine, 37; Pump, 41.
Roberts, J. M., Hair wreath, 97.
Roberts, Mrs. J. S., Needlework, 99.
Roberts, W., Machine, 54.
Robertson, J., & Co., Pumps, 43.
Robertson, Mrs., Berlin wool work, 99.
Robertson & Hoople, Leather, 113.
Robeson, Hon. G. M., Sec. of the Navy, 72.
Robidoux, J., & Sons, Scales, 46.
Robinetz, J. F., Model locomotive, 46.
Robinson, J. E., Artesian well, 17.
Robinson, L. W., Sewing machine treadle, 30.
Robinson, R. M., Anchor, 52.
Robitaille, T., Boat, 59.
Robson, H. A., Corn, 129.
Robson, M. E., Basket, 128.
Roby, G., Vessels, 56.
Rochelle, L. N. & A. H., Separator, 59.
Rockenback, H., Leather, 114.
Rockville Traverse Card Grinding Co., 28.
Rockwell Bros., Leather, 113.
Rockwell, J. S., & Co., Leather, 115.
Roddey, P. D., & Co., Ventilator, etc., 42.
Rodney Machine Co., Water wheel, 36.
Rodriguez, A., Saffron, 141.
Rodriguez Cortes, César, Photographs, 139.
Rodriguez, Desiderio, Table, 139.
Rodriguez, E., Manual, 134.
Rodriguez, Eduardo Lopez, Method, 135.
Rodriguez, L., Saffron, 141.
Rodriguez Mananes, P., Books, 132.
Rodriguez Martin, V., Designs, 132.
Rodriguez Villa, A., Treatise, 136.
Roebling's Sons, J. A., & Co., Rope, 38.
Roemer, W., Trunks, 109.
Rogers, C. B., & Co., Machinery, 21.
Rogers, E. T., Shoes, 108.
Rogers Locomotive & Machine Works, 45.
Rogers, Wm. A., Automatic machine, 25.
Roibon, F., Model, 69.
Roland, F., & Co., Separator, 49.
Roman Women, Work of, Rugs, etc., 101.
Romancos, Corporation of, Sumac, 140.
Romani, G., Embroideries, 100.
Romans, Misses Crochet work, 99.
Romero y Andia, A., Instruments, 134; Clarionet, music, 138.
Ronald, J. D., Fire engine, etc., 58.
Roney, J. B., Machines, 111.
Rooke, Miss E. E., Macramé lace, 98.
Rooke, Mrs. H. A., Lace, 98.
Roots, P. H. & F. M., Blowers, etc., 42; Gas valves, etc., 45.
Rorer, T. I., Belting, 38.
Rose & McDonald, Roller combs, 32.
Rose, A., Leather, 114.
Rose, Adelaide, Paintings, 93.
Rose, N., Ship models, 59.
Rosenegger, J., Furnace model, 63.
Rosensteel, W. H., Leather, 111.
Rosenthal, H., Horse brushes, 110.
Rosenthal, I., Stamping apparatus, 32.
Ross, E., Boat, 59.
Ross, E. W., & Co., Jointer, 21; Mills, 22, 30.
Ross, L. E., Spring motion for looms, 28.
Ross, Thomas, Machine, 26; Crane, 43.
Rougier, Miss J., Painting, 100.
Rous, E., Clasps, 62; Pulleys, 61.
Rousholdt, Miss, Flower painting, 100.
Rousseau's Railway Signal Co., 48.
Rovira y Rabassa, Antonio, Plan, 139.
Rowand, J. R., Brake, 46.
Rowen, J., Trunks, 109.
Rowland, T. F., Forgings, 19; Life boat, 51.
Royal Academy, Madrid, Works, 133.
Royal Acad. Fine Arts, Madrid, Books, 135.
Royal Acad. of History, Madrid, Books, 135.
Royal Acad. of Sciences & Arts, Books, 135.
Royal Academy, Seville, Speeches, 135.
Royal Saxon Fire Extinguisher Co., 62.
Royal School of Art, Needlework, 98.
Royal Swedish Commission, Models, 66.
Royer, H., Belting, 38.
Royo, Mariano, Treatise, 135.
Rozario, G. M. da, Lace, 101.
Rubio y Diaz, Mathematics, 133.
Rue Manufacturing Co., Boiler feeders, 39.
Ruffner, L., & Lewis, J. D., Sandstone, 126; Schoolwork, 128; Timber, 129.
Ruger, J. W., & Co., Cracker machinery, 50.
Ruiz, Manuel, Pictures, 139.
Ruiz de la Pena, T., Translation, 133.
Ruiz de Salazar, Publication, 136.
Rumsey & Co., Pumps, 41; Hand fire engine, 43; Leather, 114.
Runqvist, C. R., Governors, 65.
Ruoff, W., Jackscrews, 42.
Russell, B. G., Copper valve box, etc., 68.
Russell, Burdsall, & Ward, Bolts, 27.
Russell, Helen A., Decorated china, 95.
Russell, S. J., Wood lathes, 19.
Russell, W. C., Wrench, 27.
Russell, W. D., Engines, 37.
Russian Rail Manufacturing Co., Ties, 70.
Russian Steamboat & Trade Co., Model, 70.
Ruth, Mrs. S., Sunshade, 90.
Rutschmann Bros., Hand drill, 27.
Rutterford, Miss I., Lace work, 99.
Ryan, James M., Lathe, 26.
Ryder Reciprocal Grate Association, 34.

S.

Saco Water power Machine Shop, 28.
Saco y Arce, J., Grammar, 133.
Saenz Navarette, J., 133.
Sahler, Miss E., Flowers, 97.
Sainz, Juan Antonio, Works, 135.
Salas, Corps of Forest Engineers, Resin, 141.
Salcedo, Pedro, Morata, Plan, 139.
Sales, J., Models, 141.
Sallada & Pearson, Whips, 110.
Saller, Lewin, & Co., Shoes, 107.
Salvador y Aznar, F., Manual, 133.
Sample, McElvoy, & Co., Boiler, 35.
Samson & Co., Ship models, 59.
Samuelson, S. H., Machines, 65.
San Bernardo, Count of, Cork, 140.
Sanborn, G. H., Paper cutter, 33.
Sanchez Almonacid, Mariano, Memoir, 137.
Sanchez Casado, F., Guide, 133.
Sanchez, P., Objects, 132.
Sanchez, Pedro, Aquarelles, 139.
Sanchez, Pilar, Novel, 135.

Sanchez y Merino, R., Treatise, 133.
Sancho Velasco, A., Music boxes, 138.
Sancta Catherina, Province of, Flowers, 102.
Sandall, J., Valve, 58.
Sande Olivares, J., Dyers' weed, 140.
Sandvikens Iron Works, Rod and axles, 65; Wheels, 66.
San Isidoro Institute, Memoirs, 132.
San José, College of, Manila, 141.
San José, Municipal School of, Tapestry, 101.
San Paulo, Convent das Merces, Branch, 102.
Sanson, R. B., Cutting machine, etc., 55.
Santamaria de Paredes, Publications, 136.
Santa Marta, Marquis of, Cork, 140.
Santander, Institute of, 133.
Santero y Moreno, T., 133.
Santiago del Estero, Prov. Com. of, Loom, 69.
Santos, Cauto dos, Iron, 68.
Sanz, M., Pine cones, 141.
Sanz Pasalodos, J., Pine cones, 141.
Sartain, Emily, Paintings, 93; Engravings, 96.
Sauerwein, Loulie C., Paintings, 94.
Saunders, William, U. S. Agri. Dept., 72.
Saurbier, H., & Sons, Tools, 111.
Sausser, Dangler, & Co., Shoes, 107.
Sauter, C., Cleaning machine, 50.
Savin, T., Leather, 116.
Sawtall, G., Whetstones, 127.
Sawyer, H., Blue, 105.
Sawyer, J. A., & Son, Planer, 23.
Sax & Kear, Car wheels, 47.
Saxby & Farmer, Railway switches, 56.
Sayre, J., Corn, 129.
Scales, Mrs., Berlin wool work, 99.
Scales, R., Tobacco machine, 59.
Schafer, B., Desks, 128.
Schaff, W., & Co , Leather, 115.
Schäffer & Budenberg, Machines, 62.
Schaller, G., Moroccos, 116.
Schanz, C., Hook and ladder truck, 43.
Scheiner, J. H., Frogs, 48.
Schellberg, B. F., Leather, 112.
Schemedes, J. W. R., Evaporator, 49.
Schieren, C. A., Belting, 38.
Schierloh, H., Compound, 23.
Schiff, W. L., Shoes, 107.
Schilling, F. A., Engines, 62.
Schlickeysen, C., Brick machines, 62.
Schmalz, F. G., Glove machines, 62.
Schmid, J., Shoes, 107.
Schmidt, J., Tidy, 90.
Schmidt, Josephine, Landscapes, 93.
Schmitt, Madam K., Jewelry, 90.
Schoellkopf, J. F., & Son, Leather, 114.
Schoem, W. H., Springs, 47.
Scholfield, Socrates, Logging saw, 22.
Schollenberger, W., & Sons, 115.
Schon, Mathias, Tire upsetting machine, 24.
School of the Immaculate Conception, 101.
School of Mining Engineers, Books, 134.
School of Mountain Engineers, Books, 134.
School of Music and Recitation, 134.
Schools of Drawing and Design, Carved frame, 91; Crayons, 96; Photographs, 97.
Schram, W., Looms, 63.
Schultz, E., Apparatus, 62.
Schuman, F., & Son, Leather, 114.
Schuman, J. W., Leather, 114.
Schutte & Goehring, Steam jet machinery, 40.
Schwarzman, H. J., Architect, 85, 131, 143, 144, 145, 147, 150.
Scofield, Charles, Shafting machine, 25.
Scofield & Stevenson, Leather, 115.
Scott, Mrs. E. M., Painting, 94.
Scott, H., Ochre, 128.
Scott, Mrs. John, Guipure barb, 88.
Scott, Miss S., Toilet box, 90.
Scott, Mrs. T. R., Handkerchief, 88.
Scott-Uda, Mrs., Ladder, 53.
Scudder, Miss Tillie, Cupboard, 92.
Seamon, H., Tobacco, 130.
Sears & Warner, Shoe goods, 108.
Seaton, W., Railway construction, 56.
Seatt, J., Rock, 127.
Seavey, Foster, & Bowman, Silk, 116.
Sebastia Vila, Pedro, Photographs, 139.
Seco Baldor, J., Book, 134.
Secor Sewing Machine Co., Machines, 31.
Seely & Stevens, Pellucidite, 48.
Segebader, H., Embroideries, 100.
Segovia, Institute of, 133.
Sellers, Wm., & Co., Steam hammers, 24; Injectors, 36; Registers, 52.
Sells, H., Cider mill, etc., 58.
Semenetz, R., Boots, 106.
Semple, M. H., Steam cutter, 33.
Serra y Navarro, Mariano, Books, 136, 137.
Serrena y Arenas, P., Fancy work, 140.
Serrin, Regulator, 61.
Serzidillo, D. A. M., Cork frame, 102.
Settle, J. G., Wheat, 129; Flax, 130.
Sevebreunikoff, S., Leather, 116.
Seville, Normal School of Masters, 138.
Sewall, Day, & Co., Rope, etc., 50.
Sewell, E. W., Ship models, 59.
Seymour & Whittock, Mortising machines, 21.
Shaler, Miss Minnie, Carved chess board, 92.
Shapleigh, Mrs. E. B., Hand made rugs, 87.
Shapley & Wells, Engines, 37.
Sharp & Staples, Oils, 128.
Sharp, Tudor, & Co., Leather, 115.
Shattuck & Binger, Skins, 114.
Shaw, C. A., Lasts, 106.
Shaw, Miss E., Pressed ferns, 98.
Shaw, J., 2d, & Bro., Shoes, 108.
Shaw, Mrs. James, jr., Infant's socks, 88.
Shaw, Thos., Lathe tools, 27; Gauges, 34.
Shaw, W., Logotypes, 55.
Shearer, H., Machines, 54.
Shedd, J. H., Hydrant box, 44.
Sheffield, Mrs. S. K., Footstool, 89.
Shellman, Miss M. B., Picture, 97.
Shepherd, Mrs. Emeline, Handkerchief, 88.
Shepherd, Mrs. E. M., Lace, 89.
Shepperd, L., Corn, 129.
Sheridan, E. R. & T. W., Paper cutters, 33.
Sherman, Miss F. M., Lithograph, 96.
Sherwood, Amanda S., Griddle greaser, 87.
Shiloff, L. P., Car lock, etc., 70.
Shimp, J., Ores, 126.
Shippen, Mrs. R. R., Porcelain table top, 95.
Shore Bros., Boiler feed, 34.
Short, J., Motion loom, 29.
Short, Mrs. S., Washer, 87.
Short, S., Mangle, 31.
Shriver, A. K., & Sons, Leather, 112.
Shultz, Southinck, & Co., Leather, 113.
Shuster, J. T., Boiler, 34.
Shutt, D., Machine-needle threaders, 31.
Sickles, F. E., Models, 52.
Siebe & Gorman, Diving apparatus, 56.
Siemens, C. W., Mills, 54.
Silcott, Milikan, & Gold, Machine, 29.
Sill, Miss Anna P., History, 91.
Silsby M'f'g Co., Pump, 40; Engines, 43, 53.
Silva, M. M., Watch case, 102.
Silva, Z. C. de, Robe, 101.
Silveira de Souza, Sisters, Flowers, 102.
Silver & Deming Manufacturing Co., Machine, 20; Drills, 27; Choppers, 50.
Silver Lake Co., Steam packing, 40.
Silvina, Tripo di, Tools, 68.
Simon, C., & Son, Skins, 116.
Simon, E., & Bro., Trunks, 108.
Simonds Manufacturing Co., Saws, 27.
Simonds, N. J., Bevel, 107.
Simpson, I. E., Mineral water, 127.
Simpson, J. F., Trunk closer, 109.
Sinclair, G. W., Beans, 130.
Singer, J., Car coupler, 46.
Singer Manufacturing Co., Machines, 31.
Sinsel, J. B., Ash, 129.
Sisters of the Visitation, Chenille flowers, 90.
Skidmore, A. F. & G. C., Barrel coilers, 21.
Skinner & Wood, Boiler, 36.
Skuse, M. J. & F. A., Irish point lace, 88.
Slates, Mrs. E. J., Embroideries, 89.
Sleuster, J. T., Felting, 53.

Slichal, F., Horse shoes, 68.
Slocum, Mrs. M. E., Plant protector, 98.
Sluthour & Mintzer, Engines, etc., 41, 53.
Small & Fisher, Barrel lifter, 58.
Smark, J., Drilling machines, 57.
Smart, J., Pump, 58.
Smelan, Mrs., Paintings, 99.
Smith, C. D., Boiler, 35.
Smith, D., Stokers, 54.
Smith, D. S., Canoe, 50.
Smith, E. A., Fire screen, 97.
Smith, H. B., Machinery, 21; Tools, 52.
Smith, H. F., Fountain, 58.
Smith, J., & Co., Fabric machinery, 29.
Smith, J. A. V., Spreader flies, 29.
Smith, J. Barton, & Co., Rasps, etc., 112.
Smith, Julia E., Translation of Bible, 91.
Smith, J. G., Engine, 58.
Smith, L. F., Low water indicators, 40.
Smith, Mrs. O., Range, 87.
Smith, Oberlin, & Bro., Drills, 24.
Smith, P. P., Ochre, 128.
Smith, S. D., Grate bar, 35.
Smith & Starley, Motors, 55.
Smith, Wm. M., Machines, 110, 111.
Smithsonian Institution, U. S., 80.
Smyth, Mrs. M. H., Embroidery, 89; Indelible ink marker, 95.
Snider, D. M., Felting, 53.
Snyder, W. B., Steam engine, 34.
Society Amante da Instruccao, Work, 101.
Society of Andalusian Bibliophilists, 135.
Society "Centra de Lecturo," Books, 134.
Society for the Protection of Animals and Plants, Cadiz, Publications, 135.
Society of Patrons of National Production, Documents, 135.
Soderberg, M., Mantle, 100.
Soderqvist, R., Gas apparatus, 65.
Sola y Roca, Ramon, Cuts, 139.
Solana y Viton, P., Books, 132.
Soler, Federico, Project, 139.
Solin Bros., Grease, 116.
Solis, P., Books, 132; Atlas, 138.
Sollers, S. D., & Co., 107.
Sommerville, J. N., Leather, 112.
Somoza Piñeiro, Ramon, Book, 135.
Sorakin, T., Leather, 116.
Soto Freire, M. L., History, 136.
Souher, A., Lamps, 64.
Souza, F. de, Metal fuses, 68.
Spahn, Emil P., Models, 48.
Spanish Society of Natural History, 135.
Spanish Society of Sciences, 135.
Spanogel, S., Leather, 115.
Spanogle & Pennabaker, Leather, 112.
Sparre, J. von, Drill, 62.
Spaulding, E., Leather, 113, 114.
Spawn, A. F., & Co., Fire engine, 43.
Special School for Painting, Sculpture, and Engraving, Madrid, Memoirs, 135.
Speihlman, G., Meat chopper, 50.
Spencer, R., Saddle cloths, 110.
Spicharz, P. J., Kid, 116.
Spiral Elliptic Spring Works, Machine, 24.
Spiral Tubing Co., Machine, 28.
Spofford, Mrs. J. H., Supporter, 87; Saddle, 90.
Spreafico, José, Album, 139.
Spring, Mary, Landscapes, 94.
Springer, Mrs. L. R., Wax work, 97.
Springfield Iron Works, Wheels, 34, 36.
Stack, I. I., Ore, 126.
Stacy, George, Fastenings for stonecutters, 26.
Stacy Stone Dressing Machine Co., 25.
Staley, T. J., Tobacco, 130; Schoolwork, 128.
St. Amand, O., Sewing machines, 57.
Standard Laundry Machinery Co., Washing machines, 31; Copying machine, 33.
Standard Machinery Co., Paper machines, 33.
Standard Steel Works, Tires, 47.
Stangeland, E., Machine, 49.
Stansbury, Mrs. J. C., Thread lace, 89.
Stanton Rock Coal Co., Coal, 127.
Star Rubber Co., 109.
Starr, J. W., & Son, Gas works, pipe, 19; Castings, 45, 119.
Starr, W. M., Water wheel, 36.
Steam Engine Works, Caboose, 70.
Steam Generator Manufacturing Co., 34, 52.
Steam Stone Cutter Co., Machines, 25.
Stearns Manufacturing Co., Saw mill, 22.
Stearns, Mrs. A. B., Diagrams, 88.
Steele Bros., Glass engraving, 27.
Steele, Mrs. M. W., Toy set, 87.
Steiger, Mrs. Hannah, Lock barrel cover, 87.
Steigert, L., Horizontal engine, 34.
Steigler, A., & Co., Harness leather, 114.
Steinwand, C., Skins, 113.
Steinway & Sons, Piano frames, 46.
Stengel, G., Leather, 115.
Stephens, Miss Maud, Paintings, 93.
Stephens, W. A., Machine, 111.
Stephenson, Mrs. E. J., Inlaid table, 100.
Stephenson, M., Drills, 57.
Sterling, Mrs. Charlotte, Dish washer, 87.
Sterling, Mrs. E. J., Tiles, 97.
Stern, Miss Jessie, Wall pocket, 92.
Sternberger, L., Machines, 31; Elevator, 42.
Sternbergh, J. H., Machines, 17, 23.
Stevens, Elizabeth M., Painting, 93.
Stevens Patent Vise Co., Vises, 52.
Stevens, W. X., Shears, 23.
Stewart, Alice, Water colors, 94.
Stewart, J. P., Collars, 110.
Stewart, Ralph, & Co., Packing machines, 42.
St. Hyacinthe, Convent of, Plan, 99.
Stigale, Mrs. E. M., Model, 97.
Stileman, R. T. H., Water gates, etc., 45.
Stiles & Barker Press Co., Drop hammers, 23.
Stiles, Mrs. E. W., Desk, 87; Inkstand, 90.
Stillman, Watt J., Track guard, 48.
Stilwell & Bierce, Lathes, 32; Heater, 52.
Stilwell & Bierce Manufacturing Co., Water wheel, 36; Heater, etc., 39.
Stimpson, E. B., Machine, 111.
Stitt, Price, & Co., Limestone, 123.
St. John Sewing Machine Co., 30.
St. John's Guild, Embroidery, 88.
St. Joseph, Convent of, Berlin wool work, 99.
Stocking, Z. S., Sandstone, 123.
Stockwell, J. W., Cement-pipe machinery, 26.
Stoddart & Fifield, Skiving machines, 110.
Stokes & Parrish, Hoisting machine, 120; Boiler, 121.
Stoll, J. B., & Co., Leather, 112.
Stone, Lucy, Women's Journal, 91.
Stone, Mary L., Block drawing, 95.
Stoner, J. B., Lighthouse, 50.
Storrs, L. B., Pressing machines, 31.
Story, Miss Mary, Chess table, 87.
Stout, H. L., Carbonate of iron, 126.
Stout, Mills, & Temple, Water wheels, 36
Stow & Burnham, Cable, 38.
Stowe, A. F., Machines, 111.
St. Petersburg River Yacht Club, Boats, 70.
St. Petersburg, Smithery of, Bolts, 69.
Stranges Cylinder & Machine Co., Lathe, 19.
Straus, M., Leather, 114.
Straw, E. A., Fire engines, 43.
Street, E. A., Pump, 43.
Stribley & Co., Shoes, 106.
Stribley, Miss May, Picture frame, 92.
Strickland, Misses, Embroidery, 99.
Strider, J. S., Marble, 127.
Strider, S. W., Marble, 127.
Stridsberg & Biork, Saw blades, 65.
St. Sebasteao, School of, Tapestry, 101.
St. Tomas, College of, Manila, 141.
Studley, Mrs. Thos. E., Painting, 93.
Studwell, Sanger, & Co., Backs, 115.
Stump, F., & Co., Blacking, 105.
Sturtevant, B. F., Blower, 42; Apparatus, 110; Machines, 111.
Suaña y Castellet, E., Latin, 133.
Suarez, V., Scientific works, 136.
Suermoudt, Mrs. A., Counterpane, 100.
Sugg, W., Burners, 54.
Sullivan Machine Co., Roving cans, 28.

Sulter, F., Propeller screws, 51.
Sulzer Bros., Engine gear, 63.
Summer, Mrs Sallie O., Mittens, 88.
Superior Normal School, Books, 132, 133.
Suplee Needle Co., Needles, 30.
Surber, J. J., Reeds and heddles, 63.
Suros, A., Books, 136.
Suso, Manuel, Periodical, 137.
Sutcliffe, J. S., Separator, 56.
Sutcliffe, Mrs., Needlework, 99.
Sutherland, I. G., Boots, 108.
Swain, Fuller, & Co., Machines, 111.
Swarzmayer, J., Flying machine model, 50.
Sweet Chalybeate Springs, Water, 127.
Sweet, Mrs. J. E., Wax flowers, 97.
Sweetland, I. B., Elevator, etc., 43.
Sweetzer, C. S., & Co., Boots, 108.
Swift, Miss Mary P., Writing desk, 92.
Swiss Mf'g Co., Heating apparatus, 63.
Symonds, W. S., & Co., Crushing machine, 57.

T.

Tablares, F., Pine seed, 141.
Tachigraphy, Academy of, Documents, 135.
Taft, J. C., Sewing machines, 31.
Tagleicht, K., Spark catcher, 63.
Tait, Thomas, Water wheel, 36.
Talbot, Miss Eleanor W., Painting, 93.
Talhouet, Mrs. R., Embroidery, 100.
Talley, J., jr., Liquid faucet, 44.
Talvaila, Corporation of, Wood, 140.
Tandy, G. J., Boiler, 58.
Taneyhill, Flora, Painting, 93.
Tapley Heel Burnishing Machine Ass'n, 111.
Tardy, Mrs. C., Corset, 88.
Targett, J., Patterns, 107.
Tarragona, Provincial Institute, Memoirs, 137.
Tatham & Bros., Hoisting machines, etc., 43.
Tatum, Miss Lizzie, Flower stand, 92.
Taws & Hartman, Blasting furnaces, 41.
Taylor, Hon. R. W., U. S. Treasury Dept., 72.
Taylor Iron Works, Car wheels, 47.
Taylor, J. F., Press, 42.
Taylor, M. B., Whip lashes, 110.
Taylor, Miss, Drawing on cloth, 89.
Taylor, W. B. S., Rubber tubing, 109.
Tazzer, Miss Augusta, Rocking chair, 92.
Teal, C. A. & W. L., Boiler rolls, 25.
Tebbetts, C. B., Shoes, 108.
Tehernish, E., Leather, 116.
Tember, K., & Schovede, L., Belts, 70; Leather, 116.
Temple, Edward B., Planing machine, 24.
Temple, Mrs. O. H., Picture frame, 92.
Tenas, Ramon, Plan of church, 139.
Terry, Miss J., Fans, 97.
Teter, W. L., Feed, 49.
Thames River Worsted Co., Frame, 29.
Theiberath, C. M., & Bro., Mountings, 109.
Thermo Electric Generator Co., Batteries, 55.
Thessier, F., Table apparatus, 61.
Thierry, E. J., Shoes, 106.
Thomas Extract Co., Leather, 113, 115.
Thomas, Mrs. Annie N., Painting, 94.
Thomine, F., Machine, 60.
Thompson, B. F., & Co., Leather, 115.
Thompson, Mrs. J., Bread, 100.
Thompson & Nowell, Machine, 111.
Thompson, O. D., Limestone, etc., 127.
Thomson, Alexander, Governor for gas, 18.
Thomson Williams' Mf'g Co., Engine, 58.
Thorne, De Haven, & Co., Machines, 24.
Thorne, J. W., Trunk, 109.
Thorne, McFarland, & Co., Leather, 113.
Throops Grain Cleaner Co., 49.
Thwait, C., Steamship model, 51
Tidball, Miss Flora, Bedstead, 92.
Tiffany, G. S., Brick machine, 57.
Tiffany, J. C., Oil gas generator, 19.
Tilzoff, J., Weaving slays, 69.
Tingley, J., Machine, etc., 112.
Tipton, John, Boat model, 51.
Tobias & Heilbrun, Restaurant, 150.
Todd, Miss Lizzie, Embroidery, 88.
Toledo Pump Co., Pumps, 41.
Tolles, Sophie M., Portraits, 94.
Tolrá, José, & Co., Pamphlets, 137.
Tompkins, S. E., & Co., Saddlery, 109.
Tool Co., Hamilton, Ont., Lathe drills, 57.
Toole, Mrs. J. C., Table cover, 89.
Torre Diaz, Count of, Cork, 140.
Torres y Fernandez, S., Treatise, 137.
Torres y Garcia, Ramon, Books, 135.
Torres y Gonzales, B., Book, 137.
Torres y Puig, Alejandro, Memoirs, 137.
Torrevias Tunels, M., Cork, 140.
Torrey, Martha A., Indelible ink marking, 95.
Torrey, Miss, Lace tidies, 89.
Tos, J., Corks, 140.
Townsend, Mrs. G. L., Attachment, 98.
Towsley, L. D., & Co., Gas utilizer, 18.
Tracy, Eliashib, Boiler injector, 39.
Tracy, J. L., Sec. Missouri State Com., 130.
Traiser, C., Ruling machine, 62.
Tranque y Cassi, L., Book, 135; Map, 138.
Trautwein, C., & Co., Leather, 112.
Treadwell, Mrs. F. C., Dental work, 90.
Treasury Department, U.S., 78.
Tremper, Miss M., Machine, 87; Strap, 90.
Tretzer, A., Engine, 70.
Tricourt, A., Machine, 61.
Trilla & Serra, Periodical, 137.
Troemner, H., Coffee mills, 50.
Trump Bros., Scroll saws, 19.
Tryatt, Miss F., Photographs, 97.
Tryon, G. K., Son, & Co., Car bearings, 47.
Tscherning, Miss, Painting, 100.
Tubert y Carrera, Juan, Book, 135.
Tubular Barrow & Truck Mfg. Co., Hammer, 23.
Tubular Rivet Co., Rivets, etc., 111.
Tuck, S. V., Tools, 112.
Tucker, Types, 60.
Tuckerman, Mrs. Lucius, Tablet, 91.
Tuerk, F. W., Water wheel, 58.
Tuero, J. M., Book, 138.
Tufts, J. W., Soda water apparatus, 44.
Tully, John W., Paints, etc., 18.
Tully, Mrs. K., Moss picture, 100.
Tuñon de Lara, M., Cork, 140.
Tupper, L. B., Grate bars, 34.
Tupper, W. W., & Co., Grates, 34.
Turnbull & Samuels, Heel, 108.
Turner, B. B., & Co., Machines, 64.
Turner, C., Couplings, 55.
Turner, G. H., Photograph, 128; Wheat, 129.
Turner, Parks, & Co., Separator, 49.
Tuthill, D. S., Railway tracks, 48.
Tuthill, S. S., Pencil drawing, 96.
Twiss, N. W., Engines, 37.
Twombly, Mrs. John H., Painting, 93.
Tygh, J. F., Machine and moulds, 49.
Tyner, Hon. J. M., Postmaster General, 72.
Typographical Establishment of Oliva, 139.

U.

Uhlinger, W. P., Hydro extractor, 31.
Underhill & Noble, Leather, 112.
Union Benevolent Society, Clothing, 88.
Union Car Spring Co., Springs, 48.
Union Edge Setter Co., Burnisher, 111.
Union Mf'g. Co., Pumps and cisterns, 40.
Union Rock Drill Co., 17; Compressor, 41.
Union Stone Co., Emery wheels, 26.
Union Water Meter Co., Meters, 39.
United States Attrition Co., Mill, 49.
United States Bunting Co., Flags, 51.
United States Corset Co., Power loom, 30.
United States Hoisting & Conveying Co., 42.
United States Sewing Machine Co., 31.
Unruh, J., & Sons, Trunks, 109.
Upton, Mrs. E. W., Water color, 98.
Uria & Pinilla, Charcoal, 140.

Utica Steam Gauge Co., Gauge, etc., 39.
Utor, L. M., Work on Agriculture, 136.

V.

Vail, S. S., Boiler, 35.
Vail & Wallace, Water elevator, 41.
Valdaraque, Rafael, Poetry, 135.
Valentine, W. J., Turbines, 36.
Valladolid School of Fine Arts, Books, 138.
Vallandingham, Miss N., Dressing stand, 92.
Vallarino, Baltasar, Book, 137.
Valley Machine Co., Steam pumps, 40.
Vallin y Bustillo, Books, 133, 134.
Valpey & Anthony, Shoes, 106.
Van den Kerchove, P., Engines, 64.
Vanderpool, Mrs. E. N., Fan, 90; Monograms, 97.
Van Haecht, E., Models, 64.
Van Hagen, C., & Co., Iron planers, 24.
Vanhorn & Cranston, Machine, 34.
Vansittart, Mrs. H., Screw propeller, 55.
Vasquez, Chas. L., Gas machine, 19.
Vean, Miss M., Embroideries, 99.
Velicia, F., Sumac, 140.
Ventilating Waterproof Shoe Co., 108.
Verdú Perez, J., Saffron, 140.
Vergara, M., Periodical, 136.
Versé-Spelmans, Brichot, A., & Co., Belting, 64.
Veterinary School, Leon, Books, 134.
Veterinary School, Zaragoza, Books, 138.
Vianna, B. R., Watch case, 102.
Victor Sewing Machine Co., Machines, 30.
Vicuna, G., Works, 133.
Vidal, Domingo, A., Books, 136.
Vidal y Roger, Andres, Periodical, 137; Music, 139.
Vidal y Soler, S., Books, 141.
Viell, Miss, Lace, 99.
Vilella y Font, S., Fables, 133.
Villa, Cav. I., Drawings, 67.
Villaciervos, Corporation of, Wood, 140.
Villar Garcia, Martin, Book, 135.
Villegas, E., Books, 134.
Virginia Coal Co., Coal, 127.
Vital, A., Rollers, 60.
Vitoria Board of Primary Instruction, 132.
Vitrified Wheel & Emery Co., Emery, 24.
Vogel, A. C., Crimping pin, 90.
Vojtěchovsky & Reznicek, Machines, 63.
Volcano Oil & Coal Co., Coal, 126.
Von Behren & Shaffer, Boat oar, etc., 50.
Von Essen, Baron H. H., Veneering iron, 65.
Von Staden, W. G., Rafters, 58.
Vose, Dinsmore, & Co., Car springs, 47.
Vose, Wm. T., Hydropult, 43.
Voster, Sarah H., Painting, 94.
Vulcanized Fibre Co., Rubber goods, 39, 109.

W.

Waas, H. A., Trunk, 109.
Waddle, J. & M., Sandstone, 127; Corn, 129.
Wadsworth, Miss A. E., Painting, 94.
Wagener, J., Sewing machines, 30; Stone, 123.
Wahl, A., Health apparatus, 38.
Walcott, Eloise B., Indian basket work, 89.
Waldron, J. E., Paper printing machine, 32.
Waldron, J. V., & Bro., Trimmings, 109.
Walker, Bros., Scroll-sawing machine, 19.
Walker, J. H. & G. M., Boots, 107.
Walker, James H., Model of gas works, 18.
Walker, Oakley, & Co., Leather, 115.
Walker, Mrs. Victoria, Carriage robe, 89.
Walker, Miss W., Painting, 101.
Walker, W. B., Smoothing irons, 31.
Walker, W. R., Architect, 143.
Wallace & Keller, Turning lathe, 20.
Wallace, Mrs. M. W., Drawings on wood, 96.
Wallace & Sons, Electric machines, 18.
Wallace & Tucker, Fire annihilator, 55; Model, 56.
Walter, G. C., Sewing machine, 110.
Walter, J., Press, 55.
Walton, L. W., Rowlock, 50.
Walton, S., Water wheel, 36.
Walworth Manufacturing Co., Gas machines, 19; Hose, etc., 43; Heating apparatus, 45.
Wanzer & Co., Sewing machines, 57.
War Department U. S., 73, 76.
War Depository, Madrid, Maps, 138.
Ward, Emily Winthrop, Bas-relief, 91.
Ward, Hetta L. H., Ear rings, 90; Painting, 95.
Ward, S. H., Fireplace, 97.
Wardwell, G. J., Engines, 37.
Wardwell M'f'g Co., Sewing machine, 31.
Ware, Mrs. M. L., Flowers, 98.
Waring, J. B., Steam pump, 41.
Waring Rock Drill Co., Drill, 17.
Warner, Mrs. George, Water color, 95.
Warner, Miss Naidine, Painting, 93.
Warren, Mrs. E. J., Bark pictures, 100.
Warren Foundry & Machine Co., Pipe, 44, 45.
Warren, John, Paneling machine, 21.
Warth, A., Cutting machines, 30.
Warthorst & Co., Stone, 123.
Washburn, Mrs. H. B., Painting, 95.
Washburn Car Wheel Co., Wheels, 47.
Washburn Machine Shop, Lathes, 24; Drawing models, 30.
Waterous Engine Works Co., Saw mill, 57.
Waters, C., & Co., Engine governors, 39.
Waters, E., & Sons, Paper boats, etc., 50.
Waters, G., Corn, 129.
Watson, J., Mosses, 98.
Watson, James, Gap lathe, 25.
Watt, F. H., Trunks, 109.
Wattes, Edward, jr., Pocket flasks, 23.
Watts, Hon. F., Com'r of Agriculture, 72.
Way, Agnes C., Painting, 93.
Way, J. S., & Co., Leather, 115.
Weaver & Bardall, Whips, 110.
Weaver, W., Rock drill, 17.
Webb, Wm. B., Leather, 112.
Webb, W. W., Models, 51.
Webster, Mrs. Elizabeth S., Paintings, 93.
Webster, Mrs. R. A., Point lace, 99.
Webster, S., Tank, 58.
Webster, Mrs. S. A., Panels, 93.
Weddleton, J. B., Ship material, 59.
Wedekind, Hallenburg, & Bro., Leather, 112.
Weed, J. B. & F. M., & Co., Leather, 115.
Weed & Co., Cutting machine, 23.
Weed Sewing Machine Co., Machines, 31.
Weeks, Caroline, Portrait, 93.
Weikel & Smith, Coffee roaster, etc., 50.
Weil, J., & Bros., Leather, 115.
Weiller, Julia, Embroidered picture, 89.
Weimer, P. L., Charging apparatus, 18.
Weimer's Machine Works, Carts, etc., 118.
Welby, Belting, 61.
Welch, A., Wagons, 56.
Welch, R. R., Car coupler, 46.
Weld, Mrs. Wm. G., Panels, 88.
Wells Balance Engine Co., Engine, 38.
Wells, Miss Glory Anna, Dish washer, 87.
Wells, H. F., Leather, 113.
Wells, J., Limestone, 127.
Wells, M. D., & Co., Boots, 106.
Wells, N., Clay, 127; Photograph, 128.
Welsh, Mrs. A. S., Embroidery, 89.
Wemner, P. L., Blowing engine, 42.
Wensley, J., Machines, 30; Uppers, 114.
Wenström, W., Turbine, 65.
Wentz & Clark, Leather, 115.
Wertheim, L., Packing, 62.
West Bros., Shoes, 106.
West, Elizabeth J., Marking, 95.
West, Miss J. M., Spatter work, 90.
West, Mrs., Berlin wool work, 99.
West Virginia, State of, Exhibit, 125.
Westcott, C. J., Type machine, 33.
Western File Co., Files, 27.

Westinghouse Air Brake Co., Brakes, 46.
Wetherill, R., & Co., Engine, 37.
Wetzlar, A., Leather, 114.
Weyhe, W., Pumps, 62.
Wharton Railroad Switch Co., Switch, 48.
Wharton, Wm., jr., Machine, 25; R.R. curves, 48.
Wheeler & Wilson M'f'g Co., Sewing machines, 30, 111.
Wheeling, City of, School views, 128.
Whelen, R. P., Bits, 109.
Whistler, T., Life boat, 50.
White, Mrs. A., Bureau, frame, 92.
White, C. S., Ores, 126.
White, Clark, & Co., Pump, 41.
White, J. J., Fare box, 47.
White, Mrs. L. S., Confectionery, 98.
Whiteford, John, Moulding machine, 26.
Whitehead, Mrs. C. E., White lace, 89.
Whitesides, Mrs. E. G., Braiding, 89.
Whitman, Mrs. E. J., Scraper, 87; Buttons, 90.
Whitner, Mrs. Mary A. E., Multiscope, 91.
Whitney, A., & Sons, Car wheels, 47.
Whitney, Anne, Bronze bust, 91.
Whitney, A. H., Carved wood work, 97.
Whitney, B. D., Machines, 22, 29.
Whitney M'f'g Co., Sewing machines, 30.
Whitney, Miss, Pictures, 100.
Whiton, David E., Gear-cutting machines, 25.
Whittemore, D., Machines, 111.
Whittemore, Miss Jennie, Worsted picture, 89.
Whittier, Miss H. A., Box and tiles, 98.
Whittington, F. L., Wax flowers, 97.
Wicaco Screw & Mach. Works, Punches, 25.
Wickersham & Bro., Oil feeder, etc., 39.
Wiener & Co., Saddlery, 109.
Wier, Marshall Arthur, Water meter, etc., 55.
Wiggin, Mrs. Abby N., Buttonholes, 89.
Wiklund, W., Pump, 66.
Wilbraham, T., & Bros., Engines, etc., 42.
Wilcox & Gibbs Sewing Machine Co., 30.
Wilcox Tanning Co., Leather, 113.
Wilder, J. L., Harness, etc., 110.
Wildgoose, F. H., Steamboat model, 59.
Wilen, G. C., Boat, 50.
Wilhelm, Mrs. A. C., Screw button, 90.
Wilkie & Osborne, Sewing machines, 57.
Wilkinson, A. J., & Co., Lathe, 28.
Wilkinson, Miss G., Water colors, 98.
Wilkinson, Mrs. James A., Yarn, 87.
Wilkinson, J. P., & Bro., Leather, 112.
Willard, Mrs. Harriet J., Books, 91.
Willets, M., Drawing on glass, 96.
Willey, W. T., Minerals, 126.
Williams, Chas. B., Sons, Leather, 112.
Williams, C. H. & G. L., Leather, 114.
Williams, C. W., M'f'g Co., Machines, 57.
Williams, Mrs. E., Bedstead, 93.
Williams, Mrs. G. A., Leather table, 87.
Williams, G. P., Wheat, 129.
Williams, Mrs. J., Hanging basket, 98.
Williams, J. S., Tracks, 48; Wheat, 129.
Williams, J. V., Marl, 128.
Williams, Mary E., Paintings, 93.
Williams, R. P., Railroad crossings, 56.
Williams, S., & Son, Implements, 26.
Williams, S. S., & Co., Hod elevator, 42.
Williamson Bros., Portable engine, 34, 53.
Williamson, J. R., Sand, 127.
Willimantic Linen Co., Winding machines, 28.
Willis, C. E., Sewing-machine feed, 31.
Willoughby, J. D., Steam governor, 40; Pulsometer, 41; Scales, 46.
Wilsey, Mrs. A. W., Penknife work, 91.
Wilson, B. F., Valves, 35.
Wilson Bros. & Co., Architects, 145.
Wilson, Clarke, & Co., Pump, 58.
Wilson, G. W., Corn, 129.
Wilson, H., Oats, 129.
Wilson & Hughes Stone Co., Stone, 123.
Wilson, J. M., Architect Machinery Hall, 9.
Wilson, J. P., Vacuum pan, 57.
Wilson, L., Carbonate of iron, 126.
Wilson, L. R., Crayon, 96.
Wilson, Miss M., Penciling, 96.
Wilson, Mrs. H. C., Bouquet, 97.
Wilson, Mrs. R., Crayon, 96.
Wilson, Newton, & Co., Sewing machines, 55.
Wilson, R. F., Fly nets, 110.
Wilson Sewing Machine Co., 30.
Wilson, W. H., Firemen's hats, etc., 43.
Wilson, Walker, & Co., Leather, 116.
Wimpfheimer, Mrs. C., Loom, 30.
Winans, H. N., Boiler powder, 35.
Windmüller & Meynen, Spools, 62.
Windrim, J. H., Architect, 72.
Wingate, Mrs. J. F., Rag rug, 87.
Wisconsin Leather Co., Leather, 112, 115.
Wisconsin, Women's Com., Memorial, 91.
Wisner & Strong, Engine, 37.
Wiswall, H. M., Rotary pumps, 40.
Withrow, J., Marbles, 127.
Wladimir Tannery, Leather, 116.
Woelfel, F., Leather, 114.
Wolf, A. N., Water wheel, 36.
Wolf, M., Types, 70.
Wolf, S., Shoes, 116.
Wolfe, A., Sand, 127.
Wolfenden, Shore, & Co., Loom, 28, 29.
Woman's Art School, N. Y., Work, 90, 96.
Women's Executive Committee, Easel, 87; Seal, 88; Volume of Herald, 91.
Wood, A. M., Ochre, 128.
Wood, G., Leather, 115.
Wood, G. W., Lifting jack, 27.
Wood, J., Steam pump, 40; Frogs, 48.
Wood, J. W., Leak stopper, etc., 56.
Wood, Miss Martha J., Paintings, 94.
Wood, R. D., & Co., Hydrants, pipes, 44.
Wood, T., Star loom, 28.
Wood, W. D., & Co., Trimmings, 108.
Woodbury, J. A., Car wheels, 47.
Woodruff & Beaumont, Stop valve, 44.
Woodruff, A. H., Locomotive gear, 40.
Woodruff, J., Dampers, 39, 53.
Woods, B. O., & Co., Printing presses, 32.
Woods, G., & Co., Drying process, 31.
Woods, S. A., Machine Co., Machinery, 21.
Woodward, Laura, Painting, 93.
Woodward, T. B., Mills, 49.
Woolredge, A. M., Shoes, 108.
Worcester, E. J., & Co., Drills, 24.
Wormley, Mrs. A. E., Engravings, 96.
Worthington, H. P., Engine, 53.
Worthington & Sons, Stone, 123.
Wratislau, Miss M., Water colors, 101.
Wrigglesworth, W. J., Horse collar, etc., 110.
Wright, J., Motor, 36.
Wright, P., & Sons, Tools, 54.
Wright & Rogers, Locomotive, 36.
Wright, W., Boilers, etc., 55.
Wrigley, J., Jacquard loom, 28.
Wulstein, H., Granulator, 49.
Wunderlich, Reinhard, Leather, 114.
Wünschmann, R., Machine, 62.
Wyatt, Charles B., Bevel knife, 26.
Wyatt, J. L., Ship model, 51.
Wyman, J. D., Soldering iron, 28.
Wyman, L. A., Paint mill, 18.

Y.

Yale Lock Man'y, Hoisting machinery, 43, 55.
Yeager, D. A., Harness, 110.
Yeves, Carlos, Books, 135.
Yevleff, A., Skins, etc., 69.
Yohe, Mrs. D., Mat, 90.
York M'f'g Co., Washer, 31; Wheels, 36.
Yosefow Sugar M'f'g Co., Form, 70.
Yoster, S. H., Frames of paper cuttings, 97.
Young, Hugh, Stone-sawing machine, 26.
Young, J., Model, 128.
Young, J. & S., Separator, 49.
Young Ladies' Institute, Pupils' work, 100.
Young Ladies' Society, Blanket, etc., 89.
Young, William, Machine, 24; Pumps, 40.
Yule, G., Wool forming machines, 30.

Z.

Zaffarini, Cav. C., Machine, 67.
Zanini, P., Machine, 67.
Zantzinger, D. W., Steamship model, 51.
Zaun, J., & Son, Shoes, 107.
Zeigler Bros., Shoes, 107.
Zimmerman, Mrs. D., Bead work, 99.
Zimmermann, J., Needles, 62.
Zindgraf & Hohenadel, Paint mill, 18.
Zinovieff, A., Vamps, 116.
Zipp, P. C., Leather, 115.
Zoble, Mrs. S. G., Wood engraving, 96.
Zwietusch, O., Fire extinguisher, 44.

H.W. JOHNS' PATENT

ASBESTOS MATERIALS

Asbestos is a mineral possessing fibres like Silk or Flax, and cannot be destroyed by fire. It is found abundantly in various parts of this and other countries. Its uses are patented for the following and other materials for structural and mechanical purposes.

Roofing—Any color, for steep or flat roofs, in rolls ready for use.
Paints—All colors, ready for use, unexcelled in richness of color and unequaled in durability.
Steam Pipe and Boiler Coverings—The most effective non-conductors in use.
Steam Packing—Flat and round, all sizes—Indestructible, Self-lubricating.
Roof Coating for old tin, felt, and shingle roofs. **Fireproof Coating** for wooden buildings, boiler rooms, shingle roofs, etc. **Roof Paint** for tin roofs, iron and wood work. **Cements** for steam and gas fittings, repairing leaky roofs, etc. **Vermin-proof Lining** for carpets, deadening floors, sheathing felts, etc., etc.

All of these materials are prepared ready for use, and can be easily applied by any one. Liberal inducements to General Merchants, Dealers, *and large consumers*. ☞ Send for Samples, Illustrated Pamphlets, Price Lists, etc.

H. W. JOHNS, 87 Maiden Lane, N. Y.

ESTABLISHED 1858. *Patentee and Manufacturer.*

☞ **A full line of Asbestos Materials can be seen and full information obtained at Section No. F 9, Columns 64-65, Machinery Hall.**

The following, among thousands of well-known Manufacturers and others, have our Goods in use:

Denison Paper Manuf'g Co., Mechanic Falls, Maine. Robinson Manuf'g Co., Woolen Goods Oxford, Maine. Hon. E. A. Straw (Amoskeag Co.), Manchester, N. H. Ford & Kimball, Iron Manufacturers, Concord, N. H. Old Colony Iron Co., Taunton, Mass. Boston Rubber Shoe Co., Malden, Mass. A. & W. Sprague & Co., Manufacturers, Providence, R. I. Cheney Brothers, Silk Manufacturers, So. Manchester, Conn. T. Kingsford & Son (Oswego Starch Factory), Oswego, N. Y. Garner & Co., Print Works, Haverstraw, N. Y. E. Remington & Sons, Fire Arms, Ilion, N. Y. A. Walker, Warden (State Prison), Sing Sing, N. Y. Passaic Zinc Co., New York City. Henry Clausen, Brewery, New York City. Harper Brothers, Publishers, New York City. Manhattan Gas Co., New York City.

SHOW CASE OF SAMPLES IN AGRICULTURAL HALL

OF

Baugh's Standard Manures.

We supply Manufacturers, Dealers, and Farmers, in large or small quantities to suit, with the following Fertilizers and Chemical Supplies, on guaranteed analysis:

Baugh's Raw Bone Phosphate	Ammonia 3 to 4 per cent. Sol. Bone Phos. 20 to 24 "
Baugh's High Grade Manure for Tobacco and Grain	Ammonia 6 to 7 per cent. Potash 5 " 6 " " Sol. Bone Phos. 20 to 22 "
Baugh's A. A. Nitrogen	Ammonia 13½ to 15 per ct.
Baugh's Phospho-Fish Guano.	Ammonia 3 to 4 per cent. Sol. Bone Phos. 12 to 14 "
Baugh's High Grade Acid Phosphate	Sol. Phosphoric Acid 10 to 12 per cent.
Baugh's Pure Dissolved Bones	Pure Animal Bones and 66° Oil of Vitriol.
Baugh's Ammoniated Dissolved Animal Bones	Ammonia 3 to 4 per cent. Sol. Bone Phos. 18 to 20 "
Baugh's Pure Ground Raw Bones	Guaranteed Pure.
Baugh's Pure Bone Meal	Guaranteed Pure.
Philadelphia Ground Bone	Ammonia 4 per cent. Bone Phos. 44 "
No. 1 Fine Bone Dust	Ammonia 3 to 4 per cent. Bone Phos. 35 "
Ammoniated Estrella Guano	Ammonia 2 per cent. Potash 3 " Bone Phos. 40 "
Challenge Super Phosphate	Sol. Phosph'ic Acid 30 pr ct " Bone Phos. 66 "
German Potash Salts "Kainit"	Analysis furnished.
Pure Ground Land Plaster	Guaranteed Pure.
Sulphate of Potash	Analysis furnished.
Sulphate of Soda	Commercial.
Sulphate of Ammonia	24 per cent.
Nitrate of Soda	14 to 15 per cent. of Nitrogen
Muriate of Potash	83 per cent. Mur. Potash.
Agricultural Salt	Stained Liverpool.
Oil of Vitriol	66°.
Ground S. C. Guano	Kiln Dried.

☞ *Special attention given to filling orders for Goods by recipe formulas.*

BAUGH & SONS,

MANUFACTURERS and IMPORTERS,

20 South Delaware Ave., Philadelphia.

103 South Street, Baltimore.

E. P. BAUGH'S Patent Sectional Mills for Grinding Bones and Hard Substances can be seen in operation at No. 3609, Sec. A 8, columns Nos. 61 and 62 Machinery Hall.

CLIMAX

SUPERPHOSPHATE,

With over 3 per cent. Ammonia, and 9 to 11 per cent. Soluble Phosphoric Acid.

DEFIANCE SUPERPHOSPHATE,

With guarantee of 11 to 13 per cent. of Soluble Phosphoric Acid.

SUPPLIES FOR MAKERS OF FERTILIZERS

INCLUDING ALL AGRICULTURAL CHEMICALS.

GEO. E. WHITE,

159 FRONT STREET,

NEW YORK.

P. S.—The Fertilizers used on Experimental Farm of the Agricultural Bureau of Centennial Commission, at Schenck's Station, were purchased from GEO. E. WHITE.

CHARLES V. MAPES,

160 Front Street, New York.

HIGH GRADE MANURES.

MAPES' NITROGENIZED SUPER-PHOSPHATE,

A COMPLETE FERTILIZER FOR ALL CROPS.

"TWENTY-FOUR YEARS of practical success has established for it a reputation for uniformity in results unparalleled in the history of fertilizers."

Has received the "LARGE SILVER MEDAL" of the American Institute at New York, the highest awards of Agricultural Societies, and the indorsement of all the leading chemists and inspectors of fertilizers.

SEND FOR PAMPHLETS.

RECTIFIED PERUVIAN GUANO

CONSISTS ONLY OF No. 1 PERUVIAN GUANO, TREATED with SULPHURIC ACID.

Guaranteed Analysis—Soluble Phosphoric Acid, 10 per cent.; Ammonia, 10 per cent.; Potash, 2 per cent.

Agricultural Chemicals, High Grade Dissolved Bone, English Super-Phosphates, Fish Guano, Dried Blood, No. 1 Peruvian Guano, etc., etc.

(*Extract from N. Y. Mercantile Journal, March 4th, 1876.*)

"The Peruvian Guano sold by Mr. Charles V. Mapes is delivered direct from storehouses of the Government, and accompanied with official certificates identifying the lot and giving analysis of the cargo—signed by Dr. Wm. M. Habershaw. With this protection, and the well-known character of Mr. Mapes, the farmers and dealers can feel safe against any fraud being practised upon them in purchasing Peruvian Guano."

ESTABLISHED 1838.



HENRY A. DREER,

SEEDSMAN AND FLORIST,

714 CHESTNUT STREET, Philadelphia, Pa.

Seed Farm and Nursery, Riverton, New Jersey.

OFFERS THE LARGEST AND BEST SELECTED STOCK OF

VEGETABLE AND FLOWER SEEDS

To be found in America, embracing all the Home-grown as well as New and Rare Foreign Varieties.

The AMATEUR GARDENER AND FLORIST will find all the Novelties as they appear, obtained from reliable sources, and offered at fair and reasonable rates. The MARKET GARDENER may also obtain every variety suited to his wants, at a moderate price.

THE GREENHOUSE AND ORNAMENTAL DEPARTMENT

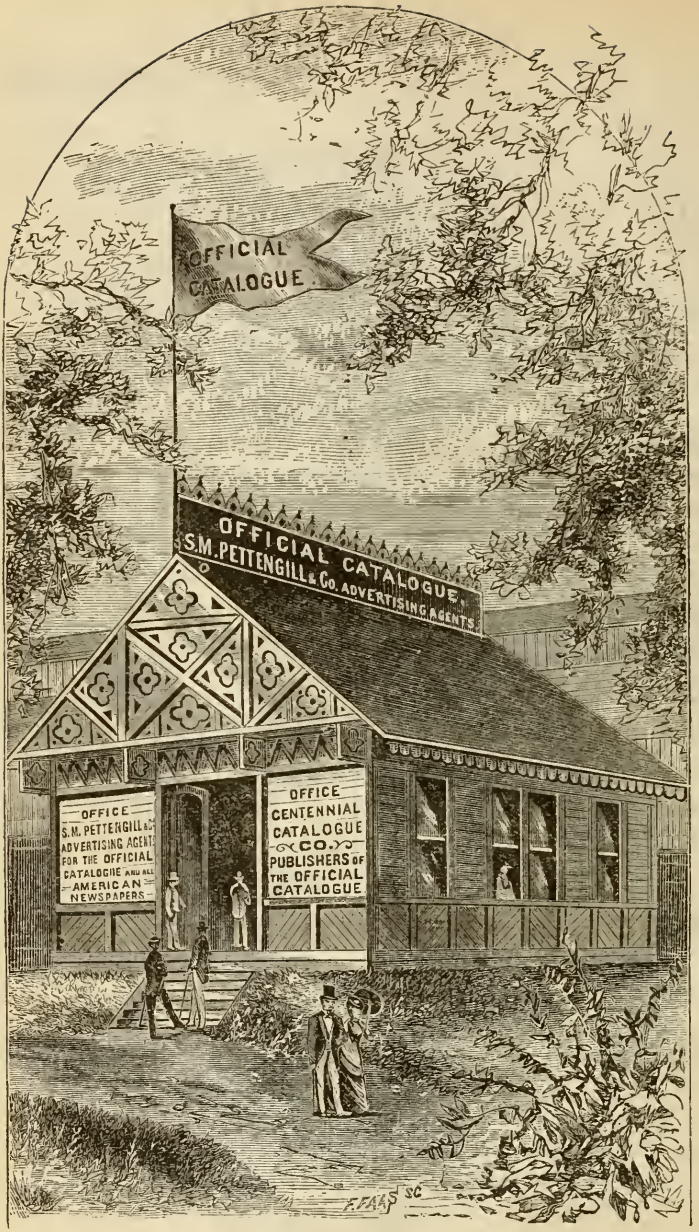
contains a large and well selected stock of Plants, occupying over Sixty Thousand square feet of Glass, for Hothouses, Greenhouses, and Propagating Frames.

BULBOUS FLOWER ROOTS.

We annually inport a large collection of the finest Double and Single Hyacinths, Tulips, Narcissus, Crocus, Jonquils, and other Bulbs for planting in the Autumn, a full descriptive catalogue of which is published on the first of August.

DREER'S GARDEN CALENDAR is published annually on the first of December, and contains select lists of Vegetables and Flower Seeds, Plants, Roses, Verbenas, Dahlias, Carnations, Geraniums, etc., with brief and practical directions for their culture, mailed to all applicants inclosing two 3-cent stamps for postage.

Wholesale Price List, for Dealers only, mailed on application.



BUILDING No. 41,

OCCUPIED JOINTLY BY THE

CENTENNIAL CATALOGUE COMPANY,

AND

S. M. Pettengill & Co., Newspaper Advertising Agents,

South of East End of Machinery Hall.

ADVERTISEMENTS taken at this office for the Official Catalogue and all newspapers of the United States and Canadas. The principal papers of the country kept on file for inspection and use of exhibitors and visitors generally.

CENTENNIAL CATALOGUE CO.

S. W. Cor. Fourth and Library Sts., Philadelphia,

PUBLISHERS OF THE

OFFICIAL CATALOGUE

OF THE

INTERNATIONAL EXHIBITION OF 1876.

This Company owns the exclusive right to publish, sell, and distribute the "*Official Catalogue of the International Exhibition of 1876,*" the work being printed under the direction of, and compiled from manuscript furnished by, the "U. S. Centennial Commission."

Advertisements taken on application to S. M. PETTENGILL & Co., Advertising Agents.

JOHN S. MORTON,
President.

MORDECAI D. EVANS,
Treasurer.

L. L. HYNEMAN,
Secretary.

S. HENRY NORRIS,
Solicitor.

JOHN R. NAGLE,
Publishing and Advertising Manager,
524 Market St., Philadelphia.

S. M. PETTENGILL & CO.,
Advertising Agents,
No. 701 Chestnut Street, Philade.phia,
No. 37 Park Row, New York,
No. 10 State Street, Boston,
Exhibition Grounds—South of East end of Machinery Hall, Building No. 41.

J. M. JOHNSON & SONS, Limited,
Sole European Agents,
No. 8 Castle St., Holborn, London.

DIRECTORS:

JOHN S. MORTON, WM. H. PENNELL,
M. ROSENBACH, STEPHEN F. WHITMAN,
GEORGE T. JONES, JOHN R. NAGLE,
JOSEPH HEILBRUN.

Office of the Company on Exhibition Grounds, Building No. 41, South of East end of Machinery Hall.



AGRICULTURAL BUILDING.

United States Centennial Commission.

INTERNATIONAL EXHIBITION.

1876

Official Catalogue.

PART IV.

AGRICULTURAL AND HORTICULTURAL HALLS AND ANNEXES.

DEPARTMENT VI.—AGRICULTURE.
DEPARTMENT VII.—HORTICULTURE.

REVISED EDITION.

PHILADELPHIA:
Published for the Centennial Catalogue Company
BY JOHN R. NAGLE AND COMPANY.
Printed at the Riverside Press, Cambridge, Mass.
1876.

Entered according to Act of Congress, in the year 1876, by the
UNITED STATES CENTENNIAL COMMISSION,
in the office of the Librarian of Congress, at Washington, D. C.

ALL RIGHTS RESERVED.

Centennial Catalogue Company Assignees of Copyright.

CONTENTS.

List of Buildings and Special Exhibits 6

Subject Index, National Exhibits 8

The Agricultural Building 9

Key to the Notation 9

Ground Plan of Agricultural Hall 10

Synopsis of the Classification 11

Classification of Department VI., Agriculture 12

Catalogue of the Department of Agriculture 15

Annexes and Special Exhibits in the Department of Agriculture 134

Stated Displays 141

Live Stock Circular 142

The Horticultural Building 147

Ground Plan of Horticultural Hall 148

Classification of Department VII., Horticulture 149

Catalogue of the Department of Horticulture 151

Statistical Appendix 163

BUILDINGS AND SPECIAL EXHIBITS WITHIN THE EXHIBITION GROUNDS.

[NOTE.—The buildings bear the numbers prefixed to them in this table, being the numbers adopted by the Centennial Guide Book Co. (Limited).]

Buildings South of the Avenue of the Republic.

No.		Part	Page
1.	Main Exhibition Building,	I.	23
2.	Machinery Hall,	III.	9
3.	Machine Shop,	III.	117
4.	American Boiler House,	III.	117
5.	Corliss Boiler House,	III.	117
6.	British Boiler House,	III.	117
7.	Shoe and Leather Exhibition Building,	III.	105
8.	Office Centennial Board of Finance,	III.	117
9.	Office U. S. Centennial Commission,	III.	117
10.	Centennial National Bank,	III.	117
11.	Weimer Machine Works,	III.	118
12.	Bartholdi Fountain	III.	146
13.	Catholic Total Abstinence Union Fountain,	III.	146
14.	Fuller, Warren, & Co., Heating Apparatus,	III.	118
15.	Gillender & Sons, Glassware Manufactory,	III.	118
16.	Camp of West Point Cadets,	III.	118
17.	Iron Pipe,	III.	118
18.	Liberty Stove Works,	III.	118
19.	Annex, Saw Mill,	III.	119
20.	Boiler House,	III.	119
21.	Railway Engine House,	III.	119
22.	St. Cecilia Organs,	III.	119
23.	Automatic Railway,	III.	119
24.	Monument—American Soldier,	III.	119
25.	Gunpowder Pile-Driver,	III.	119
26.	Jesse Star & Son, Iron Works,	III.	119
27.	West End Railway Offices,	III.	119
28.	Pneumatic Tubes,	III.	119
29.	New England Granite Co.'s Exhibit,	III.	120
30.	Railroad Crossings,	III.	120
31.	State of Nevada Quartz Mill,	III.	120
32.	Store House,	III.	120
33.	Friction Drum,	III.	120
34.	Stokes & Parrish, U. S. Hoisting Machine,	III.	120
35.	Chilean Amalgamating Machinery,	III.	120
36.	Campbell Printing Press,	III.	120
37.	Old Locomotive and Car,	III.	121
38.	Car House,	III.	121
39.	Police Station,	III.	121
40.	Averill Paint Co.,	III.	121
41.	Centennial Catalogue Co.,	III.	121
42.	Stokes & Parrish, Boiler House,	III.	121
43.	Ehret's Waterproof Roofing,	III.	121
44.	Tombstones,	III.	122
45.	Terra Cotta Pipe,	III.	122
46.	Mineral Annex, 1 and 2,	III.	122
47.	Fireproof Ventilated Buildings,	III.	122
48.	Swings,	III.	122
49.	Ornamental Stone Work,	III.	122

Buildings North of the Avenue of the Republic, and West of Belmont Av.

No.		Part	Page
51.	United States Government Building,	III.	73
51½.	Bartholdi Electric Light,	III.	122
52.	United States Hospital,	III.	73
52½.	Howe Monument,	III.	122
53.	United States Hospital Tent,	III.	73
53½.	Jerusalem Bazaar,	III.	122
54.	United States Laboratory,	III.	73
54½.	Office Philadelphia "Times,"	III.	123
55.	Pennsylvania State Building,	III.	123
55½.	Hungarian Wine Pavilion,	III.	123
56.	Ohio State Building,	III.	123
56½.	Police Station,	III.	124
57.	Indiana State Building,	III.	124
57½.	Sponge Fishers of Turkey,	III.	124
58.	Illinois State Building,	III.	124
58½.	Bethlehem Bazaar,	III.	124
59.	Wisconsin State Building,	III.	124
59½.	Fog Horn and Bell,	III.	124
60.	Michigan State Building,	III.	124
61.	New Hampshire State Building,	III.	125
62.	Connecticut State Building,	III.	125
63.	Massachusetts State Building,	III.	125
64.	Delaware State Building,	III.	125
65.	Maryland State Building,	III.	125
66.	Arkansas State Building,	III.	125
67.	Japanese Dwelling,	III.	125
68.	West Virginia State Building,	III.	125
69.	Canadian Log House,	IV.	134
70.	Missouri State Building,	III.	130
71.	British Government Building,	III.	130
72.	British Government Building,	III.	130
73.	British Government Building,	III.	130
74.	New York State Building,	III.	130
75.	Lienard's Relief Plans, Paris, Jerusalem, Italy, etc.,	III.	130
76.	Pop-corn Stand,	III.	131
77.	Cigar Stand,	III.	131
78.	Soda Water Stand,	III.	131
79.	Tunisian Café and Bazaar,	III.	131
80.	Columbus Monument,	III.	131
81.	Drinking Fountains,	III.	131
82.	Restaurant "Trois Frères Provençaux,"	III.	131
83.	Office New York "Tribune,"	III.	131
84.	World's Ticket Office, Cook, Son, & Jenkins,	III.	131
85.	Loiseau's Pressed Fuel Company,	III.	132
86.	Spanish Government Buildings,	III.	132
87.	United States Signal Office,	III.	141
88.	Tennessee State Building,	III.	141
89.	Mississippi State Building,	III.	142
90.	George's Hill Restaurant,	III.	142
91.	Bishop Allen Monument,	III.	142

BUILDINGS AND SPECIAL EXHIBITS WITHIN THE EXHIBITION GROUNDS.

[NOTE.—Descriptions of the Buildings will be found at the indicated part and page of the Official Catalogue.]

Buildings North of the Avenue of the Republic, and West of Belmont Av.

No.		Part	Page
92.	Office of the Boston "Advertiser" and Boston "Herald,"	III.	142
93.	Rowell's Newspaper Exhibition Building,	III.	142
94.	California State Building,	III.	142
95.	Centennial Fire Patrol, No. 1,	III.	142
96.	Turkish Café,	III.	143
97.	Office Frank Leslie's Publications,	III.	143
98.	Iowa State Building,	III.	143
99.	Rhode Island State Building,	III.	143
100.	Vermont State Building,	III.	143

Buildings East of Belmont Avenue, and South of Fountain Avenue.

101.	Art Gallery,	II.	9
102.	Art Gallery Annex,	II.	10
103.	B'nai B'rith Monument of Religious Liberty,	III.	143
104.	Photographic Art Building,	II.	137
105.	Vienna Bakery and Coffee House,	III.	143
106.	Principal Annex to Main Exhibition Building,	I.	374
107.	Swedish Government Building,	III.	144
108.	Japanese Bazaar,	III.	144
109.	The Judges' Hall,	III.	144
110.	Centennial Photographic Co.,	III.	144
111.	Sheet-metal Pavilion,	III.	144
112.	German Government Building,	III.	144
113.	Railroad Ticket Office,	III.	144
114.	Office United States Centennial Commission,	III.	145
115.	Brazilian Government Build'g,	III.	145
116.	The Dairy,	III.	145
117.	Restaurant "La Fayette,"	III.	145
118.	House of Public Comfort,	III.	145
119.	Empire Transportation Co.,	III.	145
120.	French Government Building,	III.	145
121.	Centennial Fire Patrol, No. 2,	III.	145
122.	Penn'a Educational Building	III	146
123.	Telegraph Office,	III	147
124.	American Fusee Company,	III.	147
125.	Klautscheck, Thomas, & Stewart's Glass Magazine,	III.	147
126.	Moorish Villa,	III.	147
127.	American Bible Society,	III.	147
128.	Hunter's Camp,	III.	147
129.	Office Water Department,	III.	148
130.	Soda Water Stand,	III.	148
131.	Cigar Stands,	III.	148
132.	Singer's Sewing Machines,	III.	148
133.	Centennial Medical Departm't,	III.	148
134.	Portugal Government Building,	III.	148
135.	Bankers' Building,	III.	148
136.	French Glass Exhibit,	III.	149
137.	Kindergarten,	III.	149
138.	Centennial Police Station,	III.	149
139.	Philadelphia City Building,	III.	149
140.	Music Pavilion,	III.	149
141.	Burial Caskets,	III.	149
142.	Perforated Metal Building,	III.	149
143.	Rubber Roofing,	III.	149
144.	Cuban Acclimation Office,	III.	149
145.	Naval Group,	III.	149
146.	The Dying Lioness,	III.	149

Buildings East of Belmont Avenue, and North of Fountain Avenue.

151.	Horticultural Hall,	IV.	147
152.	Agricultural Hall,	IV.	9
153.	The Women's Pavilion,	III.	85
154.	The Women's School House,	III.	150
155.	New Jersey State Building,	III.	150
156.	Restaurant of the South,	III.	150
157.	Kansas and Colorado State Building,	III.	150
158.	New England Farmer's Home 100 years ago, and Modern Kitchen,	III.	150
159.	Great American Restaurant,	III.	150
160.	German Restaurant,	III.	151
161.	Tea and Coffee Press,	III.	151
162.	Butter and Cheese Factory,	III.	151
163.	Soda Water Stand,	III.	151
164.	Cigar Stand,	III.	151
165.	Farm Wagon Building,	IV.	135
166.	Pomological Building,	IV.	135
167.	Brewers' Building,	IV.	136
168.	Model House Apiary,	IV.	140
169.	Guano Company,	III.	151
170.	Special Flower Exhibit Building,	III.	170
171.	Wind Mills,	IV.	140
172.	Office "Ohio Farmer,"	IV.	140
173.	Hay Press,	III.	152
174.	Police Station,	III.	152
175.	Elevated Railroad,	III.	152
176.	Boiler House,	III.	152
177.	Virginia State Building,	III.	152
178.	Protective Fire Apparatus,	III.	152
179.	Pop-corn Stands,	III.	152
180.	J. L. Mott Co. Fountain,	III.	152

NATIONS.	DEPARTMENT VI. AGRICULTURE. Arboriculture and Forest Products.	Pomology.	Agricultural Products.	Land Animals.	Water Animals, Fish Culture, and Apparatus.	Animal and Vegetable Products.	Textile Substances of Vegetable or Animal origin.	Machines, Implements, and Processes of Manufacture.	Agricultural Engineering and Administration.	Tillage and General Management.	DEPT. VII. HORTICULTURE. Ornamental Trees, Shrubs, and Flowers.	Hot-houses, Conservatories, Graperies.	Garden Tools, Accessories of Gardening.	Garden Designing, Construction and Management.	Statistics of Exhibiting Countries.	Commissioners to the Exhibition.
United States	15 135	15 135	15 136	18	18	19 136	24	25 135 137	36 135 138	38	151 153 160	152	152 154	153 154	163	.
Great Britain	40	. .	40	. .	. .	40 139	41	41	139	. .	156	. .	156	. .	169	173
‡New Zealand	. .	. .	42	. .	. .	. .	42	. .	. .	. .	156	. .	. .	. .	174	177
‡New South Wales	. .	. .	. .	. .	. .	42	. .	. .	. .	. .	. .	. .	. .	. .	178	179
‡Victoria	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	181	182
‡S. Australia	. .	. .	. .	. .	. .	. .	. .	43	. .	. .	. .	. .	. .	. .	183	184
‡Cape of Good Hope	. .	. .	43	. .	. .	43	43	. .	. .	. .	. .	. .	. .	. .	185	186
‡Jamaica	. .	43	. .	. .	. .	. .	. .	. .	. .	. .	. .	156	. .	. .	187	187
‡Bahamas	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	188	188
‡Bermudas	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	189	190
‡British Guiana	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	190	191
‡Ceylon	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	191	. .
‡Straights Settlements	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	192	. .
‡Gold Coast	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	192	. .
‡Mauritius	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	193	. .
‡Queensland	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	194	195
‡Seychelles Archipelago	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	196	. .
‡Tasmania	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	196	193
‡Trinidad	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	198	. .
‡India	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	199	. .
Canada	44 134	44	44	44	44	45 139	45	46	46	. .	. .	. .	157	. .	202	204
*France	48	48	48	. .	48	49	51	51	52	. .	157	157	157	157	205	209
Germany	53	. .	53 139	. .	. .	53	54	54	54	. .	. .	. .	. .	158	210	215
Austria	55	55	55	. .	55	55	56	56	56	. .	. .	. .	. .	158	216	221
‡Switzerland	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	222	225
Belgium	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	226	228
Netherlands	57	. .	57	. .	57	57	. .	. .	. .	. .	158	. .	. .	158	230	234
Denmark	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	235	236
Sweden	59	. .	59	. .	59	59	. .	60	60	. .	. .	. .	158	. .	237	240
Norway	61	. .	61	61	61	61	. .	62	62	. .	. .	. .	. .	. .	241	243
Italy	63	63	63	. .	63	63	66	67	67	. .	. .	. .	159	. .	244	249
†Egypt	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	250	252
Tunis	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	253	253
‡Orange Free State	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	254	255
‡Luxemburg	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	159	. .	. .	. .	256	. .
‡China	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	256	257
Japan	128	. .	128	. .	128	129	129	. .	129	. .	129	. .	129	129	258	259
‡Hawaii	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	159	. .	. .	. .	260	261
‖Brazil	68	. .	68	71	72	72	75	75	75	. .	. .	. .	. .	. .	262	263
Argentine Republic	76	. .	77	81	81	81	86	. .	88	. .	159	. .	. .	159	264	265
‡Chili	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	266	267
‡Peru	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	268	270
‡Mexico	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	271	274
†Liberia	. .	. .	88	. .	. .	88	88	. .	. .	. .	. .	. .	. .	. .	275	. .
Spain	. .	88*a*	88*c*	88*n*	88*n*	88*o*	88*hh*	88*jj*	88*jj*	88*jj*	160	160	. .	160	277	280
Philippine Islands	130	130	130	131	131	131	132	133	. .	. .	160	. .	. .	. .	. .	. .
Portugal	89	90	92	. .	99	99	120	. .	122	. .	. .	. .	. .	. .	281	284
‡Turkey	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	286	288
Russia	123	123	123	. .	124	124	126	127	127	. .	. .	. .	. .	. .	289	294

* Metallurgical exhibit of France, page 48.
† Metallurgical exhibit of Liberia, page 88.
‡ Countries marked thus, have Agricultural exhibits which are installed in the Main Building and catalogued in Part I.
‖ A portion of the Chemical exhibit of Brazil, page 75.

No. 152. AGRICULTURAL HALL.

Size, parallelogram, 820 by 540 feet.

Architect, JAMES H. WINDRIM, *Philadelphia.*

Contractor, PHILIP QUIGLEY, *Wilmington, Del.*

Wrought iron furnished by ALLISON & SONS, *Philadelphia.*

Erectors, BELL BROTHERS.

THE Agricultural Exhibition Building stands north of Horticultural Hall, on the eastern side of Belmont avenue. A novel combination of materials is illustrated in its construction. It consists of a long nave crossed by three transepts, all composed of Howe truss arches of Gothic form. The four courts inclosed between the nave and transepts, as also the four spaces at the corners of the building, having the nave and transepts for their sides, are roofed in and form spaces for exhibits. The building covers an area of above ten acres. Stock yards for the exhibition of horses, cattle, sheep, swine, poultry, etc., are in the vicinity of the exhibition grounds.

The contract was made July 26th, 1875, and the building was begun in September 1875, and finished in April, 1876. It cost $260,000.

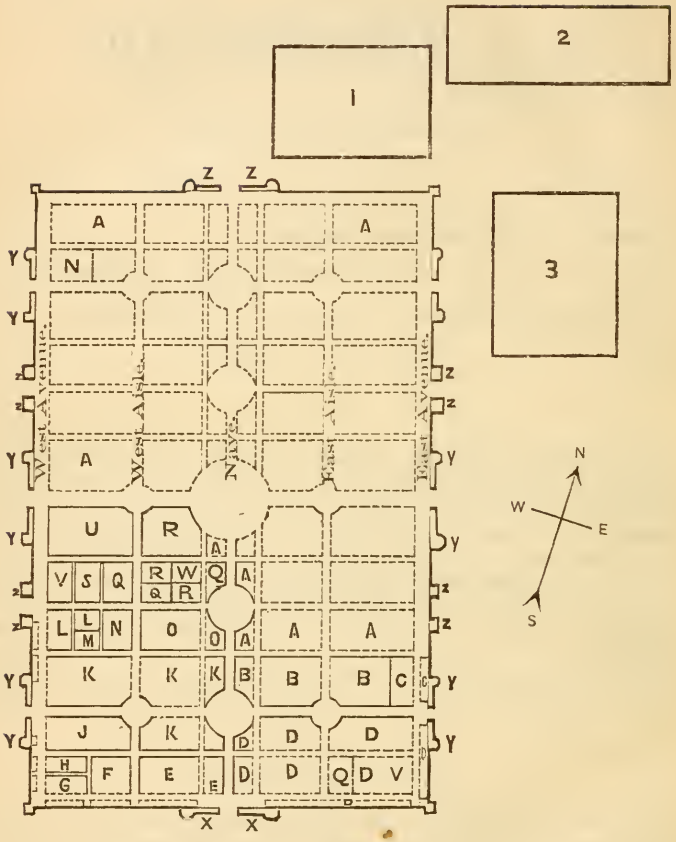
KEY TO THE NOTATION.

THE location of objects in the Agricultural Building is shown by a letter and figure, indicating the nearest column of the building. The letters—A, B, C, to T—designate the successive ranges of columns, proceeding eastward from the western wall across the width of the building; the figures, the number of the column in each range, counting northwardly from the southern wall, the entire length of the building, from 1 to 28. Thus C 5 is the column in the third range from the west, and the fifth from the southern end of the building. The northeasternmost column is T 28.

The class of the classification (see pages 12–14) to which each exhibit belongs is indicated by the small figures at the end of the line.

AGRICULTURAL HALL.

Scale, 225 ft. to 1 in.



A *United States.*
B *Canada.*
C *Liberia.*
D *England.*
E *Germany.*
F *Austria.*
G *Japan.*
H *Venezuela.*
J *Netherlands.*
K *France.*
L *Sweden.*
M *Denmark.*
N *Norway.*
O *Brazil.*
P *Belgium.*
Q *Portugal.*
R *Spain and Phil. Islands.*
S *Argentine Republic.*
U *Russia.*
V *Italy.*
W *Mexico.*
X *Dept. of Public Comfort.*
Y *Water-closets.*
Z *Offices.*
1. Wagon Building.
2. Brewers' Building.
3. Pomological Building.

Total Length, 540 ft. *Width, 320 ft.* *Height, 75 ft.*

SYNOPSIS OF THE CLASSIFICATION.

LOCATION.	DEPARTMENTS.	CLASSES.	GROUPS.
Main Building.	I. Mining and Metallurgy.	100—109	Minerals, Ores, Stone, Mining Products.
		110—119	Metallurgical Products.
		120—129	Mining Engineering.
	II. Manufactures.	200—205	Chemical Manufactures.
		206—216	Ceramics, Pottery, Porcelain, Glass, etc.
		217—227	Furniture, etc.
		228—234	Yarns and Woven Goods of Vegetable or Mineral Materials.
		235—241	Woven and Felted Goods of Wool, etc.
		242—249	Silk and Silk Fabrics.
		250—257	Clothing, Jewelry, etc.
		258—264	Paper, Blank Books, Stationery.
		265—271	Weapons, etc.
		272—279	Medicine, Surgery, Prothesis.
		280—284	Hardware, Edge Tools, Cutlery, and Metallic Products.
		285—291	Fabrics of Vegetable, Animal, or Mineral Materials.
		292—296	Carriages, Vehicles, and Accessories.
	III. Education and Science	300—309	Educational Systems, Methods, and Libraries.
		310—319	Institutions and Organizations.
		320—329	Scientific and Philosophical Instruments and Methods.
		330—339	Engineering, Architecture, Maps, etc.
		340—349	Physical, Social, and Moral Condition of Man.
Art Gallery.	IV. Art.	400—409	Sculpture.
		410—419	Painting.
		420—429	Engraving and Lithography.
		430—439	Photography.
		440—449	Industrial and Architectural Designs, etc.
		450—459	Ceramic Decorations, Mosaics, etc.
Machinery Building.	V. Machinery.	500—509	Machines, Tools, etc., of Mining, Chemistry, etc.
		510—519	Machines and Tools for working Metal, Wood, and Stone.
		520—529	Machines and Implements of Spinning, Weaving, etc.
		530—539	Machines, etc., used in Sewing, Making Clothing, etc.
		540—549	Machines for Printing, Making Books, Paper Working, etc.
		550—559	Motors, Power Generators, etc.
		560—569	Hydraulic and Pneumatic Apparatus.
		570—579	Railway Plant, Rolling Stock, etc.
		580—589	Machinery used in Preparing Agricultural Products.
		590—599	Aerial, Pneumatic, and Water Transportation.
			Machinery, and Apparatus, especially adapted to the requirements of the Exhibition.
Agricultural Building.	VI. Agriculture.	600—609	Arboriculture and Forest Products.
		610—619	Pomology.
		620—629	Agricultural Products.
		630—639	Land Animals.
		640—649	Marine Animals, Fish Culture, and Apparatus.
		650—662	Animal and Vegetable Products.
		665—669	Textile Substances of Vegetable or Animal origin.
		670—679	Machines, Implements, and Processes of Manufacture.
		680—689	Agricultural Engineering and Administration.
		690—699	Tillage and General Management.
Horticultural Building.	VII. Horticulture.	700—709	Ornamental Trees, Shrubs, and Flowers.
		710—719	Hot Houses, Conservatories, Graperies.
		720—729	Garden Tools, Accessories of Gardening.
		730—739	Garden Designing, Construction, and Management.

CLASSIFICATION.

DEPARTMENT VI.—AGRICULTURE.

ARBORICULTURE AND FOREST PRODUCTS.

CLASS 600.—Timber and trunks of trees, entire or in transverse or truncated sections, with specimens of barks, leaves, flowers, seed vessels, and seed.

Masts, spars, knees, longitudinal sections of trees, railway ties, ship timber, lumber roughly sawn; as planks, shingles, lath, and staves.

Timber and lumber prepared in various ways to resist decay and combustion; as by injection of salts of copper and zinc.

CLASS 601.—Ornamental woods used in decorating and for furniture; as veneers of mahogany, rosewood, ebony, walnut, maple, and madrona.

CLASS 602.—Dyewoods, barks, and galls for coloring and tanning.

CLASS 603.—Gums, resins, caoutchouc, gutta percha, vegetable wax.

CLASS 604.—Lichens, mosses, fungi, pulu, ferns.

CLASS 605.—Seeds, nuts, etc., for food and ornamental purposes.

CLASS 606.—Forestry.—Illustrations of the art of planting, managing, and protecting forests. Statistics.

CLASS 607.—Fruit trees and shrubs.

POMOLOGY.

CLASS 610.—Fruits of temperate and semi-tropical regions; as apples, pears, quinces, peaches, nectarines, apricots, plums, grapes, cherries, strawberries, and melons.

CLASS 611.—Tropical fruits and nuts, oranges, bananas, plantains, lemons, pine-apples, pomegranates, figs, cocoanuts.

AGRICULTURAL PRODUCTS.

CLASS 620.—Cereals, grasses, and forage plants.

CLASS 621.—Leguminous plants and esculent vegetables.

CLASS 622.—Roots and tubers.

CLASS 623.—Tobacco, hops, tea, coffee, spices, condiments, herbs.

CLASS 624.—Seeds and seed vessels.

LAND ANIMALS.

CLASS 630.—Horses, asses, mules.

CLASS 631.—Horned cattle.

CLASS 632.—Sheep.

CLASS 633.—Goats, alpaca, llama, camel.

CLASS 634.—Swine.

CLASS 635.—Poultry and birds.

CLASS 636.—Dogs and cats.

CLASS 637.—Wild animals.

CLASS 638.—Insects, useful and injurious. Honey bees, cochineal, silk-worms.

MARINE ANIMALS, FISH CULTURE, AND APPARATUS.

CLASS 640.—Marine mammals.—Seals, cetaceans, etc., specimens living in aquaria, or stuffed, salted, preserved in alcohol, or otherwise.

CLASS 641.—Fishes, living or preserved.

CLASS 642.—Pickled fish, and parts of fish used for food.

CLASS 643.—Crustaceans, echinoderms, beche de mer.

CLASS 644.—Mollusks, oysters, clams, etc., used for food.

CLASS 645.—Shells, corals, and pearls.

CLASS 646.—Whalebone, shagreen, fish-glue, isinglass, sounds, fish-oil.

CLASS 647.—Instruments and apparatus of fishing.—Nets, baskets, hooks, and other apparatus used in catching fish.

CLASS 648.—Fish culture.—Aquaria, hatching pools, vessels for transporting roe and spawn, and other apparatus used in fish breeding, culture, or preservation.

ANIMAL AND VEGETABLE PRODUCTS.

(Used as food or as materials.)

CLASS 650.—Sponges, seaweed, and other growths used for food or in the arts.

CLASS 651.—The dairy.—Milk, cream, butter, cheese.

CLASS 652.—Hides, furs, and leather, tallow, oil, and lard, ivory, bone, horn, glue.

CLASS 653.—Eggs, feathers, down.

CLASS 654.—Honey and wax.

CLASS 655.—Animal perfumes; as musk, civet, ambergris.

CLASS 656.—Preserved meats, vegetables, and fruits. Dried, or in cans or jars. Meat and vegetable extracts.

CLASS 657.—Flour; crushed and ground cereals, decorticated grains.

CLASS 658.—Starch and similar products.

CLASS 659.—Sugar and syrups.

CLASS 660.—Wines, alcohol, and malt liquors.

CLASS 661.—Bread, biscuits, crackers, cakes, confectionery, cocoa, chocolate, etc.

CLASS 662.—Vegetable oils, oil cake.

TEXTILE SUBSTANCES OF VEGETABLE OR ANIMAL ORIGIN.

CLASS 665.—Cotton on the stem, in the boll, ginned, and baled.

CLASS 666.—Hemp, flax, jute, ramie, etc., in primitive forms and in all stages of preparation for spinning.

CLASS 667.—Wool in the fleece, carded, and in bales.

CLASS 668.—Silk in the cocoon and reeled.

CLASS 669.—Hair, bristles.

MACHINES, IMPLEMENTS, AND PROCESSES OF MANUFACTURE.

CLASS 670.—Tillage.—Manual implements, spades, hoes, rakes. Animal power machinery, plows, cultivators, horse-hoes, clod-crushers, rollers, harrows. Steam power machinery, plows, breakers, harrows, cultivators.

CLASS 671.—Planting.—Manual implements, corn-planters and hand-drills. Animal power machinery, grain and manure drills, corn and cotton planters. Steam power machinery, grain and manure drills.

CLASS 672.—Harvesting.—Manual implements; grain-cradles, sickles, reaping-hooks. Animal power machinery, reapers and headers. Mowers, tedders, rakes, hay elevators, and hay loaders.

Potato diggers.

CLASS 673.—Preparatory to marketing.—Thrashers, clover-hullers, corn-shellers, winnowers, hay, cotton, flax, jute, ramie, wine, oil, and sugar making apparatus. Cleaners and smutters. Horse powers.

CLASS 674.—Applicable to farm economy.—Portable and stationary engines, chaffers, hay and feed cutters, slicers, pulpers, corn mills, farm boilers and steamers, incubators, edged tools, mills, meat choppers.

CLASS 675.—Dairy fittings and appliances.—Churns for hand and power, butter-workers, cans and pails, cheese-presses, vats, and apparatus, ice-cream freezers, cedar-ware.

AGRICULTURAL ENGINEERING AND ADMINISTRATION.

CLASS 680.—Laying out and improving farms.—Clearing (stump extractors), construction of roads, draining, irrigating, models of fences, gates, drains, out-falls, dams, embankments, irrigating machinery, stack building and thatching.

CLASS 681.—Commercial fertilizers, phosphatic, ammoniacal, calcareous, etc.

CLASS 682.—Transportation.—Wagons, carts, sleds, harness, yokes, traction engines, and apparatus for road making and excavating.

CLASS 683.—Farm buildings.—Models and drawings of farm houses and tenements, barns, stables, hop-houses, fruit-driers, ice-houses, windmills, granaries, barracks, apiaries, cocooneries, aviaries, abattoirs, and dairies.

TILLAGE AND GENERAL MANAGEMENT.

CLASS 690.—Systems of planting and cultivation.

CLASS 691.—Systems of draining and application of manures.

CLASS 692.—Systems of breeding and stock feeding, training.

CLASS 693.—Veterinary surgery and appliances.

INDEX TO ADVERTISEMENTS.

PAGE

Asbestos Materials.....Facing third page of cover.
Baugh & Sons.....Third page of cover
Bliss, B. K., & Sons..... 22
Blatchley, Charles G..... 22
Centennial Restaurant.....161
Corry & Co.....161
Dreer, Henry A.....Facing second page of cover.
Drown, W. A., & Co..... 15
French Restaurant.....161
Gloucester Iron Works..... 23
Graham, Emlen & Passmore..... 23
Haseltine Galleries..... 15
Higgin, Thomas, & Co.....161
Hooper, Cleeve, Jr.....161
Landreth, David, & Sons..... 15
Pennsylvania Rail Road.....154
The Sun Newspaper.....155
The American Newspaper Union.....160
West Philadelphia Passenger Railway Company.....Second page of cover.
Wanamaker's Ready Made Clothing.....Fourth page of cover.

DAVID LANDRETH & SONS'

Agricultural Warehouse,

21 and 23 South Sixth St., Philadelphia.

SEED FARMS:

PENNSYLVANIA, NEW JERSEY, VIRGINIA, WISCONSIN.

ESTABLISHED 1810.

W. A. BROWN & CO.

SUPERIOR

UMBRELLAS

AND

PARASOLS.

Manufactories in Philadelphia.



TRADE-MARK.

WAREROOMS:

246 Market Street,
PHILADELPHIA.

498 & 500 Broadway,
NEW YORK.



HASELTINE GALLERIES,

1125 and 1127 Chestnut St., Philadelphia.

UNITED STATES.

Forest Products, Pomology, Agricultural Products.

Arboriculture and Forest Products.

1 **Begg, Jonathan, Gilroy, Cal.**—Collection of coniferæ of the Pacific Coast. E 25. 600

2 **Peirce, Milton P., Wenonah, N. J.**—Native wood. E 26. 600

3 **Western North Carolina Land Company, Charlotte, N. C.**; branch office, 32 S. Third st , Philada.—Lands heavily wooded, rich in minerals, and well-adapted to grazing and agricultural purposes. Hard and soft woods in variety, and of gigantic growth; medicinal herbs, magnetic and hematite iron ores, manganese, gold, mica, etc. E 19. 600

4 **State of Indiana.**—Timber, all kinds found in the State. G 20. 600

4*a* **Norcross, Kent, & Co., Philadelphia, Pa.**—Shingles and logs. F 26. 600

5 **State Board of Iowa (collective exhibit), Fairfield, Iowa.**—Woods, native and cultivated; wood seeds, soils. C 15. 600

5*a* **Rowand, Hillman, & Son, Kirkwood, N. J.**—Charcoal. E 26. 600

6 **Graham, Dorsett, & Co., New York, N. Y.**—Cabinet woods. F 28. 600

6*a* **State of New Jersey.** — Native woods. E 17–18. 600

6*b* **State of Wisconsin.**—Forest products. F 20–21. 600

6*c* **New Hampshire State Centennial Board.**—Native woods. E 20–21. 600

6*d* **Land Department Central Pacific R. R. Co.**—Woods. B 15 *to* 19. 600

7 **Woods, Perry, & Co., Cleveland, Ohio.**—White pine lumber. F 25. 600

8 **State of Oregon, Portland, Oregon.** —Native woods, medicine roots, and bark; shingles. E 22. 600

9 **Eastern Burnettizing Co., Boston, Mass.**—Burnettized lumber for bridges, wharves, railroads, and all positions where wood is liable to decay. F 26. 600

10 **State of Delaware (collective exhibit), Dover, Del.**—Timber in the rough and dressed. F 17. 600

11 **Albemarle Swamp Land Co., North Carolina.**—Cedar and cypress shingles, staves, etc. F 26. 600

12 **Davis, Wire, & Co., North Carolina.** —Ribbed cedar and cypress shingles. F 28. 600

13 **State of West Virginia (collective exhibit).**—Forest products. F 19. 600

14 **Gove, E., Bath, Maine.**—Basswood panels. F 28. 601

14*a* **Cross & Mehling, Grand Rapids, Mich.**—Imitation of walnut burl, etc. E 26. 601

14*b* **Macatee & Bro., Front Royal, Va.** —Ground sumac. F 28. 602

14*c* **Williams, R. H., Milford, Del.**—Quercitron bark. F 26. 602

15 **Burk, William B., & Co., Philadelphia, Pa.**—Corks and sponges. E 25. 603

16 **Smythe, Earle, & Co., New York, N. Y.**—Crude elastic gums, with botanical specimens of same. E 28. 603

16*a* **Day, Austin G., Seymour, Conn.**—India-rubber producing plants, from tropical countries; crude India-rubber; crude kerite, or substitute for rubber. H 27–28. 603

17 **Butz, Alfred L., Philadelphia, Pa.**—Machine and hand-cut corks. E 25. 603

17*a* **Delta Moss Co., New Orleans, La.** —Southern moss. E 25. 604

18 **Michigan State Agricultural College** (collective exhibit).—Forestry. E 25. 606

Pomology.

19 **Atlantic Co. for the Culture of Cranberries, Weymouth, N. J.**—Cranberries, natural and preserved. J 28. 610

20 **State Board of Iowa, Fairfield, Iowa.** —Apples and pears in wax models. C 15. 610

20*a* **Bannihe, John H., Egg Harbor City, N. J.**—Strawberries and plants; grapes. K 14. 610

21 **Collings, E. Z., Waterford, N. J.**—Cranberries in jars, showing different varieties. C 20. 610

21*a* **West Jersey Land & Cranberry Co., Atco, N. J.**—Cranberries and vines. C 20. 610

21*b* **Michigan Pomological Society, Detroit, Mich.**—Apples. (*Nave of Agricultural Building.*) 610

21*c* **Bonzano, H., New Orleans, La.**—Pecan nuts. H 28. 611

Agricultural Products.

22 **State Board of Iowa, Fairfield, Iowa.** —Corn, small grains, grass seeds, vegetable seeds, etc. C 15. 620

23 **Branson, David H., Guthrieville, Pa.** —Indian corn. N 10–11. 620

24 **Beeson, Jacob, & Co., Detroit, Mich.** —Samples of grain. J 17. 620

25 **State of Massachusetts (collective exhibit), Boston, Mass.** — Agricultural products. E *and* F 23. 620

26 **Possiponti, Angola, Harrisburg, Pa.** —Straw for the manufacture of strawgoods. E 15. 620

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Agricultural Products.

27 Thompson, C. B., Chillicothe, Ohio. —Broom corn. F 15. 620

27*a* Schaffer, William L., Philadelphia, Pa.—Maize and sheaf. E 16. 620

27*b* Western Washington Industrial Association, Philadelphia, Pa.—Grains. D 20. 620

27*c* Seneca County Agricultural Society, Geneva, N. Y.—Grains, grass, seeds, etc. F 16. 620

27*d* New Hampshire State Centennial Board. E 20–21.
a Corn, wheat, barley, rye, oats, buckwheat, peas, beans, grasses, etc. 620
b Potatoes, vegetables. 622

27*e* State of Wisconsin.—Agricultural products. F 20–21. 620

28 U. S. Hullers Oat Co., Williamsport, Pa.—Oats without hull, oat-flour, and feed. H 15. 620

28*a* Culbertson, J., Brandon, Miss.—Rice and corn. F 15. 620

28*b* Schoonmaker, Henry, Cedar Hill, N. Y.—Cereals. H 15. 620

28*c* Hornly, Alex., Craigville, N. Y.—Cereals. G 26. 620

28*d* Land Department Central Pacific R. R. Co.—Grain. B 15–19. 620

28*e* Talmadge, Dan., Sons, New York, N. Y.—Carolina rice. G 16. 620

28*f* Lachicotte, P. R., & Sons, Georgetown, S. C.—Carolina rice. H 16. 620

28*g* Smith, J. C., Chicago, Ill.—Variety of grains raised in the State. G 22. 620

28*h* Mohawk & Hudson Manufacturing Co., Hartford, N. Y.—Pressed hay. S 8. 620

28*i* Montana Territory, Montana.—Cereals. G 15. 620

29 State of Indiana (collective exhibit). G 20.
a White, red, and amber wheat, oats, rye, barley, Indian corn, grass-seed, etc. 620
b Cloverseed, white and colored, butter-beans. 624

30 Landreth, D., & Sons, Philadelphia, Pa. H 15.
a Cereals, grasses, and tobacco. 620
b Field and garden seeds. 624
The full and entire exhibit the production of their own seed-farms in Pennsylvania, New Jersey, Virginia, and Wisconsin.

31 State Michigan Agricultural College. H *and* I 20 *to* 21.
a Farm products. 620
b Seeds of forest trees. 624

32 State of Oregon, Portland, Oregon. E 22.
a Native grasses, cultivated grasses, grain in the sheaf. 620
b Grain in the sack; cultivated grass-seed. 624

33 State of Delaware, Dover, Del. F 17.
a Cereals. 620
b Seeds. 624

34 Ohio State Centennial Board (collective exhibit), Cleveland, Ohio. D *and* E 16.
a Grains, grasses. 620
b Seeds. 624

35 State of West Virginia (collective exhibit). F 19.
a Grasses and agricultural products. 620
b Tobacco. 623
c Wheat, corn, oats, barley, and rye. 624

35*a* Felten, A. L., Philadelphia, Pa.—Vegetables. (*Centre of nave.*) 621

35*b* McNaughton & Co., Philadelphia, Pa.—Bermuda vegetables. J *and* K 17 621

36 Bliss, B. K., & Sons, seedsmen, 34 Barclay street, New York, N. Y.—Potatoes. H 15. 622
Collection of two hundred varieties potatoes. Seed potatoes a specialty. The following well-known varieties were first sent out by this firm: "Early Rose," "Late Rose," "King of the Earlies," "Bresee's Prolific," "Peerless," "Climax," "Extra Early Vermont," "Compton's Surprise," "Brownell's Beauty," "Snowflake," "Eureka," "Alpha," and "Ruby."

37 Murdoch, Aug., New York, N. Y.—American mustard. I 28. 623

38 Bourgeois, Edmund, New Orleans, La.—Perique tobacco, sole agent for Grand Point, St. James, La Perique tobacco and Ledoux's Perique cigarettes. G 25. 623

39 Weikel & Smith Spice Co., Philadelphia, Pa.—Mustard, spices, celery-salt, blacking. K 14. 623

40 Kinney, Francis S., New York, N. Y. —Cigarettes and tobacco. G 25. 623

41 Frishmuth Bros. & Co., Philadelphia, Pa.—Leaf tobacco; fine-cut and smoking tobacco. I 24. 623

42 Swank, M. J., Philadelphia, Pa.—Cigars. G 25. 623

43 Fell, C. J., & Bro., Philadelphia, Pa. —Spices, mustards, crude and manufactured. J 21. 623

44 Stewart, Ralph, & Co., Philadelphia, Pa.—Scotch snuff. G 26. 623

45 Holbrook, Edward, Louisville, Ky. —Manufactured tobacco. H 25. 623

45*a* Sorver, Cook, & Co., Philadelphia, Pa.—Tobacco. F 25. 623

45*b* Pearson, J. R., & Co., Danville, Va.—Tobacco. N 25. 623

46 Israel, J. N., 1338 South St., Philadelphia, Pa.—Cigars. Cigar manufacturer and wholesale dealer in leaf, chewing, and smoking tobacco. G 26. 623

47 Boyd, G., & Co., Philadelphia, Pa.—Coffee, green and roasted. C 22. 623

48 Wardle, George F., Philadelphia, Pa.—Plug chewing tobacco. G 24. 623

49 Blackwell, W. J., & Co., Durham, N. C.—Plug, leaf, and smoking tobacco. H 23. 623

50 Batchelor Brothers, Philadelphia, Pa.—Cigars, tobacco-plants. G 23. 623

50*a* Harrauff & Engle, Elizabethtown, Pa.—Tobacco. G 24. 623

50*b* Goetze, F. A., & Bro., New York, N. Y.—Snuff. F 25. 623

50*c* Rieders, M. H., New York, N. Y.—Cigarettes. G 24. 623

51 Trowbridge, W. H., Danville, Va.—Chewing and smoking tobacco. G 24. 623

52 Shelton Tobacco Curing Co., Asheville, N. C.—Tobacco-hanger. G 24. 623

For locations of objects indicated by letter and figure, see Key to Notation, p. 9; ground plan, p. 10.

Agricultural Products.

53 Wilkens, H., & Co., Baltimore, Md.—Smoking tobacco and snuff. Manufacturers of the well-known brands:—"Commodore," "Sweet Eighteen, Golden Eagle, "Dairy Queen," "Seal of Virginia," Always Ahead, Queen of North Carolina and Bullhead; "Excelsior," bright and extra Cavendish; Oriental Turkish and "German Imperial;" "Strassburger Snuff," and coarse French Rappee. H 24. 623

54 Cills, Wm., Philadelphia, Pa.—Tobacco packing-box. I 26. 623

55 V. Martinez Ybor & Co., Key West, Fla.—Cigars. I 24. 623

56 Western North Carolina Land Co., Philadelphia, Pa.—Cereals, fruits, cotton, and tobacco. E 19. 623

57 Marburg Bros., Baltimore, Md.—Smoking and leaf tobacco. G 26. 623

58 Volinia Farmers' Club, Volinia, Mich.—General farm products, cereals, etc. K 15. 623

59 Seidenberg & Co., 84 and 86 Reade st., New York, N. Y. Factory, Key West, Fla.—Key West and Havana cigars. I 23. 623

60 Shuck, Samuel, Bedford, Pa.—Anti-nervous cigars. I 26. 623

60*a* Stewart, Isaac T., Philadelphia, Pa.—Tobacco. F 25. 623

60*b* Richey, Henry A., New York, N. Y.—Plug tobacco, etc. H 24. 623

60*c* Hart, R. T., McComb City, Miss.—Manufactured tobacco. J 25. 623

60*d* Cusick, Linn, & Co., Philadelphia, Pa.—Tea boxes. I 26. 623

60*e* Pickering, Thomas R., Portland, Conn.—Connecticut-seed leaf tobacco. H 25. 623

61 Watkins, W. M. & C., Milton, N. C.—Plug and fine leaf tobacco. I 25. 623

61*a* Consolidated Tobacco Co., San Francisco, Cal.—Tobacco. I 24. 623

61*b* Grant, L. J., & Co., Richmond, Va.—Manufactured tobacco. F 25. 623

61*c* Jacoby, S., & Co., New York, N. Y.—Cigars. G *and* H 24. 623

61*d* Landis, Israel L., Lancaster, Pa.—Tobacco. B 22. 623

61*e* Cochran & Gillespie, Philadelphia, Pa.—Leaf tobacco. H 25. 623

62 Bailey, Samuel M., Richmond, Va.—Plug tobacco. I 25. 623

62*a* Hancock, Salmon, & Co., Richmond, Va.—Manufactured tobacco, and labels. J 26. 623

62*b* Lovett, Joseph L., Emilie, Pa.—Tobacco. H 24. 623

62*c* Lottier, Lawrence, Richmond, Va.—Manufactured tobacco. H *and* I 25. 623

63 Mayo, P. H., & Brother, Richmond, Va.—Plug tobacco. H 25. 623

64 Holbrook, Harry C., Louisville, Ky.—Plug tobacco. G 25. 623

65 Turpin & Brother, Richmond, Va.—Plug tobacco. H 25. 623

66 Suehnel, Emil J., Philadelphia, Pa.—Cigars. G 24. 623

67 Cohen, John B., Philadelphia, Pa.—Cigars. G 24. 623

68 Gulden, Charles, New York, N. Y.—German and French mustards. J 19. 623

69 Lorillard, P., & Co., New York, N. Y.—Plug and fine-cut chewing tobacco, smoking tobacco and snuffs. F 24. 623

70 Lovell & Buffington, Covington, Ky.—Fine-cut chewing tobacco. G 25. 623

71 Kimball, Wm. S., & Co., Rochester, N. Y.—Chewing and smoking tobacco, and cigarettes. E 25. 623

72 Felgner, F. W., & Son, Baltimore, Md.—Smoking tobacco. Manufacturers of all kinds of smoking tobacco. H 26. 623

72*a* Williams, Thomas C., & Co., Richmond, Va.—Plug tobacco. F 25. 623

72*b* Carroll, John W., Lynchburg, Va.—Chewing and smoking tobacco. H 25. 623

73 Gail & Ax, Baltimore, Md.—Smoking and fine-cut chewing tobacco; snuffs. I 26. 623

74 Kerbs & Spiess, New York, N. Y.—Cigars. G 26. 623

75 Armistead, Louis L., Lynchburg, Va.—Granulated smoking tobacco. I 24. 623

76 Mellen, L. F., West Springfield, Mass.—Connecticut-seed leaf tobacco. I 26. 623

77 Brito, Joseph Z., & Co., New York, N. Y.—Cigarettes. H 25. 623

78 Alces, George, New York, N. Y.—Cigars. H 24. 623

78*a* Haya, Sanchez, & Co., New York, N. Y.—Cigars. I 24. 623

79 Sullivan & Burk, Detroit, Mich.—Cigars of home manufacture. H 26. 623

80 Gumpert Bros., Philadelphia, Pa.—Cigars. G 28. 623

81 Colburn, A., & Co., Philadelphia, Pa.—Mustard, spices, and washing-blue. G 28. 623

82 Bonnett, Schenck, & Earle, New York, N. Y.—Spices and mustard. G 28. 623

83 Allen, J. F., & Co., Richmond, Va.—Granulated plug and cut smoking tobacco, plug tobacco, cigarettes. H *and* I 25. 623

84 Dean, William G., New York, N. Y.—Mustard. I 28. 623

85 Ledoux, C. Z., St. James Parish, La.—Cigarettes. G 25. 623

86 Bamberger, H., & Co., Philadelphia, Pa.—Tea caddies and teas. H 28. 623

86*a* Dunn, T. J., & Co., Philadelphia, Pa.—Seed and Havana seed cigars. G 25. 623

87 Kühn, von, & Silberman, Philada., Pa.—Tobacco pipes. H 25. 623

88 Tobacco-Growers of Penn's Manor, Morrisville, Pa.—Unsweated tobacco This tobacco (known as Duck Island) is grown in Bucks Co., Pa., and adjoining islands. We believe it equal in texture, quality, and flavor to any grown in the United States, except that produced from Havana seed. See circular, to be had at case. I 24. 623

89 Buist, Robert, jr., Philadelphia, Pa.—Seeds. G 15. 624

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

90 Fulton, Joseph W., Libertyville, Iowa.—Corn, grains, grass, and field seeds, vegetable seeds, etc. C 15. 624

91 Meehan, Thomas, Philadelphia, Pa.—Seeds of native hardy trees and shrubs. G 16. 624

91*a* Commercial Exchange Association, Philadelphia, Pa.—Flour, grain, seeds, etc. H 15. 624

91*b* State of New Jersey.—Wheat, rye, oats, corn, buckwheat, clover, and grass seeds. E 17–18. 624

91*c* Van Vranken, J. B., Marcellus, N. Y.—Teasels set in frame. H 15. 624

91*d* Claussen, Charles A., New York, N. Y.—Clover seed. G 15. 624

91*e* Johnson, Robbins, & Co., Wethersfield, Conn. Garden seed. G 15. 624

92 Thurlow, H., Skaneateles, N. Y.—Teasels. H 15. 624

93 Rogers, C. B., Philadelphia, Pa.—Field and garden seeds. I 16. 624

94 Red Wing Mills, Red Wing, Minn.—Fife-wheat. I 26. 624

95 McLaughlin, J. M., & Son, Skaneateles, N. Y.—Teasels. H 15. 624

96 Thorburn, J. M., & Co., New York, N. Y.—Garden, flower, field, and tree seeds. I 16. 624

97 Henderson, Peter, & Co., New York, N. Y.—Field and garden seeds. I 16. 624

98 Illinois State Board of Agriculture (collective exhibit), Springfield, Ill.—Samples illustrating the agricultural, horticultural, geological, and other resources of the State. G 22. 600–624

98*a* Myers, Ephraim, Creagerstown, Md.—Tree, shrub, and flower seeds. C 15. 624

Land Animals.

99 Michigan State Agricultural College, Lansing, Mich. E 25.
a Birds, useful and injurious. 635
b Insects, useful and injurious. 638

99*a* Barrett, J. O., Glen Beulah, Wis.—"Old Abe," the live war-eagle,—carried for three years during the war of the rebellion by the 8th Regt. Wis. Vols. J 17. 635

99*b* Axe, Edwin C., Philadelphia, Pa.—Stuffed birds. A 23. 635

99*c* McIlvaine, John H., Philadelphia, Pa.—Birds. E 26. 635

100 Beath, J. R., Philadelphia, Pa.—Stuffed birds. K 23. 635

100*a* Land Dept. Central Pacific R. R. Co.—Birds. B 15–19. 635

101 Aldrich, P. W., Readville, Mass.—Stuffed birds. K 23. 635

102 Howlett, C. K., Hudson, Ohio.—Stuffed birds of America. K 23. 635

103 Brown, Clark D. W., Taxidermist and naturalist, Aurora, Ills.—Stuffed birds artistically arranged, representing the gathering of nations to the Centennial. Orders for groups, artistic or scientific, promptly filled and safely packed. K 24. 635

104 Crenshaw, George, Philadelphia, Pa.—Stuffed Hamburg fowls, with their young. K 24. 635

104*a* Hartley, Richard, Philadelphia, Pa. E 28.
a Birds. 635
b Insects. 638

105 Academy of Natural Sciences, Allentown, Pa. K 23.
a Birds with their nests and eggs. 635
b Quadrupeds. 637

106 Rosenbaum, F., Watertown, Wis.
a Wisconsin birds. K 23. 635
b Animals of Wisconsin. 637

107 Forster, Christian, Hamilton, Ohio. K 24.
a Mounted birds of North America. 635
b Mounted animals of North America 637

108 Wallace, John, New York, N. Y.—Stuffed animals. K 24. 635

108*a* Zimmerman, Henry O. R., Georgetown, Del.—Insects. K 24. 638

108*b* Brown, Miss Nellie, Philadelphia, Pa.—Process of hatching and rearing silkworms without mulberries. A 24. 638

[*Special displays of Live-Stock are arranged to be held during September, October, and November.*]

Water Animals, Fish Culture, and Apparatus.

109 Ward, Henry A., Rochester, N. Y.—Casts of fossils, zoological specimens, mammals, birds, reptiles, fishes, batrachians, etc., stuffed and mounted. K 26–27. 640

109*a* Crenshaw, George, Philadelphia, Pa.—Stuffed fish. A 23. 641

109*b* Cuvier Club, Cincinnati, Ohio.—Fish. A 18. 641

109*c* Gates, H. C., Wilkesbarre, Pa.—Eels and other live fish. A 22. 641

110 Seher, H. L., Philadelphia, Pa.—American and imported leeches. A 22. 642

111 Hapgood & Co., San Francisco, Cal.—Preserved salmon. A 19. 642

112 Goodale, S. L., Saco, Maine.—Food extract from the juices of fish. J 23. 642

113 Rogers, John S., Gloucester, Mass.—Gelatine, isinglass, and glue made from salt-fish skins. A 22. 646

114 Norwood, C., & Son, Ipswich, Mass.—Isinglass. A 22. 646

114*a* Wahl Brothers, Chicago, Ill.—Glue. K 22. 646

115 Müller, Gustave, Chicago, Ill.—Russian isinglass. A 22. 646

116 Norwood, C., & Son, Ipswich, Mass.—Isinglass. A 22. 646

117 Fox, George, Jr., Philadelphia, Pa.—Split and glued bamboo trout fly rods. A 27. 647

118 Shipley, A. B., & Son, Philadelphia, Pa.—Fishing tackle. A 15. 647

119 Terrell, J. A., Bloomfield, Ky.—Angler's transparent float. A 26. 647

120 Mansfield, G. H., & Co., Canton, Mass.—Braided fishing lines. Manufacturers of braided fishing lines. Waterproof silk lines in all sizes and lengths suitable for fly fishing; oiled, raw, and fancy silk lines; linen and cotton lines, various sizes. We give personal attention to the business, and guarantee full lengths and best quality. Trade-mark on every line. A 26. 647

Fish Culture and Apparatus, Animal and Vegetable Products.

120*a* Cook, L. C., Philadelphia, Pa.—Trout rod and case. A 27. 647

121 Conroy, Bissett, & Malleson, New York, N. Y.—Fishing rods, reels, lines, flies, and fishing tackle. A 28. 647

121*a* McBride, Miss Sarah J., Mumford, Pa.—Artificial flies for fishing. A 19. 647

122 City of Gloucester, Essex co., Mass.—Exhibit of her progress, development, and industries as the largest fishing port in the United States. A *and* B 20 *and* 21. 647

123 Slack, Mrs. J. H., Bloomsbury, N. J.—Flight of coste trays, combination hatching box. A 24. 648

124 Murphy & Broom, Philadelphia, Pa.—Aquarium tanks. C 26. 648

125 Clarke, N. W., Northville, Mich.—Fish-hatching apparatus. A 24. 648

126 Taxis, E. W., Philadelphia, Pa.—Aquarium tank. A 21. 648

126*a* Pacific Guano Co., Boston, Mass.—Aquarium with living fish. A *and* B 28. 648

126*b* Craig, Daniel, Philadelphia, Pa.—Parlor aquarium. A 21. 648

Animal and Vegetable Products.

127 Crawford & Walton, Philadelphia, Pa.—Bleached sponge. F 26. 650

128 American Condensed Milk Co., New York, N. Y.—Condensed milk. J 21. 651

128*a* Sensenberger, Wm., Philadelphia, Pa.—Rennet. K 17. 651

128*b* American Condensed Milk Co., New York, N. Y.—Preserved milk. J 21. 651

129 Napheys, George C., & Son, Philadelphia, Pa.—Refined leaf lard. K 20. 652

130 Chalmers, James, & Sons, Williamsville, N. Y.—Gelatine. K 22. 652

131 Wilcox, W. J., & Co., New York.—Refined leaf-lard, lard stearine, and lard oil. K 21. 652

132 Stein, Hirsh, & Co., Chicago, Ill.—Egg albumen, blood albumen, casein and dried blood. J 22. 652

133 Brown, William H., Peabody, Mass.—Prepared sizing, glue. K 20. 652

134 Franklin Glue Works, Pittsburg, Pa.—Glue, neats-foot oil. K 20. 652

135 Upton, George, Boston, Mass.—Glue in sheets, broken, ground, and powdered. K 20. 652

136 Peter Cooper's Glue Factory, New York, N. Y.—Glue, gelatine, neats-foot oil. K 22. 652

137 Lister Brothers, Newark, N. J.—Glue, tallow, etc. C 25. 652

138 Cassard Bros. & Co., Baltimore, Md.—Refined lard. K 21. 652

138*a* Wahl Brothers, Chicago, Ill.—Gelatine, neats-foot oil, horns, hoofs, and bones. K 22. 652

138*b* Butchers' Slaughtering & Melting Association, Brighton, Mass.—Steamed bones, horns, hoofs, etc. K 22. 652

138*c* Holcomb, E., Grand Rapids, Mich.—Deer-skin lace leather. K 24. 652

138*d* Ward, N., & Co., Boston, Mass.—Cattle bones, tallow, grease, hoofs, neats-foot oil, etc. A 26. 652

138*e* Upton, Elijah W., Peabody, Mass.—Glue. K 19. 652

139 Meriam Packing Co., Boston, Mass. J 20.
a Hides, tallow, etc. 652
b Mess beef, concentrated roast beef, and canned turtle. 656

140 State of Oregon (collective exhibit), Portland, Oregon. E 22.
a Glue, condensed cider. 652
b Dried fruit. 656
c Farina, flour, and oatmeal. 657

140*a* Milligan & Higgins Glue Co., N. Y.—Glue. K 19. 652

140*b* Stearne, P., Adams, N. Y.—Deer-heads. E 28. 652

141 Mellen & Co., New York, N. Y.—Renovated live-geese feathers. H 17. 653

142 Harbison, W. C., New Castle, Pa.—White Mountain honey. J 23. 654

142*a* Hurd, Lewis, Kewanee, Ill.—Fruit honey. J 24. 654

143 Fritsch, Joseph, Carlstadt, N. J.—Sunbleached wax, and candles. J 23. 654

144 Lewis, W. K., & Brothers, Boston, Mass.—Preserves, pickles, catsups, condensed milk, canned fruits, meats, and vegetables. J 22. 656

145 Portland Packing Co., Portland, Maine.—Canned vegetables, fruits, meats, poultry, and shell-fish. J 23. 656

146 Warner, Rhodes, & Co., Philadelphia, Pa.—Canned fruits and vegetables, fresh and preserved. J 24. 656

147 Atmore & Son, Philadelphia, Pa.—Mincemeat and English plum-pudding. J 24. 656

148 Slocum, W. H., & Bro., Philadelphia, Pa.—Mincemeat canned goods. J 23. 656

150 Anderson & Campbell, Camden, N. J.—Canned fruits, vegetables, fruit-butter, and mincemeat. J 24. 656

150*a* Bigelow, Jona, Boston, Mass.—Labeling machine. J 22. 656

150*b* Macfarlane, N. H., & Co., New York, N. Y.—Refined lard. K 19. 656

150*c* Ashbourne, Alex. P., Philadelphia, Pa. K 17.
a Pulverized cocoanut. 656
b Cocoanut vinegar. 661

150*d* Armstrong, Herran M., & Co., Louisville, Ky.—Pork products K 22. 656

151 Boyd, G., & Co., Philadelphia, Pa.—Dried grain and fruit. C 22. 656

153 Reeves, Parvin, & Co., Philadelphia, Pa.—Canned vegetables. J 23. 656

154 Wright, Joshua, & Son, Philadelphia, Pa.—Minced meat. J 24. 656

155 Wilson Packing Co., Chicago, Ill.—Hermetically sealed cooked meats; corned beef, ham, tongue, and fresh beef. J 23. 656

156 Norris, J. W., & Co., New York, N. Y.—Aromatic hams, white-sugar cured and delicately flavored. J 20. 656

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Animal and Vegetable Products.

157 Githens & Rexsamer, Philadelphia, Pa.—Canned fruits and vegetables. J 23. 656

158 Du Vivier & Co., New York, N. Y.—Pickles and delicacies. J 20. 656

159 Haller, Ella G., New York, N. Y.—Choice fruits. J 21. 656

160 Gordon & Dilworth, New York, N. Y.—Preserved domestic and foreign fruits, jellies, canned goods, sauces, syrups, and general table delicacies. J 23. 656

161 Chambers, Jos. M., Dover, Delaware.—Canned goods; dessert fruits a specialty. Strawberries, raspberries, cherries, pineapples, peaches, Bartlett pears, tomatoes, etc.

The location (Dover, Delaware) of this canning house gives the all-important advantages which are essential to ensure the superior quality and flavor of canned goods.

The fruit is allowed to fully mature on the trees before being picked, thereby securing a richness of flavor. As the fruit ripens it is carefully picked, pared by hand, and each piece carefully placed in the cans, filling them as full as possible not to mash or bruise the fruit, after which the cans are filled with heavy syrup made from the best granulated sugar.

No deleterious substances or patent preserving-powders used. All lovers of good desserts send for circular. I 24 *and* J 22. 656

162 Snedeker, David, New York, N. Y.—Preserved fruit, vegetables, meat, etc. I 24. 656

163 McMurray, L., & Co., Baltimore, Md.—Canned vegetables, fruits, and oysters. J 24. 656

163*a* Ritter, Philip J., Philadelphia, Pa.—Butter. J 21. 656

163*b* Annapolis Canning Co., Annapolis, Md.—Canned goods. J 25. 656

164 Richardson & Robbins, Dover, Del.—Canned and preserved fruits, potted meats, etc. J 24. 656

165 Fruit-Growers' Trade Co. of New Jersey, New York, N. Y.—Cranberries, natural and preserved, canned tomatoes, etc. D 24. 656

166 Clarkson, F. M., & Son, Bridgeville, Del.—Evaporated and conserved fruits and vegetables. J 42. 656

167 Borden, John G., Brewsters, N. Y.—Condensed milk, coffee, and cocoa, extract of beef, etc. J 22. 656

167*a* Hazard, E., & Co., New York, N. Y.—Canned fruits. J 22. 656

167*b* Turner, J., M'f'g Co., New York, N. Y.—Sauce. K 9. 656

167*c* Greenfield, Nelson, New York, N. Y.—Flavors and coloring for confectionery. K 27. 656

167*d* Archdeacon, W., Chicago, Ill.—Pickles, preserves, jellies, sauces, and canned goods. J 22. 656

167*e* Provost, Stephen H., New York, N. Y.—Tomato, walnut, and mushroom sauce. J 24. 656

167*f* Selser & Brother, Philadelphia, Pa.—Canned fruits and vegetables; catsups. J 25. 656

167*g* Farmers' Fruit Preserving Co. of Kent co., Del., Lebanon, Del.—Canned fruits and vegetables. J 24. 656

167*h* Smith, Wright, St. Louis, Mo.—Table sauce. J 22. 656

168 American Desiccating Co., Philadelphia, Pa.—Crystallized cocoanut. J 24. 656

168*a* Knight, C. P., & Bro., Philadelphia, Pa.—Fruit jellies. J 25. 656

169 Flood, Wm. M., Philadelphia, Pa.—Mutton in alcohol. A 27. 656

170 Gulden, Charles, New York, N. Y.—Tomato catsup, capers, and olives. J 19. 656

171 New York Desiccating Co., New York, N. Y.—Prepared cocoanut for pies, cakes, etc. I 24. 656

172 Libby, McNeal, & Libby, Philadelphia, Pa.—Canned cooked meats. J 24. 656

172*a* Schepp, Leopold, New York, N. Y.—Desiccated cocoanut. K 28. 656

172*b* Cook, J. W. & V., Portland, Oregon.—Canned salmon. J 25. 656

173 Reckhow Preserving Co., Paterson, N. J. Office 138 Chambers street, New York, N. Y. Trade mark "Monticello."—Pickles, canned goods, salad cream, table sauces, olives, capers manufactured from the best material. Quality guaranteed as represented. J 22. 665

174 New York Hop Extract Co., New York, N. Y.—Hop extract. K 17. 656

175 Little Creek Canning Co., Little Creek, Del.—Canned fruits and vegetables. J 23. 656

176 Jones, John Winslow, Portland, Maine.—Canned green corn, lobster, mackerel, salmon, and beef. B 24. 656

177 Cassard, Geo., Baltimore, Md.—Pepper hams. K 21. 656

178 Zane, Norny, & Co., Philadelphia, Pa.—Fruit-preserving powder. J 23. 656

179 Annear, John, & Co., Philadelphia, Pa.—Pennsylvania sauce. J 21. 656

180 La Croix, James, East Medway, Mass.—Canned vegetables, apples, etc. J 23. 656

181 Brooks, C. D., Boston, Mass.—Pickles, preserves, canned goods, etc. J 21. 656

182 MacGowan, John K., Philadelphia, Pa.—Table sauce. J 21. 656

182*a* King, William, Brooklyn, N. Y.—Table sauce. J 20. 656

182*b* Bechstein & Co., New York, N. Y.—Sugar-cured hams, breakfast bacon, and beef tongues. J 20. 656

182*c* Black & Krebs, Baltimore, Md.—Sugar-cured hams, refined lard. K 21. 656

183 Underwood, W., & Co., Boston, Mass.—Canned meats, fish, fruits, vegetables, etc.; pickles, catsups, sauces, etc. J 24. 656

184 Cowdrey, E. T., & Co., Boston, Mass.—Canned vegetables, meats, and fruits, pickles, preserves, and jellies. J 21. 656

185 Burnham & Morrill, Portland, Maine.—Canned meats, soups, fish, and vegetables. J 23. 656

For locations of objects, indicated by letter and figure, see Key to Notation, p. 6; ground plan, p. 10.

Animal and Vegetable Products.

186 Harris, Milo, Jamestown, N. Y.—Dried fruits. D 23. 656

187 Dingee, Squire, Chicago, Ill.—Pickles, chow-chow, and sauces. J 21. 656

188 Holgate, Geo., & Co., Oshkosh, Wis.—Preserved fruits and vegetables; preserved meats in joint. J 23. 656

189 Williams, John, South Haven, Mich.—Evaporated fruits and vegetables. D 24. 656

190 George, P. T., & Co., Baltimore, Md.—Hams, lard, and lard oil. Pork packers and curers of the Maryland hams, and manufacturers of refined lard and lard-oil. Lard prepared for the Brazil and West India markets a specialty. K 21. 656

190*a* Evans Bros., Cincinnati, Ohio.—Hams, shoulders, etc. J 15–16. 656

190*b* Erie Preserving Company, Brant, Erie co., N. Y., and New York city.—Canned fruits and vegetables. K 18 & 19.

These "fruits" and "vegetables" are prepared practically in the field where grown. Only fully ripe and carefully-assorted fruits are packed. The tins are uniformly filled full of fruit; the interstices are then filled with spring-water and refined white sugar, which, mingling in the juices of the fruit, forms a heavy, rich syrup.

"Vegetables." The preserving-houses are located directly in the midst of a rich, fertile agricultural country, upon the shores of Lake Erie, where sweet corn, sweet peas, tomatoes, etc., are grown in great abundance and perfection, the tempering lake breezes exercising a highly beneficial climatic influence. The peculiar delicacy of flavor these vegetables possess is owing to this favored location and their being perfectly fresh, not allowed to wilt or pass through any heating or sweating process; are invariably packed the same day they are picked, usually within two hours after. "Erie sweet corn" is packed, young and tender, solidly in the cans, in its own milk. Nothing goes into the can save the sweet tender corn. It will always be found the same. 656

190*c* Hemp, Day, & Co., New York, N. Y.—Canned fruits, meats, fish, etc. J 25. 656

190*d* Perry, F. H., Providence, R. I.—Canned fruits. J 21. 656

191 Jacob, Chas., jr., & Co., Cincinnati, Ohio.—Hams, shoulders, breakfast bacon, mess pork, mess and dried beef, beef tongues, etc. J 15–16. 656

192 Keck, J. L., & Bros., Cincinnati, Ohio.—Pickled meats, lard, etc. J 15–16. 656

193 Kahn & Forbes, Cincinnati, Ohio.—Hams, breakfast bacon, and family mess pork. J 15–16. 656

194 Evans, Lippincott, & Cunningham, Cincinnati, Ohio.—Bacon, hams, mess pork, lard, and breakfast bacon. J 15–16. 656

195 Davis, S., jr., & Co., Cincinnati, Ohio.—Smoked hams, breakfast bacon, bacon sides, shoulders, and mess pork. J 15–16. 656

196 Morrison, James, & Co., Cincinnati, Ohio.—Hams, bacon, mess pork, lard, English meats, etc. J 15–16. 656

197 Fell, C. J., & Bro., Philadelphia, Pa. J 21.
a Gelatine. 656
b Self-raising flour. 657

198 Cereals Manufacturing Co., New York, N. Y.—Crushed wheat, flour, meal, etc. J 28. 657

199 Lagomarsino & Cuneo, Philadelphia, Pa.—Macaroni, vermicelli, fancy paste, farina, etc. J 26. 657

200 Outcalt, John, Spotswood, N. J.—Hominy, samp, corn flour from corn grown on Monmouth and Princeton battle-fields, Graham flour, wheaten grits, etc. J 26. 657

200*a* Pillsbury, Charles A., & Co., Minneapolis, Minn.—Flour. J 26. 657

200*b* Gambrill, C. A., & Co., Baltimore, Md.—Flour. J 25. 657

201 Tyrrell, J. F., & Co., New York, N. Y.—Oatmeal. J 27. 657

202 Schumacher, Ferd., Akron, Ohio.—Oatmeal, barley, farina, cracked wheat, flour, hominy, meal, feed, and grain. J 26. 657

203 Hecker, George V., & Co. (Croton Mills, Cherry st.), New York, N. Y.—Self-raising flour, buckwheat, griddle-cake flour, farina, and cracked wheat.

Heckers' Superlative family flours, which received the First Premium at the World's Fair, London; and the World's Fair, New York. Very popular with those desiring "fine bread and biscuit as can be produced."

Heckers' Self-raising Flour, for Bread, Biscuit, Puddings, Cakes, etc., by adding only cold water or milk. This valuable improvement, introduced in 1850, by Hecker & Brother, was awarded the only Gold Medal given for Self-Raising Flour.

Heckers' Griddle Cake Self-Raising Flour. For Griddle Cakes, Muffins, Fritters, Waffles, Doughnuts, and for any use where a batter is required.

Acid used in making Heckers' Self-Raising Flour.

Heckers' Farina, a delicate and appropriate food for all seasons.

Heckers' Wheaten Grits, invaluable to dyspeptic and sedentary persons. J 25. 657

204 Red Wing Mills, Red Wing, Minn.—Flour. J 26. 657

205 Baltimore Pearl Hominy Co., Baltimore, Md.—Breakfast hominy, meal, flour, samp, etc. J 28. 657

205*a* Deener, Cissel, & Welsh, Georgetown, D. C.—Flour. I 25. 657

205*b* Pollock, James, Vincennes, Ind.—Flour. J 24. 657

205*c* Prentzel, Samuel F., Philadelphia, Pa.—Oatmeal and oatina. J 25.

206 Jewell Brothers, Brooklyn, N. Y.—Plain and self-raising flour, babies' cereal food. J 28. 657

206*a* Heaton, Edward, New Haven, Conn.—Granum. I *and* J 15. 657

206*b* Taylor, A. A., Toledo, Ohio.—Flour. J 24. 657

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 13–14.

Animal and Vegetable Products.

206*c* Baldwin, Homer, Youngstown, Ohio.—Flour. J 25. 657

206*d* Bedell & Conklin, Brooklyn, N. Y. —Meal, flour, hominy, etc. J 25. 657

206*e* Christian, J. A., & Co. Minneapolis, Minn.—Flour. J 25. 657

206*f* Porter & Mowbray, Winona, Minn. —Flour. J 24. 657

206*g* Eisenmayer & Co., St. Louis, Mo. —Flour. J 25.

206*h* Thilenius, G. C., Cape Girardeau, Mo.—Flour. K 23. 657

206*i* Oswego Milling Co., Oswego, N. Y.—Flour. J 25. 657

207 Miller, Charles L., Colon, Mich.— Pumpkin flour. J 28. 657

208 Stuart & Douglas, Cedar Rapids, Iowa.—Oatmeal. J 22. 657

209 Duryea's Glen Cove Starch Co., Glen Cove, N. Y.—Laundry starch, corn starch, and maizena. J 15–16. 658

210 Kingsford, T., & Son, Oswego, N. Y.—Laundry starch, corn starch, etc. J 13–14. 658

211 Wood, Julius J., & Co., Columbus, Ohio.—Laundry starch, corn starch for food. J 21. 658

212 Erkenbrecher, Andrew, Cincinnati, Ohio.—Starch, plain, perfumed, and flavored, St. Bernhard pure, refined pearl, wheaten, pulverized, "cornena" (copyrighted), corn flour for culinary purposes, "gloss sateena" (copyrighted) for laundry use. Manufacturer of perfumed and flavored starch. J 17, 18, 19. 658

213 Barnett, William, Philadelphia, Pa.—Wheat starch. J 21. 658

213*a* Fox, George, Cincinnati, Ohio.— Starch. J 22. 658

213*b* Stone & Co., Chicago, Ill.—Zoline, starch gloss. K 17. 658

214 Miller, H. J., & Co., West Liberty, Ohio.—Maple sugar and molasses. J 25. 659

214*a* Hutter, Robert, Philadelphia, Pa. —Grape sugar, etc. D 24. 659

215 Post, C. C., Burlington, Vt.—Maple sugar and syrup. C 24. 659

216 Murdock, Albert L., Boston, Mass. E 25.
a Beet sugar. 659
b Peat. 660

216*a* McDonald, M. C., Philadelphia, Pa.—Crystal drips syrup. J 25. 659

216*b* New Hampshire State Centennial Board.—Sugar. E 20–21. 659

217 Nennich, Henry, Philadelphia, Pa. —Vinegar. G 28. 660

217*a* Agnew, Eisenbeis, & Co., Allegheny, Pa.—Table, pickling, and aromatic vinegars. H 28. 660

217*b* Boden, H. W., & Co., Milwaukee, Wis.—Vinegar. H 28. 660

217*c* Hexamer, F. M., New Castle, N. Y. Russet cider. K 13. 660

218 Chalvin, H. A., New York, N. Y.— Cordials, syrups, and extracts. K 18. 660

219 Hincke, Julius, Egg Harbor City, N. J.—Domestic wines. American grape wines, from Hincke's vineyards, all vintages since 1868, highly recommended for table use, as well as for invalids. K 12. 660

219*a* Boden, A. F. W., & Co. (A. F. W. Boden, Henry Riedeburg), 298 Milwaukee st., Milwaukee, Wis.—Vinegar. Manufacturers of cider and white wine vinegar. H 28. 660

220 Urbana Wine Co., Hammondsport, N. Y.—Champagne, still wines, and brandy from native grapes. K 12. 660

221 Johnson, T. H., Bricksburg, N. J.— Unfermented wines. J 23. 660

222 Mills, William H., Sandusky, Ohio. —Still and sparkling domestic wines. K 14. 660

223 American Champagne Co., New York, N. Y.—Still and sparkling wines. K 13. 660

224 Sattler & Co., Baltimore, Md.— Whisky. K 18. 660

224*a* Speer, Alfred, Passaic, N. J.—Native wines. K 29. 660

224*b* Cooley, John E., & Co., Sing Sing, N. Y.—Native wines. K 16. 660

224*c* Shafer, J. Calvin, New York, N. Y. —Fruit syrups, juices, brandy, and cordial. K 16. 660

224*d* Brecht, C. F., Philadelphia, Pa.— Wines and brandies. K 12. 660

224*e* Smith, Isaac, Centre Island, N. Y. —Apple wine. K 7. 660

224*f* White Elk Vineyards, Keokuk, Iowa.—Wines. K 16. 660

225 United Wine-Growers, Egg Harbor, N. J.—Native grape wines. K 8. 660

226 American Wine Co., St. Louis, Mo. —Sparkling and still wines. K 14. 660

227 Dreyfus, B., & Co., San Francisco, Cal.—California wines and brandies. K 14. 660

228 Poeschel, M., & Scherer, Hermann, Mo.—Native wines. K 13. 660

229 Kohler & Frohling, San Francisco, Cal.—California wines and brandies. K 10–11. 660

230 Keller, J. S., Orwigsburg, Pa.— Wine and whisky. K 13. 660

231 Wehr, C. Werk, & Son, Middle Bass Island, Ohio.—Native wines. K 8. 660

232 Buena Vista Vinicultural Society, San Francisco, Cal.—Wines and brandy. K 11. 660

233 Keller, M., Los Angelos, Cal.— Wines and brandies. K 7. 660

234 Pleasant Valley Wine Co., Hammondsport, N. Y.—Champagne, still wines, and brandies. K 14. 660

235 Middleton, G. W., & Co., Philadelphia, Pa.—Alcohol, rectified, French, and Cologne spirits; double rectifier. K 16. 660

236 Landsberger, J., & Co., San Francisco, Cal.—Champagnes and brandies. J *and* K 8. 660

237 Beller, Jacob, Detroit, Mich.—Native grape wines, currant and elderberry wines. K 7. 660

238 Hathaway, Vincent, & Co., Boston, Mass.—Boston ginger ale. K 17. 660

239 Hannis Distillery Co., Philadelphia, Pa.—Whisky. K 15. 660

240 Hughes, H. R. & M., Pittston, Pa. —Stock ale. K 16 *and Brewers' Building.* 660

For locations of objects, indicated by letter and figure, see Key to Notation, p. 6; ground-plan, p. 10.



B. K. BLISS & SONS,

IMPORTERS AND DEALERS IN

Garden, Field and Flower Seeds,

Dutch Bulbous Roots, Summer Flowering Bulbs, Horticultural Implements.

REQUISITES FOR THE FARM AND GARDEN.

SEED POTATOES A SPECIALTY.

The Following Catalogues are published during the year, and will be mailed to all applicants on receipt of prices affixed. Regular Customers supplied gratis.

No. 1.—BLISS'S SEED CATALOGUE AND GUIDE TO THE FLOWER AND KITCHEN GARDEN. Contains upwards of 200 pages, with many **Beautiful Illustrations**, including splendid Colored Lithographs of favorite Flowers and Vegetables, and a descriptive list of upwards of **Two Thousand Varieties of Flower and Vegetable Seeds.** Also a list of upwards of **One Hundred Varieties of French Hybrid Gladiolus**, and other **Summer Flowering Bulbs, Grapes, Strawberries, Raspberries**, and other **Small Fruits, etc., etc.** Price, including postage, 35 cents; an edition elegantly bound in muslin, $1.00.

No. 2.—BLISS'S GARDENER'S ALMANAC AND ABRIDGED CATALOGUE of Garden, Field and Flower Seeds. 116 pages, beautifully illustrated, mailed to all applicants enclosing 10 cents.

No. 3.—BLISS'S ILLUSTRATED POTATO CATALOGUE contains a descriptive list of all the new varieties recently introduced, with many other desirable sorts, also much useful information upon their cultivation. 32 pages, 10 cents.

No. 4.—BULB CATALOGUE. (Illustrated,) published September 1st, containing a Choice Collection of **Double and Single Hyacinths**, arranged in their several colors; **Tulips**, in many varieties, both double and single; **Polyanthus Narcissus, Crown Imperials, Jonquils, Snow Drops, Lilies**, etc. Price, 10 cents.

Address, **B. K. BLISS & SONS,**

P. O. Box No. 5712. **34 BARCLAY STREET, NEW YORK.**



BLATCHLEY'S PATENT TRADE MARK **B**

WOOD PUMPS

G TRADE MARK CO. PUMP CO. LAFTON



CHAS. G. BLATCHLEY,

MANUFACTURER,

506 Commerce Street, Philadelphia.

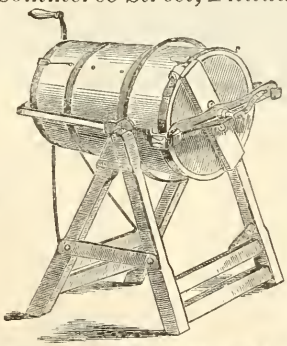
BLATCHLEY'S

HORIZONTAL

Ice Cream Freezer

(Singley's Patent,)

The BEST in the WORLD.



Sizes, 3, 4, 6, 8, 12, 20, 30, 40 qt.

The closed head will save ice enough in one season to pay for the machine.

The Tub requires but one filling to freeze.

CHAS. G. BLATCHLEY,

MANUFACTURER,

506 COMMERCE STREET, PHILADELPHIA.

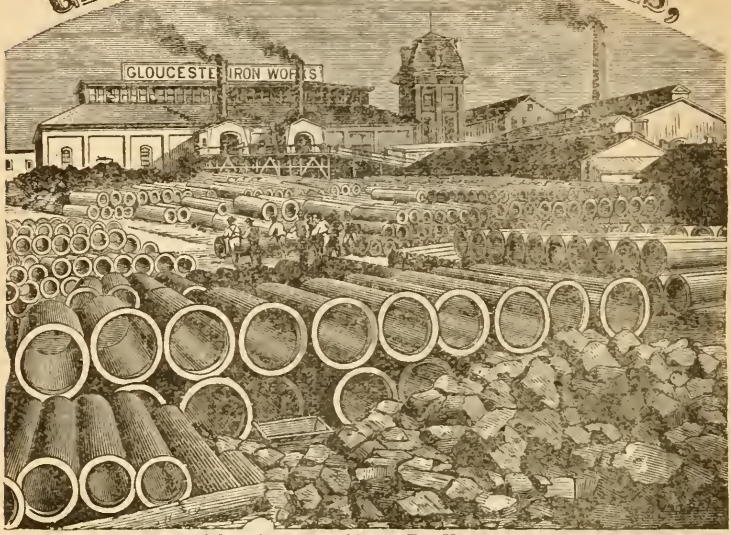
At the Centennial Exhibition, Agricultural Hall, corner aisles 9 and N, Column Letter O, No. 10.

David S. Brown, Pres't.
Benj. Chew, Treas.

Jas. P. Michellon, Sec'y
Wm. Sexton, Sup't.

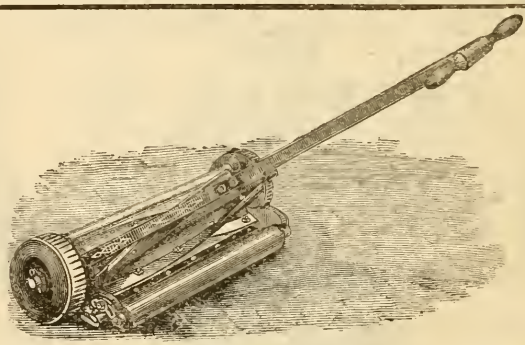
GLOUCESTER IRON WORKS,

GLOUCESTER CITY, NEW JERSEY.



Cast Iron Gas & Water Pipes, Stop Valves, Fire Hydrants, Gas Holders, &c.

Office, Philadelphia, No. 6 North Seventh St.



THE PHILADELPHIA LAWN MOWERS.

WIDTH.	POWER REQUIRED.	WEIGHT.	PRICE.
10 inch,	A Lady,	28 lbs.	$15.00
12 "	"	34 "	18.00
14 "	A Youth,	37 "	20.00
16 "	One Man,	41 "	22.00
18 "	"	46 "	24.00

WIDTH.	POWER REQUIRED.	WEIGHT.	PRICE.
20 inch.	One Man,	50 lbs.	$26.00
15 "	"	51 "	22.00
30 "	Light Horse,	300 "	90.00
30 "	" "	345 "	110.00

These Lawn Mowers being but little over half the weight of the old style machines, they are far easier handled and very much lighter draft. They are on exhibition in Agricultural Hall, Columns L and 13 and 14.

GRAHAM, EMLEN & PASSMORE,

631 Market St., Philadelphia.

BIERNATZKI & CO., Hamburg, Germany.
London, England. } European Agents.

Animal and Vegetable Products.

241 Pierce, S. S., & Co., Boston, Mass. —Champagne cider. J 23. 660

242 Naglee, H. M., San José, Cal.—Brandy. K 10. 660

243 Trommer Extract of Malt Co., Fremont, Ohio.—Extract of barley malt. K 18. 660

244 Landauer Bros., Philadelphia, Pa. —Rye whisky. K 16. 660

245 Levy, James, & Bro., 27 and 33 Sycamore street, Cincinnati, Ohio.—Bourbon and rye whiskies; specialty, Kentucky whiskies, both in bond and tax paid. K 16. 660

245*a* Lawrence, Daniel, & Sons, Boston, Mass.—Rum. K 13. 660

245*b* Le Franc, Charles, San José, Cal. —Wine and brandies. K 14. 660

246 Pointe aux Peaux Wine Co., Monroe, Mich.—Native wines. H *and* J 20. 660

247 Goetze, F. A., Jersey City, N. J.—Native wines. K 13. 660

248 Huck, John A., Chicago, Ill.—Wines. K 12. 660

249 Mahé, Gustave, San Francisco, Cal. —Golden wine. Extract from the report of the Committee of Industrial Exhibition of the Mechanics' Institute, San Francisco, California: "Mr. Mahé's wine is made from what is called the Mission Grape, without any admixture of foreign grapes. It is singularly light and pure, and has obtained the First Premium and only Medal awarded to the California Wine, at the Tenth Industrial Exhibition of the Mechanics' Institute, San Francisco. Mr. Mahé's property consists of about one hundred acres, forty-five of which are planted with vines. Of the seventy thousand feet of vineyard, twelve thousand are in vines nine years old, eight thousand five years old, thirty-five thousand in their fourth year, and the remaining fifteen thousand are three years old. Mr. Mahé estimates that when all these vines are in full bearing (which will be in two or three years' time), they will yield an average of from thirty to thirty-five thousand gallons of wine. In 1874 eighteen thousand feet in bearing yielded eight thousand five hundred gallons. The whole vineyard is planted with the grape known as the California Mission. The cellars, which are two and three floors deep, have a capacity of a hundred thousand gallons in casks and bottles together. The wine is to be kept in the cellar at least three years, that length of time being necessary to give it the greatest part of its valuable qualities, and Mr. Mahé intends to give it to the consumer in glass only, that he may be satisfied it cannot be used in any but its naturally pure state.

"At the vintage, which is always in October, from the 15th to the 30th, the grapes, as soon as they have been gathered and brought to the press, are stripped from the stems. The stems are carefully thrown aside, and the grapes fall from the stripping machine into a mill, which breaks the grape without crushing the seeds. From this mill the broken grapes fall on the press, from which the juice passes directly through India-rubber pipes into the casks, arranged on the lowest floor to receive it. There the juice ferments, and is drawn off three times the first year, twice the second year, and once only the third year; and always in January. The third year the wine is bottled in the month of February, and is not offered for use till six months later, about September.

"The pulp and solid part of the grapes left in the press are subjected to the action of a hydraulic press of sixty thousand pounds' force worked easily by one man. The distillation of the Golden Wine showed the following per centage of alcohol: vintage of 1869, 12 per cent.; vintage of 1870, 11 per cent; vintage of 1871, 11¼ per cent. It contains, therefore, the same proportion of alcohol as the wines of Bordeaux."

In order to enable the visitors to the Exhibition to appreciate the qualities of the wine of California, we have established in Agricultural Hall, near our exhibit, at the north entrance, a buffet, where an excellent lunch, including a half bottle of Golden Wine, will be daily served up, at the price of one dollar. Our fellow-citizens and our foreign friends are respectfully invited to honor us with a call. L. Ponton de Arce, *Manager*. K 14. 660

250 Steuben County Vineyard Association, Bath, N. Y.—Native grape wines and brandy. K 12. 660

251 Criqui, Joseph, Newark, N. J.—Wine. K 9. 660

252 Kelley's Island Wine Co., Kelley's Island, Ohio.—Champagnes and claret wines, etc.; Catawba brandy. K 11. 660

253 Perkins, Stern, & Co., New York, N. Y.—California wines and brandies. K 8. 660

254 Whitman, Stephen F., & Son, Philadelphia, Pa.—Variety of manufactures in confectionery and chocolate. K 25. 661

254*a* Richardson, J. J., & Co., Philadelphia, Pa.—Confectionery. K 28. 661

254*b* Miller, George, & Sons, Philadelphia, Pa.—Confectionery. K 25. 661

255 Baker, Walter, & Co., Boston, Mass. —Chocolate and cocoa preparations. K 25. 661

256 Rumford Chemical Works, Providence, R. I.—Yeast powder, cream tartar, acid phosphate, and bread preparation. K 21. 661

257 Wilson, Walter G., & Co., Philadelphia, Pa.—Crackers and biscuit. K 23 *and* 24. 661

258 Larrabee, E. J., & Co., Albany, N. Y. —Biscuit, crackers, etc. K 22. 661

259 Croft, Wilbur, & Co., Philadelphia, Pa.—Confectionery, lozenges, glace fruit, etc. K 26. 661

260 Morse, G. Byron, Philadelphia, Pa. —Plain and fancy cakes, milk and cream biscuits, rolls, buns, pastry, etc. K 26. 661

261 Chase & Co., Boston, Mass.—Confectionery. K 28. 661

262 Hartman, John, Philadelphia, Pa. —Crackers, cakes, and biscuits. K 24. 661

263 Weaver, J. R., Philadelphia, Pa.—Confectionery. K 27. 661

264 Schall & Co., New York, N. Y.—Ornamental confectionery. K 25. 661

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14

Animal and Vegetable Products, Textile Substances.

265 Mockridge, E., & Co., Philadelphia, Pa.—Azumea, bread, cakes, pastry, etc. K 21. 661

266 Greenfried & Strauss, Confectioners, 63 Barclay street, New York, N. Y. —Manufacturers of all kinds of confectionery, such as lozenges, pipe, gum-drops, pan-work, creams, extra imperials, fine almonds, medicated lozenges, chocolates, and pistache goods. Special attention given to the export trade. Goods packed for the South American market in glass and tins. Importers of and dealers in oils and materials for manufacturing confectionery. Manufacturers of XXX powdered sugar. Listas de precis en la lengua castillana à haber en la officina à Nueva York. K 26. 661

267 Dexter, E. M., & Co., Philadelphia, Pa.—Ornamental confectionery. K 27. 661

268 Laurent, F., N. W. cor. Arch and Sixth sts., Philadelphia, Pa. — Confectionery and decorative ornaments for cakes. Manufacturer of fine confectionery and ornaments for decorating cakes, such as bride's, centre-pieces, flowers, roses, gum-paste leaves, etc. K 28. 661

269 Henry Maillard, New York, N. Y. —Bonbons, chocolate, ornamental confectionery. K 25. 661

270 Thorn & Brother, Trenton, N. J.— Crackers, butter, oyster, wine, and scroll biscuit. K 24. 661

271 Geilfuss, H., Philadelphia, Pa.— Ornamental confectionery. K 28. 661

272 Heide & Wirtz, New York, N. Y.— Almond paste. K 23. 661

272*a* Page, D. L., Philadelphia, Pa.— Candies. K 26. 661

272*b* Palmer Baking-Powder Co., Philadelphia, Pa.—Baking powder. K 24. 661

273 Carrick, David, & Co., Philadelphia, Pa.—Crackers, cakes, ship-bread, etc. K 23. 661

274 Exton, Adam, & Co., Trenton, N. J. —Butter, oyster, and wine crackers. K 23. 661

275 Runkel, H., & Co., Clifton, N. Y.— Chocolate goods and cocoa for confectioners. K 28. 661

276 Snider Bros. & Co., Cincinnati, Ohio.—Cream biscuit K 23. 661

277 National Yeast Company, Seneca Falls, N. Y.—Dry-hop yeast cakes. K 17. 661

278 Smith's Homeopathic Pharmacy, New York, N. Y.—Alkethrepta, soluble chocolate, and chocolate confections. K 27. 661

279 Thurston, Hall, & Co., Cambridgeport, Mass.—Boston crackers. K 21. 661

280 Schall & Co., New York, N. Y.— Ornamental confectionery, representing the history of the United States. K 25. 661

Textile Substances of Vegetable or Animal Origin.

281 Murdock, Albert L., Boston, Mass. —Cotton from all countries. E 25. 665

281*a* Mohawk & Hudson Manufacturing Co., Waterford, N. Y.—Pressed cotton. S 8. 665

281*b* Tayler, D. M., Helena, Ark.—Raw cotton. D 25. 665

281*c* Pritchard, A., Galveston, Texas. —Raw cotton. E 24. 665

282 Claghorn, Herring, & Co., Philadelphia, Pa.—The cottons of the world. G 18 *and* 19. 665

282*a* Cheasham, John T., Bethany, Ga. —Cotton plants. F 24. 665

282*b* Campbell, George, Westminster, Vt.—Wool. E 14. 665

282*c* Maxwell, Edward, Delta, La.— Cotton. E 24. 665

282*d* Cotton Exchange, Memphis, Tenn. —Raw cotton. E 24. 665

282*e* Kellogg, Adam, Kellogg's Landing, La.—Bale of cotton. E 24. 665

282*f* McGaughy, B. R., Verona, Miss. —Cotton. E 24. 665

282*g* Gurney, Wm., Charleston, S. C.— Cotton and cotton plant. J 17. 665

282*h* Maxwell & Goodman, Delta, La. —Raw cotton. H 17. 665

282*i* Levy, Edward S., New Orleans, La.—Raw cotton. J 20. 665

282*j* Sledge, McKay, & Co., Memphis, Tenn.—Raw cotton. E 24. 665

282*k* St. Louis Cotton Exchange, St. Louis, Mo.—Raw cotton. D 24. 665

282*l* New Orleans Cotton Exchange, New Orleans, La.—Raw cotton. 665

283 State of West Virginia (collective exhibit).—Hemp and flax. F 19. 666

284 George Stratford, Jersey City, N. J. —Oakum. I 17. 666

285 Davey, W. O., & Sons, Jersey City, N. J.—Oakum. H 17. 666

286 Mills', B., Sons, Jersey City, N. J. —Oakum. H 17. 666

287 Collyer, Robert H., Chicago, Ills.— China grass. S 10. 666

288 State of Oregon, Portland, Oregon. —Wool and woolen fabrics. E 22. 667

289 Bond, George W., Boston, Mass.— Commercial wools. I 19. 667

290 Northern Ohio Woollen Mills, Cleveland, Ohio.—All-wool shoddies. I 18. 667

290*a* New Hampshire State Centennial Board.—Wool. E 20–21. 667

290*b* Hiatt, E. J., & Brothers, Chester Hill, Ohio.—Merino wool in fleece. F 24. 667

291 Wilkens, Theodore, New York, N. Y.—Hair moss for upholstering. E 26. 669

292 Mellen & Co., New York, N. Y.— Curled horse hair tickings. H 17. 669

293 Herzog, J., & Co., San Francisco, Cal.—"Eureka hair" (patented), good and clean substitute for curled hair. "Will not harbor moths or other vermin," cool and healthy material for mattrasses and upholstery. H 17. 669

294 Franklin Glue Works, Pittsburg, Pa.—Curled hair. K 20. 669

295 Wilkens, William, & Co., Baltimore, Md.—Bristles, horse-hair, fibre, curled hair, etc. H 17. 669

Machines, Implements, and Processes of Manufacture.

Machines, Implements, and Processes of Manufacture.

296 Collins & Co., Hartford, Conn.—Axes, hatchets, adzes, machetes, railway and mining tools, plows, etc. N 24. 670

297 Myers & Ervien, Office, 13 North Fifth st., Philadelphia, Pa.—Hay-forks, etc.; potato-drags. Manufacturers of hay, manure, spading, coke, charcoal, spall, barley, sluice, tanners', turnip, and oyster forks, potato and manure drags, etc. S 25. 670

297*a* Gibs & Lee, New York, N. Y.—Steam spader. M 24. 670

297*b* Hopkins, A. P., Bentleysville, Pa.—Road-scraper. C 21. 670

297*c* Kelsey, John, Yardleyville, Pa.—Harrow and scraper. L 26. 670

297*d* Maxwell, Rowland, & Co., Holmesburg, Pa.—Shovels, spades, and scoops. T 26. 670

297*e* Estes, William A., South Boston, Mass.—Plow, harrow, and stone truck. L 26. 670

298 Holland, Edward, Atlanta, Ga.—Buggy-plow and cultivator. K 24. 670

299 Harper, Smith, Philadelphia, Pa.—Steel hoes, rakes, etc. T 26. 670

300 Bean, H. & B. F., Pawling, Pa.—Corn-marker, cultivator, grain and seed sower. N 19. 670

301 Bateman, E. S. & F., Spring Mills, N. J.—Field and garden cultivators. N 23. 670

302 Peppler, Thomas, Hightstown, N. J.—Plow and cultivator. M 24. 670

303 Kissell, Blount, & Co., Springfield, Ohio.—Corn cultivator. N 24. 670

304 Bucher, Gibbs, & Co., Canton, Ohio.—Plows on revolving tables representing "1776 and 1876." L 24. 670

305 Decker, P. H., Chicago, Ill.—Hollow tooth harrow, and roller mold-board plow. P 26. 670

306 Ward, Samuel B., Locust Mount, Va.—Plow, rake, etc. L 24 670

307 Cooke & Foulke, Shelbyville, Ill.—Cultivator. M 19. 670

308 Park, H. & H., Mt. Victory, Ohio.—Fork, hoe, and broom handles. T 25. 670

309 Stuart & Kirkland, Jackson, Miss.—Plows. N 24. 670

309*a* Michigan Double Stave Barrel Co., Charlotte, Mich.—Barrels, etc. R 28. 670

309*b* Holland, Ed., Atlanta, Ga.—Buggy-plow. K 24. 670

310 Deere & Co., Moline, Ill.—Steel plows, gang and sulky plows, walking corn-cultivators. Q 24. 670

311 Morrison Brothers, Fort Madison, Iowa.—Self-cleaning iron and wood beam plow. L 24. 670

312 Sheble & Fisher, Philadelphia, Pa.—Hay and manure forks, rakes, potato-hooks, and manure-drags. S 25. 670

313 Wallace, Samuel J., Keokuk, Iowa.—Straddle-row cultivator. L 26. 670

314 Miller & Wallace, Keokuk, Iowa.—Texas plow. L 26. 670

315 Isaacs, Fred. H., Newark, N. J.—Sulky gang-plow. M 25. 670

316 Cotton, A. C., Vineland, N. J.—Reversible scuffle-hoe. D 17. 670

317 Heydrick, W. H. H., Philadelphia, Pa.—Steam plow, and farm engine. L 23. 670

318 Myer, B., Newark, N. J.—Plows. N 25. 670

319 New York Manufacturing Co., New York, N. Y. P 17.
a Plow, cultivator, etc. 670
b Corn-sheller, root-cutter, etc. 674

320 Brewster, Dodge, & Huse, Peru, Ill.—Wheel corn-cultivator, steel plows for old ground and for breaking prairie-sod. Q 26. 670

321 Greenwich Machine Works, Greenwich, N. Y.—Cultivator and shovel plow. M 26. 670

322 Richmond Plow Works, Richmond, Ind.—Steel plows. L 25. 670

323 Moline Plow Co., Moline, Ill.—Wood-beam plows, steel-beam plows, and cultivators. Q 26–28. 670

324 Laurence & Chapin, Kalamazoo, Mich.—Plows. M 24. 670

325 Muschert, B. F., Morrisville, Pa.—Cultivator plow. M 23. 670

325*a* Strombeck, Charles W., Syracuse, N. Y.—Harrow. L 27. 670

325*b* Bidwell, J. C., Pittsburg, Pa.—Plows, and steel castings. S 28. 670

325*c* Ellis, Minot, Greenfield, Mass.—Swivel plows. L 24. 670

325*d* Feenders, Harm., Charles City, Iowa.—Clod-crusher. Q 12. 670

325*e* Causland, McCoy, & Causland, Philadelphia, Pa.—Pick-axe. M 26. 670

325*f* Lamborn, Lewis, Hamorton, Pa.—Cultivator with attachment for eradicating potato bugs. N 28. 670

325*g* Cagwin & Young, Joliet, Ill.—Spading-plow. M 23. 670

325*h* Auburn M'f'g Co., Auburn, N. Y.—Agricultural hand implements. Intersection of aisle N and main transept. 670

326 Rogers, C. B., Philadelphia, Pa.—Cultivators, berry and fruit baskets. M 26. 670

326*a* Kroh, C. & P. G., Kroghville, Wis.—Cultivator. M 24. 670

326*b* Deats, L. M., & Co., Pittstown, N. J. N 23.
a Plows. 670
b Power corn-shellers. 674

327 Benson, B. S., Baltimore, Md.—Steam plow. N 9. 670

328 Speer, Alexander, & Sons, Pittsburg, Pa.—Iron and steel plows. M and L 28. 670

329 South Bend Iron Works, South Bend, Ind.—Chilled plows and attachments, specimens of chilled metal. P 26. 670

330 Hull, David H., Syracuse, N. Y.—Machine for stripping and booking tobacco. M 22. 670

331 Brous, T. Miles, Philadelphia, Pa.—Plows. M 24. 670

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14

Machines, Implements, and Processes of Manufacture.

332 Buford, B. D., & Co., Rock Island, Ill.—Plows and cultivators. O 28. 670

333 Wyckoff & McDonald, Hightstown, N. J.— Two-horse gang-plow. M 16. 670

334 Binder & Schweibing, Mauch Chunk, Pa.—Adjustable corn-plow. L 23. 670

335 Estes, William A., Boston, Mass. —Anti-friction plow. N 26. 670

336 Travis, A. B., Brandon, Mich. L 22.
a Horse wheat-hoe. 670
b Seed-drill. 671

337 Root, D., Son & Co., Mount Joy, Pa.—Steel and iron plows, cultivators, and agricultural steels. L 28. 670

338 Reynolds, E. D. & O. B., Brockton, Mass. N 25.
a Gang plows and attachments, cultivators, harrows, and horse-hoes. 670
b Seed-drills, planters, etc. 671

339 Allen, R. H., & Co., New York, N. Y. Q and R 25.
a Plows, cultivators, harrows, and horse-hoes. 670
b Seed-sowers. 671
c Corn-sheller and separator. 673
d Horizontal and vertical burr-stones, brick-machines, seed-hullers. 674

340 Chicago Plow Co., Chicago, Ill.—Plows and cultivators. P 28. 670

342 Avery, B. F., & Sons, Louisville, Ky.—Plows, cultivators, etc. N 28. 670

343 Walker, James R., Detroit, Mich.—Iron plow. K 28. 670

344 Harnish, Edward P., Felton, Del. L 22.
a Cultivator. 670
b Corn-planter. 671

345 Gregg & Co., Trumansburg, N. Y. R 20.
a Sulky-plow. 670
b Mowing-machine. 672

346 Hutchinson, Samuel, Griggsville, Ill.—Adjustable harrow. P 28. 670

348 Gifford, Johnson, & Co., Hudson, N. Y.—Pulverizing-cultivators, corn-cultivators, and hilling-plows. O 26. 670

349 Carr & Hobson, New York, N. Y. —N, O, *and* P 28.
a Plows and other agricultural implements. 670
b Hay-cutters, corn-shellers, mills, presses, etc. 674
c Churns. 675

350 Ames, Oliver, & Sons, North Easton, Mass.—Shovels, spades, scoops, and drainage tools. S 26. 670

351 Griffiths, George, Philadelphia, Pa. —Shovels, spades, handles, coal-hods, and pans. These goods are as produced at factory. We exhibit a spade used by Washington's army at Valley Forge. It was dug up by the late Rev. Dr. Brainerd. The handle replaced by one of style used at that date. T 27. 670

351*a* Fisher, Samuel, Philadelphia, Pa. —Gang-plow and cultivator-comb. O 26. 670

351*b* Orchard City Agricultural Works, Burlington, Iowa. P 28.
a Plows. 670
b Rakes. 672

351*c* Wayne Agricultural Company, Richmond, Ind. S 25.
a Cultivators. 670
b Drills. 671
c Mowers and reapers. 672

351*d* Bowers & Stitzer, Hackettstown, N. J. L 11.
a Beam-plow. 670
b Churn worked by a dog. 675

352 Bergstresser, E. L., Hublersburg, Pa.—Corn-planter. K 18. 671

353 Rowland, T., & Sons, Philadelphia, Pa.—Shovels and spades. T 17. 670

354 Walton, Silas, Moorestown, N. J. —Garden and field cultivator. L 25. 670

355 Rue, J. Chalmers, Englishtown, N. J.—Gang-plow. L 25. 670

356 Smith, Peter E., Scotland Neck, N. C. M 24.
a Sulky-plow. 670
b Cotton-seed planter. 671

357 Bayliss, Edwin, Massillon, Ohio. O 17–18.
a Wheel-harrow, iron cultivator, and shovel-plow. 670
b Harvester. 672

358 Ward's Fertilizer Co., Boston, Mass. M 26.
a Harrows. 670
b Potato-planter and digger. 671

359 Brown, Hinman & Co., Columbus, Ohio. T 25.
a Weeding-hoes, garden-rakes, manure and spading forks. 670
b Scythe-snaths, grain-cradles, hay-forks, etc. 672

360 Mabbett, Truman, Vineland, N. J. O 26.
a Hand and horse cultivators. 670
b Berry-crates. 674

361 Withington, Cooley, & Co., Jackson, Mich. T 25.
a Cast-steel hoes, rakes, and potato-hooks. 670
b Hay and manure forks, scythe-snaths, etc. 672

362 Morrison & Fay, Bryan, Ohio. M 25.
a Plow. 670
b Corn-sheller. 674

364 Brownback, P. N., Limerick Station, Pa. N 16.
a Threshing-machine, dust-conveyer, and plows. 670
b Self-acting hay-rake, mower, and reaper. 672
c Sausage-cutter, stuffer, etc. 674

366 Higganum Manufacturing Co., Higganum, Conn. L 25.
a Plows and agricultural implements. 670
b Corn-shellers, hay-spreaders, etc. 674
c Cider-mills, meat-cutters, etc. 673

367 Remington, E., & Sons, Ilion, N. Y. O 19.
a Plows, cultivators, hoes, shovels. 670
b Mower, horse and hand rakes. 672
c Cotton-gin. 673
d Milk-cooler. 675

368 Pennsylvania Agricultural Works, York, Pa. O *and* P 24.
a Plows, cultivators, and tools for cultivation. 670
b Seed-planter. 671
c Threshing-machines, horse-powers. 673
d Cotton-gins, steam-engines, and agricultural steels. 674

For locations of objects, indicated by letter and figure, see Key to Notation, p. 6; ground plan, p. 10.

369 New York Plow Co., New York, N. Y. N 21.
- *a* Plows, harrows, rollers, clod-crushers, etc. 670
- *b* Hay-rakes. 672
- *c* Corn-shellers. 673
- *d* Cider and wine mills. 674

370 Hillborn, Buckman, & Co., Newtown, Pa. Q 16.
- *a* Plows. 670
- *b* Mower, horse-rake, etc. 672
- *c* Corn-sheller. 673
- *d* Fodder-cutter. 674

371 Wheeler & Melick Co., Albany, N. Y. Q 7.
- *a* Ithaca or American wheel horse-rake. 670
- *b* Centennial self-acting wheel horse-rake. 672
- *c* Saratoga or New York wheel horse-rake. 672
- *d* Clover-huller, thresher and cleaner, thresher and shaker, straw-preserving thresher, one and two horse and lever powers. 673
- *e* Feed-mill, cutter, wood-sawing machine, horse pitchforks, etc. 674
- *f* Dog, calf, or donkey power, for churning, etc. 675

372 Allen, S. L., & Co., No. 119 South Fourth st., Philadelphia, Pa.—Farm and garden tools. Manufacturers of the Planet, Jr., hand seed-drills and wheel-hoes. Also of improved horse-hoes and cultivators, insect fumigators, etc. M 20. 671

373 Farmers' Friend Manufacturing Co., Dayton, Ohio.—Grain-drill and grass-seed sower, grain-drill and broad-cast seed sower combined, grain-drill and fertilizer combined. N 17. 671

374 Mast, P. P., & Co., Springfield, Ohio.—Grain-drills and seed-sowers, broadcast seeder and cultivator, riding or walking cultivator, and plow-sulky. M 17. 671

375 McSherry, D. E., & Co., Dayton, Ohio.—Grain and seed drills. We claim a positive force-feed, constructed in such a manner as not to allow any grain to pass that is not carried out by the spiral wheel working inside of a cap or case underneath the hopper; provided with a patent washer, which prevents the grain from being broken, and causing a regular flow of seed. It is regulated by the change of cog-wheels, which is simple, durable, and making positive quantities. The quantities per acre are not raised by the roughness of the ground or the box being full or nearly empty. It has also been used successfully in drilling corn, beans, peas, etc. It is provided with a grass-seed box, which can be used either in front or rear of machine. An iron lift-bar is attached, which is strong, neat, and durable, by means of which the hoes are raised out of the ground, and at the same time throwing the whole machine out of gear. To the drill is attached a long hoe, iron drag-bars which can be changed from single to double rake, or vice versa; added to this is an iron shaft-bar, which is held permanent by bolts, therefore not detracting from the strength of the frame. There is a light, strong frame, constructed with six pieces of timber and an iron axle running the whole width of it. It has a surveyor-chart, that measures the ground actually sown. It has high wheels, broad tread. We also have a spring hoe, known as the Willoughby patent. Weight of drill about 525 pounds.

The Rice drill has a positive force-feed, constructed with a spiral wheel, provided with two washers or disks, one at each end of feed-wheel, working inside of cap or case underneath the hopper, causing a regular flow of seed. The quantity is regulated by change of cog-wheels, making positive quantities. The frame is constructed of six pieces of timber, making it strong and durable. It is provided with a pair of shafts for one horse only. Has an iron axle running whole width of frame. It has high wheels, broad tread, and weighs about 400 pounds.

Broad-cast seeders. This is a positive force-feed, constructed with a spiral wheel and flange, working inside cap, thereby causing a regular flow of seed, and only allows such grain to pass out as is carried by the wheel. The washers at the side of the wheel protect the grain from being broken or injured. The quantity is regulated by changing cog-wheels, making a positive quantity sown. The roughness of the ground or the box being full or nearly empty has no effect on the discharge of seed. It has six iron spouts for the grain to pass through and scatter in front of the hoes. Has twelve hoes, six inches apart. The points are steel and are reversible; can be regulated to the depth desired. Has iron drag-bars, to which the hoes are attached. These being all under the main frame, with a lift-bar attached to raise them out of the ground. It has a grass and flax seed attachment, and has an iron axle running the whole width of the frame. Has high wheels, broad tread, and weighs about 450 pounds. M 18. 671

376 Campbell, J. & J. A., Harrison, Ohio.—Drill. M 23. 671

377 Buist, David, Philadelphia, Pa.—Seed-sower. K 19. 671

380 Clarridge, John, Mt. Sterling, Ohio.—Corn and cotton-seed planter. M 17. 671

381 S. J. Waite Manufacturing Co., Worcester, Mass. N 22.
- *a* Breast-drill, corner-brace, saw-sett, and lathe. 671
- *b* Apple-parer. 674

382 Nash & Brother, New York, N. Y.—Potato-planter. N 19. 671

383 Selby, James, & Co., Peoria, Ill.—Corn-planter. M 22. 671

383*a* Beatty, Matthew O., Concord, N. C.—Cotton-planter, guano-distributor, and cultivator combined. M 23. 671

384 Bickford & Huffman, Macedon, N. Y.—Grain-drill and attachments. L 18. 671

Last fall Bickford & Huffman were invited by chief of Centennial bureau to perform seeding of grain for the field trial to take place this year at Philadelphia. Seeding accomplished with following results: Actual measurement of ground $45\frac{52}{100}$ acres. Field to be sown with wheat 5 pecks to the acre. Quantity required 56 bushels 54½ pounds; quantity sown, 57 bushels 27½ pounds—an excess of only 33 pounds upon entire field of $45\frac{52}{100}$ acres, or less than ¾ pound excess per acre. To account for which, if it need

be accounted for, three headlands, upon which were lapped three tubes, were sown. This result was considered very satisfactory, and demonstrates the accuracy of the quantity-wheel. The fertilizer attachment, which has been transferred to the rear, is an improvement, and makes the distribution even and uniform. The machine is nicely balanced, and the weight removed from the horse's neck.

385 Hall, H. L., Chicago, Ill.—Combined seed-sower and cultivator. L 19. 671

386 Vandiver Corn-Planter Co., Quincy, Ill.—Corn-planter. M 19. 671

387 Stokes, F. N., Urbana, Ohio—Planter, fertilizer, and pulverizer. K 18 *and* 19. 671

387*a* Cooper, Mark, Union, S. C.—Combined fertilizer, refiner, and seed-planter. M 22. 671

387*b* Brown, H. L. & C. P., Shortsville, N. Y.—Grain-drill, with and without attachments. M 21. 671

388 Hoosier Drill Co., Milton, Ind.—Wheat-drill with grass-seed attachment, corn-drill. K 15. 671

388*a* Screw Mower and Reaper Co., Philipsburg, N. J.—R, S, *and* T 15.
a Grain drills. 671
b Mowing and reaping machines. 672
c Hay and stalk cutters. 674

390 Johnson & Gere, Owego, N. Y.—Grain-drill and attachments, fertilizer-sower. L 19. 671

390*a* Gibbs & Lee, Brooklyn, N. Y.—Steam spader. M 24. 671

390*b* Rothchild, Joseph, Shelbyville, Ky.—Corn-planter. K 18. 671

391 Eagle Manufacturing Co., Davenport, Iowa. M 26.
a Walking cultivator. 671
b Sulky rake. 672

392 Asay & Wood, Philadelphia, Pa.—Combined corn-planter, fertilizer-distributor, and deflecting cultivator. N 22. 671

392*a* Bliss, B. K., & Sons, seedsmen, 34 Barclay St., New York, N. Y. Randolph's hand seed-sower, for sowing all kinds of garden-seeds with accuracy and despatch, can be easily operated by a lady or child. Highly recommended by experienced gardeners and farmers. Its cost is trifling, compared with the advantages resulting from its use. The saving in time and seeds will undoubtedly repay the outlay in the planting of a single week. $1.25 each. Sent by mail, postpaid, to any address in the U. S. upon receipt of $1.50.

Randolph's fertilizer distributor, for distributing all kinds of concentrated fertilizers, as phosphates, guano, ashes, plaster, or chemical manures, without touching the material with the hands, a matter of some importance when caustic substances are used. One man can do the work of three by the ordinary method. Price, $5. B 28. 671

393 Crowell, J. B., & Co., Green Castle, Pa.—Grain, guano, and grass-seed drills. L 12. 671

394 Willoughby, James D., Philadelphia, Pa.—Grain-drill, with and without fertilizer attachment. L 22. 671

395 Sweeney, Hugh M., Worcester, Mass.—Liquid fertilizing machine. I 21. 671

396 Springfield Manufacturing Co., Springfield, Ill.—Climax corn-planter. L 19. 671

An excellent two-horse check row corn-planter; six chamber rotary drop; universal wrought-iron coupling; broad steel runners; woven wire open heel; simple in construction; certain in operation. Send for illustrated circular.

398 Rentchler, D. & H., Belleville, Ill.—Grain and seed drills. M 19. 671

399 Heamer, Andrew J., Pittsfield, Ill.—Hedge-trimmer. M 14. 671

400 Seymour, John B., Philadelphia, Pa.—Box-hoe seed-planter. T 8. 671

401 Rutschman Bros., Philadelphia, Pa. S 24.
a Self-feeding hand-drill. 671
b Meat-chopper. 674

402 Keystone Manufacturing Co., Sterling, Ill. L 19.
a Corn-planter. 671
b Corn-sheller, cider mill and press. 673

403 Esterly, George, & Son, Whitewater, Wis. P 20 *and* 21.
a Cultivator and seeder combined. 671
b Harvester, self-raking reaper. 672

404 Brown, George W., Galesburg, Ill.—N 15.
a Corn-planter. 671
b Field corn-stalk cutter. 672

405 Goodell Co., Antrim, N. H. T 14.
a Broadcast seed-sower. 671
b Apple-parers, peach-parers, cherry-stoners, etc. 674

406 Hagerstown Agricultural Implement Manufacturing Co., Hagerstown, Md. R *and* S 26.
a Grain, seed, and fertilizing drills. 671
b Clover huller and cleaner. 673
c Feed-cutter. 674

407 Williams Bros., Ithaca, N. Y. P 12.
a Fertilizer and grain-sower. 671
b Horse hay-rake. 67-
c Portable engine. 67-

408 Adriance, Platt, & Co., New York N. Y.—Self-raking reapers and mowers T 15. 67-

408*a* Rank, Amos, & Co., Canton, Ohio—Mowers, reapers, etc. K 13. 67-

408*b* Perry, John G., Kingston, R. I.—Mowers. P 22. 67-

408*c* Johnston, Samuel, Brockport, N. Y.—Automatic harvesters and binders. P 13–14. 672

409 Eagle Mowing & Reaping Machine Co., Albany, N. Y.—Mowing and reaping machines. T 18. 672

410 Osborne, D. M., & Co., Auburn, N. Y.—Mowing and reaping machines. O 13 *and* 14. 67-

411 Wood, Walter A., Hoosac Falls, N. Y. S *and* T 13–14.
a Droppers. 671
b Mowers, reapers, harvesters, etc. 672

412 Warder, Mitchell, & Co., Springfield, Ohio.—Reapers and mowers. P 15. 672

413 Thomas, John H., & Sons, Springfield, Ohio.—Sulky-spring tooth hay-rake. L 15. 672

Machines, Implements, and Processes of Manufacture.

413*a* Kelly, William E., New Brunswick, N. J.—Reciprocating screw mowing-machine. R 17. 672

413*b* Chaplin, C. H., Tecumseh, Mich. —Rake. L 14. 672

413*c* Schenck, P. C., jr., Neshanic, N. J. —Mower and reaper. K 15. 672

413*d* Wells, French, & Co., Chicago, Ill. —Potato-digger. R 24. 672

413*e* Whiton, David E., West Stafford, Conn.—Mowing-machine. R 14. 672

413*f* Mills, Peck, & Co., Otsego, Mich. —Field and garden hoes. R 28. 672

414 Whiteley, Fassler, & Kelly, Springfield, Ohio.—Reapers and mowers. O 15 *and* 16. 726

415 Prout, H. N., Westfield, Mass.—Adjustable hoeing-machine. Q 28. 672

416 Ohmer, Augustus J., Hamilton, Ohio. — Hand mowing-machines. M 13. 672

417 Dodds, John, Dayton, Ohio.—Sulky horse hay-rakes. M 15. 672

418 Barnes, George, & Co., Syracuse, N. Y.—Mower-knives, reaper-sickles, spring keys, and cotters. M 15. 672

419 Taylor, B. C., Dayton, Ohio.—Wheel horse hay and grain rake. L 14. 672

420 Coates, A. W., Alliance, Ohio.—Lock-lever horse hay-rake. L 15. 672

421 Whittemore Bros., Boston, Mass.—Hay-rake and feed-cutter. L 20. 672

422 Chadborn & Coldwell, Newburgh, N.Y.—Lawn-mower; smoked-beef cutter. N 13. 672

423 Wisner, J. E., Friendship, N. Y.—Self-discharging rake. M 14. 672

424 Converse, Bolivar C., Springfield, Ohio.—Reaping-machine. R 16. 672

425 Eagle Company, Riverton, Conn.—Grain, grass, and bush scythes, grass-hooks, corn and hay knives. T 25. 672

426 Huber Manufacturing Co., Marion, Ohio.—Revolving hay-rake. L 16. 672

427 Dutton, R., Yonkers, N. Y.—Reaping and mowing machine. R 25. 672

428 Rochester Agricultural Works, Rochester, N. Y.—Reapers and mowers. T 14. 672

429 Seiberling, J. F., Akron, Ohio.—Mower and attachments. Q 14. 672

430 Whitman & Miles Manufacturing Co., Akron, Ohio.—Mowing and reaping machine knives, sickles, and sections. T 18. 672

431 Aultman, Miller, & Co., Akron, Ohio.—Mower with table-rake reaper. Q 15. 672

431*a* Royce, John S., Cuylerville, N. Y. —Reapers. Q 25. 672

431*b* Gordon, James F., Rochester, N.Y. —Self-binding harvester. P 17. 672

432 Spink, James L., & Co., Minneapolis, Minn. — Mowers and reapers. Q 14. 672

433 Bellaire Manufacturing Co., Bellaire, Ohio. — Mower and reaper. P 14. 672

434 Russell, C., & Co., Canton, Ohio.—Self-raker, reaper, and mower combined, single mower. R 14. 672

435 Tschop, Albert, Harrisburg, Pa.—Self-dumping wheel hay-rake. L 15. 672

436 Hewit, John C., Pennsgrove, N. J. —Potato-digger. M 16. 672

437 New London Scythe Co., New London, N. H.—Scythes. Q 28. 672

437*a* Haynes, W. H., North Sudbury, Mass.—Hay-elevator. M 21. 672

438 Graham, Emlen, & Passmore Philadelphia, Pa.—Lawn-mower. L 12 *and* 14. 672

439 Nellis, A. J., Pittsburg, Pa.—Harpoon horse hay-fork. Nellis' O. H. H. H. fork and patent method for mowing and stacking hay or straw. Will save the farmer its cost every season. Also manufacturers of agricultural steels, and Nellis' patent cotton-tie steel-tempered by Nellis' process to suit all kinds of soil. Samples free. Address A. J. Nellis & Co., Pittsburg, Pa. S 17. 672

440 Field & Carpenter, Port Chester, N. Y. — Self-discharging hay-rake. L 15. 672

440*a* Ball, Samuel, Cogan's Station, Pa. —Grain-cradle. L 22. 672

440*b* Strait, H., Troy, N. Y.—Potato-digger. O 26. 672

440*c* Long, Allstatter, & Co., Hamilton, Ohio. L 14.
a Rake, knives, sickles, mower, etc. 672
b Fodder-cutter. 674

441 Clegg, Wood, & Co., Dayton, Ohio. —Self-discharging hay-rake. L 15. 672

442 Hills' Archimedean Lawn-Mower Co., Hartford, Conn.—Lawn-mowers. N 13. 672

443 Norton, James, Hightstown, N. J. —Potato-digger, and Rigg's patent gang-plow, for cultivating corn, cotton, potatoes, etc., manufactured by Wyckoff & McDonald, Hightstown, N. J. M 16. 672

444 Fisher, Henry, Canton, Ohio, U. S. A.—Patent prairie-mower knife-grinders, for sharpening harvester-knives; patent farm and plantation bells; patent ladles, hay-knives, harvester-knives, sections, etc. Illustrated descriptive circulars sent free upon application. T 24 672

445 Gibbs & Sterrett Manufacturing Co., Corry, Pa.—Mower and attachments hay-conveyer. Q 17 *and* 18. 672

446 The Johnston Harvester Co., Brockport, N.Y.—Self-raking reaper, harvester, mower, and automatic grain-binder. O 20 *and* 21. 672

447 Pennock Manufacturing Co., Kennett Square, Pa.—Corn-sheller and hay-fork. Q 12. 672

448 Wright, James W., Minneapolis, Minn.—Grain-harvester and binder. N 22. 672

449 Superior Mower & Reaper Works, A. J. Sweeney & Son, Proprietors, Wheeling, W. Va. — Mowing-machine without cog-wheels or shafts; a worm-wheel on the axle drives a double-threaded steel screw, which directly operates the knife. P 16. 672

450 Bradley Manufacturing Co., Syracuse, N. Y. — Self-dumping hay-rake, mower, and self-raking harvester. Q 14. 672

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14

Machines, Implements, and Processes of Manufacture.

451 Norwalk Lawn-Mower Co., Norwalk, Conn.—Lawn-mowers. M 14. 672

452 Chapman Binder Co., Rochester, Minn.—Reaper and binder. T 17. 672

453 Towanda Eureka Mower Co., Towanda, Pa.—Mower and reaper. Q 19. 672

454 Bartram Sewing-Machine Co., Danbury, Conn.—Revolving cutter lawn-mowers. M 14. 672

455 Perry, Stuart, Newport, N. Y.—Hay-tedder. M 15. 672

457 Hand, S. A., Philadelphia, Pa.—Lawn-mower. M 13. 672

458 Mayo, M. C., Boston, Mass.—Mowing-machine. T 19. 672

459 Nye, S. R., Winchendon, Mass.—Horse-rake. The peculiarities of the S. R. Nye and Improved Bay State Rake are: 1st. The peculiar shape of the teeth, those at each end being brought forward of those in the centre, which prevents the hay from scattering or roping out. This is particularly advantageous when working on a side, hill, or gleaning. 2d. Also the manner of holding each tooth in its proper position laterally by what is called the guide, which prevents them from flopping about. 3d. Each tooth is independent of all others, thereby enabling it to pass over an obstruction twenty inches high without in the least affecting the teeth next by the side of it. 4th. The dumping arrangement, whereby any boy or girl who can drive a horse can rake as well as a man, as it is dumped entirely by the power of the horse. 5th. This rake has been submitted to some of the best mechanical talent in the country, who have pronounced it, with these improvements, to be simple and durable, having the unqualified approbation of farmers everywhere. 4000 of these rakes will be manufactured for the harvest of 1876. L 15. 672

460 Treman, Valentine, & Green, Ithaca, N. Y.—Corn sheller and hoe. L 27. 672

461 Maule, James S., Lewisburg, Pa.—Mower and automatic reaper. S 17. 672

462 Ithaca Agricultural Works, Ithaca, N. Y.—Wheel-rake and attachments. N 15. 672

463 Holt, Hiram, & Co., East Wilton, Me.—Grass and bush scythes, hay-knives, etc. T 25. 672

464 Read, C. A., Bridgeport, Conn.—Lawn-mower. M 14. 672

465 Morgan, D. S., & Co., Brookport, N. Y.—Reaping and mowing machines. P 18. 672

466 Goodwin, William F., Stelton, N. J.—Mowing and reaping machine. Q 13. 672

467 Kenyon Brothers, Carbondale, Pa.—Potato-digger. M 15. 672

468 Mann, H. F., Pittsburg, Pa.—Harvesting and mowing machine. S *and* T 19. 672

469 Gammon & Deering, Chicago, Ill.—Harvester, automatic binder, wind-mill. No class of farm machinery has undergone so many valuable changes by way of improvements during the past forty-three years as the reapers, mowers, and harvesters. This reaper is protected by the patent secured by C. W. & W. W. Marsh in 1858, which saves the labor and annoyance of three men in binding the grain as it comes from the machine. In the Western and Middle States, where the grain is grown most extensively, the Marsh harvester is sold in great numbers. The Marsh harvester, which is popularly known in the West as the King of the Harvest Field, combines the essential features of simplicity, utility, durability, and lightness of draft. As it is the original of the harvester class, which has so completely revolutionized the trade in nearly all classes of these machines, it is but fair to say that the proprietors, who have made this machine such a wonderful success, have spared neither pains nor money in adding from year to year the many improvements so well known in its mechanism and general appearance. The Marsh harvester is a light machine, only weighing 800 pounds. It is made of the best material, all the timber used being seasoned at least three years, every part liable to breakage being especially well and carefully made. It cuts the grain clean, with little waste, takes up, down, and crinkled grain, and draws easily with two horses. The farmer who purchases a Marsh harvester is sure to get a thoroughly tried and popular machine. The Plano Gordon self-binding harvester and automatic wire-binder, which the inventors have been for several years in perfecting, is acknowledged by experienced mechanics a good and highly valuable addition. While the inventors do not claim for the automatic binder perfection, they do claim that the present one works very satisfactorily. A large number are in use in the West and Southwest; and from the numerous testimonials from farmers and local committees appointed to test their merits, there can be no question that the binder is very valuable and fast becoming in general use. The harvester, together with the automatic binder, is in all respects first class, as it works almost to perfection, binds the bundles tight, and does not leave the straw unbound upon the field. It reduces the labor of harvesting to the very minimum, shortens the time in completing the work, is in no way complicated, is not likely to get out of order, and one trial commends it to those desiring to purchase a first-class machine. It is labor-saving, manifestly popular, does clean, economical work, has been fully tested, embodies the improvements of many years, and its work will pay for it in a short time, reducing as it does the cost of harvesting to the farmer. O 20 *and* 21. 672

470 Handy Horse Hay-Fork Co., Conneautsville, Pa.—Hand horse hay-fork. L 22. 652

471 Otis Brothers & Co., New York, N. Y.—Mowing-machine.
The hay-maker is noiseless, light-draft, very strong, and of great cutting power. The knife is actuated by a new mechanical movement consisting of but two pieces. S 22. 672

472 Harrison Manufacturing Co., Lansing, Mich.—Rubber-lined knife-head for reapers and mowers. T 17. 672

For locations of objects, indicated by letter and figure, see Key to Notation, p. 6; ground plan, p. 10.

473 Champion Machine Co., Springfield, Ohio.—Reapers, mowers, rakers, and droppers. Q 15. 672

474 Hanes, John, Moorestown, N. J.—Corn-sheller. T 23. 672

475 Lewis, James H., Detroit, Mich.—Potato-digger. N 15. 672

476 Richardson Manufacturing Co., Worcester, Mass.—Combined mower and reaper, hay-tedder, etc. M 14. 672

478 Collyer, Robert H., Chicago, Ill.—Flax machinery. S 10. 672

479 Lee, James, jr., Stonersville, Berks Co., Pa.—Hay-tedder with cr without rake. Merit: superior manner in which it turns the hay. L 15. 672

480 Westfall, D. B., Lyons, N. Y.—Potato-digger. L 16. 672

481 Gulick, Edwin, New Brunswick, N. J.—Safety-seat for harvesters and mowers. T 8. 672

483 Vermont Farm Machine Co., Bellows Falls, Vt.—Gleaner, horse, hay, and grain rake. K 15. 672

484 Dunn Edge Tool Co., West Waterville, Me.—Scythes, axes, grass-hooks, hay, straw, and corn knives. R 24. 672

485 Riggs, M. B., Palmyra, N. Y.—Potato-digger. L 26. 672

486 Stevens, Ansel, Gorham, Maine.—Mower. T 21. 672

487 McMentry, John, Lexington, Ky.—Reaper and mower. P 17. 672

488 McPherson, D., Caledonia, N. Y.—Automatic grain-binder. R 17. 672

489 Patrons' Manufacturing Association, Indianapolis, Ind.—Direct draft mower. L 25. 672

490 Aultman, C., & Co., Canton, Ohio. Q *and* R 22.
a "New" Buckeye mower. 672
b Improved Buckeye mower. 672
c Improved Buckeye mower and dropper. 672
d Improved Buckeye mower and table-rake reaper. 673

491 Stratton & Cullum, Meadville, Pa.—Hay-loading machines. S 25. 673

492 Sandwich Manufacturing Co., Sandwich, Ill.
a Harvester. 672
b Self-feeding corn-sheller. 674

The Adams and French harvester differs from other riding and binding machines in not using canvas or belts, and cuts and elevates grain, wet, green, or dry. There are many good reasons why this harvester is considered by experienced mechanics and farmers to possess many excellences, which have been recently added in the various improvements, some of them being entirely new, giving it very decided advantages. First, it uses no canvas or belts; the vibrating rakes carry the grain uniformly, evenly, and with great accuracy. Second, the raking apparatus is peculiarly constructed, so that it cannot be affected by weeds or dampness; and this feature the farmer will recognize. Third, it has capacity for three binders when time presses; this capacity is of very great importance, as time is money, especially in the Western States, where this machine is mostly sold. It is manufactured in Sandwich, Ill., and principally sold in Kansas, Nebraska, Illinois, Missouri, Iowa, and Oregon. The Adams patent self-feeding power corn-sheller, known as picker-wheel machine, is a strictly automatic corn-shelling machine. The corn is shelled from the cob in much the same way it would be done by hand, and without subjecting the ears to undue pressure, in consequence of which the cobs are not broken and mixed with the grain and the kernels are not cracked and ground. The annual product of corn is immense; and to properly and expeditiously prepare it for our market is a herculean task, but, aided by these thorough and cleaning shellers, the corn is rapidly made ready, and is in the best possible condition, the quality of the work being above just criticism. To this is added the adaptability of the machines to all qualities of corn, frosted, sound, or soft, and performing a great amount of work in a given time, with a given power, leaving the cob whole, suitable for fuel when needed, and the corn perfectly clean. The self-feeding is a saving of much labor and considerable expense, and commends the machine wherever introduced. The farmers' sheller is a compact little machine, but cannot take the place of the self-feeders being designed for individual use, avoiding the delays of making use of self feeders, often owned by a number, who are compelled to wait one on another. S *and* T 20–21.

493 Rue, George W., Hamilton, Ohio. N 15.
a Garden-cultivator. 670
b Potato-digger. 672

494 Pritz, A., & Sons, Dayton, Ohio. S 16.
a Grain-drill. 670
b Field-roller. 671
c Self-raking reaper and mower. 672

The Centennial Dorsey self-raking reaper and mower, combined with controllable rake. A. Pritz & Sons, manufacturers, have added to this reaper a perfect controllable self-rake, and one that can be operated by the driver to rake off at will, or the sheaf can be held as long as desired.

The "Centennial Dorsey" will be made with five rakes, either of which can be made to rake the sheaf or act as a reel, as the driver may see fit. The reaper, when left alone, will make one sheaf every revolution of the rakes, but the driver can instantly and very easily make any rake make a sheaf. In heavy grain a sheaf can be made of any size, from one to five sheaves in every sixteen feet of ground gone over, and in light grain the rakes can be held until the proper amount of grain may be on the platform. The Centennial Dorsey rake being under the control of the driver, any size sheaf can be made. This reaper is strong and durable; has no side draught; has the weight on the rakes and drive-wheel; is easily managed, being entirely automatic and under the control of the driver.

495 Harbert & Raymond, Philadelphia, Pa. P 10.
a Mower and hay-rakes. 672
b Threshing-machine and clover-mill. 673
c Portable steam-engine, portable saw-mill, and hay-cutters. 674

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp 12–14.

Machines, Implements, and Processes of Manufacture.

496 Burt, Hildreth, & Co., Harvard, Mass. N 14.
a Burt's Union horse-power. The pivots and axles are all hardened and durable. Large truck wheels, and runs easy and at low elevation.
Lawn mower, recent invention. 672
b Rocking saw-table, pendulum-balanced, rapid and safe, for sawing cord-wood.
Wood-splitter, cheap, simple, and efficient. 674

497 Cohu, A. B., New York, N. Y. P 28.
a Rake. 672
b Corn-sheller, stalk-cutter, hand-saw-mill. 674
c Churn. 675

498 Richardson, William H., Philadelphia, Pa.—Corn-husking machine, machine for cutting standing corn and husking. T 22. 673

499 Pitts, H. A., Sons, Manufacturing Co., Chicago, Ill.—Thresher, separator, and cleaner, horse-power. S 19. 673

500 New Era Manufacturing Co., Elmwood, Ill.—Grain-grader, grain-separator, smut ball extractor, scourer, and wheat-brush machine. R 23. 673

500*a* Hall's Self-Feeding Cotton-Gin Co., Sing Sing, N. Y.—Self-feeding cotton-gin and condenser. K 11. 673

500*b* Keller, Henry, Sank Centre, Minn.—Farm mills. T 25. 673

500*c* Kibler, N., Pittsfield, Ill.—Farm mills. M 25. 673

500*d* Freeman & Clark, Racine, Wis.—Farm mill; grain and seed separator. F 28. 673

500*e* Birdsell Manufacturing Co., South Bend, Ind.—Thresher, cleaner, huller, etc. L 18. 673

500*f* Ellis, Hoffman, & Co., Pottstown, Pa.—Endless chain horse-power thresher and cleaner. L 11–12. 673

500*g* Lidy, Geo. F., & Co., Waynesboro', Pa.—Fanning-mill, grain and seed separator. T 26. 673

501 Albion Coffee-Huller Co., New York, N. Y.—Coffee hulling, polishing, and separating machine. O 22. 673

502 Brayley, James, Buffalo, N. Y.—Threshing-machine and double pinion horse-power. T 7 and 8. 673

503 Shreiner, J. H., Mechanicsburg, Pa. T 26.
a Grain-drill and shovels. 671
b Grain-fan and seed-separator. 673

504 Case, J. I., & Co., Racine, Wis.—Threshing-machine. T 9. 673

505 Tubbs, Hoyt, Osceola, Pa.—Grain separator and cleaner, separator and fanning-mill. S 8. 673

505*a* Pierpont, Wm., Salem, N. J.—Threshing-machine with grain and seed separator. S 7. 673

505*b* Stone, Sarah M., & Porter, Samuel G., Lancaster, Pa.—Grain-fan. T 27. 673

505*c* Hulshizer & Larzelere, Doylestown, Pa. P 9.
a Horse-power, thresher and cleaner, thresher and shaker, cutting boxes. 673
b Corn-shellers. 674

505*d* New York Manufacturing Co., New York, N. Y.—Wine press. P 17. 673

506 Heebner & Sons, Lansdale, Pa.—Horse-powers, threshers, separators, and cleaners. O 7. 673

507 Cartrite, Barnard, Norwalk, Ohio.—Fanning-mill, box of grain and fixtures. T 28. 673

508 Kenosha Fanning-Mill Co., Kenosha, Wis.—Fanning-mill. S 28. 673

509 Miller, A. S., Republic, Ohio.—Fruit-ladder. T 23. 673

510 Fay, C. J., Camden, N. J.—Portable hay and cotton press. R 11. 673

511 Spence, L., Martin's Ferry, Ohio.—Thresher and cleaner, double cleaner, horse-power, etc. O 8. 673

512 Brown Cotton Gin Co., New London, Conn.—Cotton-gin with feeder and condenser; presses. P 21 *and* Q 12. 673

513 Nichols, Shepard, & Co., Battle Creek, Mich.—Grain-thresher, separator, and cleaner. R 7 *and* 8. 673

514 Kenyon, Silas R., Newark, N. J.—Corn-husking machine. S 26. 673

514*a* Hafner, John A., Pittsburg, Pa.—Threshing-machine gear and coil springs. K 12. 673

514*b* Cockle Separator Manufacturing Co., Milwaukee, Wis.—Separating machines. Q 11. 673

515 Hagerstown Steam Engine and Machine Co., Hagerstown, Md.—Grain threshing, separating, cleaning, and bagging machine. R 26. 673

516 Harder, Minard, Cobleskill, N. Y.—Railway horse-power, thresher and cleaner, model of railway horse-power. M *and* N 7. 673
The two Grand Gold Medals were awarded Harders' two-horse power, and thresher and cleaner, at the great National Implement Trial, Auburn, N. Y., for "slow and easy movement of the horses, fifteen rods less than one and one-half miles' travel per hour; thorough and conscientious workmanship and material in every place; nothing slighted; mechanical execution of the very best kind," as shown by official report of Judges, distributed at column M 7, Agricultural Hall, International Exhibition.

517 New Hampshire State Centennial Board. E 20–21.
a Agricultural implements. 673
b Freezers. 675

518 Read, Calvin D., & Ellis D., Ayer, Mass.—Corn-sheller. N 22. 673

518*a* Wakeman, R., Port Deposit, Md.—Hay or cotton press. M 10 *and* 11. 673

518*b* Scattergood, H. V., Philadelphia, Pa.—Cotton-gin and feeder. L 14. 673

518*c* Basset, Nathan, Philadelphia, Pa.—Sifting-machines. T 23. 673

518*d* Brown Cotton-Gin Co., New London, Conn.—Cotton-gins. Q 12 673

518*e* New York Cotton-Gin Co., New York, N. Y.—Hand-gin. S 7. 673

518*f* Cardwell, J. W., & Co., Richmond, Va.—Rice-thresher. K 7. 673

518*g* Jones, John A., Mt. Pleasant, Del.—Potato-assorter. L 27. 673

519 Sheeler, Buckwater, & Co., Royers Ford, Pa.—Horse-power and threshing-machine. K 10–11. 673

520 Kahnweiler, David, New York, N. Y.—Cotton-seed huller. S 11. 673

Machines, Implements, and Processes of Manufacture.

521 Judkins, Mark D., Osakio, Minn.—Self-sacking grain-separator. T 8. 673

522 Shields & Bro., Philadelphia, Pa.—Corn-huskers. B 24. 673

523 Westinghouse, G., & Co., Schenectady, N. Y.—Grain-threshing machine. T 25. 673
The exhibitor claims these advantages: a complete cylinder and concave, no loosening of teeth, unusual separating capacity, and perfect cleaning apparatus.

524 Pumphrey, W. F., Fairfield, Iowa.—Seed-mill and grain-separator. S 7. 673

525 Wood, O. K., & Co., West Chazy, N. Y.—Grain and seed separator and fanning-mill combined. T 28, *wall*. 673

526 Silver & Deming Manufacturing Co., Salem, Ohio. Q 23.
a Endless chain, two horse-power, for general purposes. 673
b Drag sawing-machine, feed-cutters, etc. 674

527 Gaar, Scott, & Co., Richmond, Ind. O 9.
a Grain thresher, separator, and cleaner. 673
b Portable farm-engine. 674

528 Manley, Almond D., Washington, Mich. R *and* Q 9. 674
Mounted railway tread-power and circular wood-saw. Notable features of power, centre balance, elevation easily varied when running, wrought chain, no cogs, centre roller drive, motion controlled by governor, runs steady with belt off, least traverse wheels, remarkable durability, greatest power at given elevation, never removed from trucks. 674

529 Blymyer Manufacturing Co., Cincinnati, Ohio. M *and* N 8. 673
a Thresher and cleaner, corn-cob crushers, etc. 673
b Cane-mills, steam-engine, sugar-evaporator, etc. 674

529*a* Wagoner, Elijah, Westminster, Md.—Feed-cutter and masticator. S 7. 673

530 Evans & Baird, West Chester, Pa. T 7 *and* 8.
a Horse-railway power and thresher. 673
b Dairy churn and power. 675

531 Rankin Manufacturing Co., Allegheny, Pa.—Hand and power meat-choppers, sausage-stuffers, portable engine, etc. L 12. 674

532 Post, C. C., Burlington, Vt.—Implements for making maple sugar. C 24. 674

533 Slocum, W. H., & Bro., Philadelphia, Pa.—Apple-parer and corer, meat-cutter, raisin and currant cleaner. T 23. 674

533*a* Hughes, H. D., Radnor, Pa.—Flour barrel. A 22. 674

533*b* Evans, Wm. P., Malvern, Pa.—Wheat-feeder, oscillating engine, etc. J 25. 674

533*c* Mosher, A. J., Portland, Me.—Bag-holder. A 27. 674

533*d* Best, John, Lancaster, Pa.—Agricultural engines. K 8. 674

533*e* Branden Manufacturing Co., Branden, Vt.—Howe scales. P 13. 674

533*f* Frederick, L. W., Hall, Ind.—Wagon. S 23. 674

533*g* Fairbanks & Ewing, 715 Chestnut st., Philadelphia, Pa.—Scales (manufacturers, E. and T. Fairbanks & Co., St. Johnsbury, Vermont), railroad track, weigh-lock, hay, coal, platform, and counter scales of all descriptions, fine gold and druggists' scales; also improved testing-machines for ascertaining the strength of metals, etc. Principal warehouses: Boston, New York, Philadelphia, Baltimore, New Orleans, San Francisco, St. Louis, Chicago, Louisville, Cincinnati Cleveland, Buffalo, Pittsburg, Albany, Montreal, and London, England. L 24. 674

533*h* Day, S. A., & Co., Baltimore, Md.—Automatic incubator for hatching eggs. B 23. 674

533*i* Cooper, J. G., Scranton, Pa.—Wagon-spring brace. S 28. 674

533*j* Donner & Suhl, San Francisco, Cal.—Hay and stalk cutter. M 23. 674

533*k* Skinner & Wood, Erie, Pa.—Boiler and engine. K 8. 674

533*l* Chandler & Taylor, Indianapolis, Ind.—Farm-engine and saw-mill. R 11 *and* 12. 674

534 Boyer, Wm. L., & Bro., Philadelphia, Pa.—Farm grist-mills, railway horse-power, feed-cutter, lawn-mowers, saw-table, broom-winder. R 24. 674

535 Nittinger, A., jr., & Son, Philadelphia, Pa.—Butchers' machinery, tools, and supplies. T 24. 674

536 J. C. Hoadley Co., Lawrence, Mass.—Portable steam-engines. L 7. 674

537 Empire Portable Forge Co., Troy, N. Y.—Portable fan-blowing forges for farms. T 22. 674

537*a* Lee, E. S., & Co., Rochester, N. Y.—Tree pruner. Q *and* R 25. 674

537*b* West Grove Manufacturing Co., West Grove, Pa.—Liquid atomizer. N 10. 674

537*c* Wharry, John R., Moundsville, West Va.—Vegetable and fruit slicer. N 21. 674

538 Ross, John, Williamsburg, N. Y.—Grain-mills, paint and drug mills, etc. R 23. 674

539 Hotsenpiller & Co., Springfield, Ohio.—Hominy-mill. M 21. 674

540 Corbett, A., Hicksville, N. Y.—Poultry incubator. C 24. 674

540*a* Bergner, George, & Co., Washington, Ill.—Apple and peach parer, apple corer and slicer. R 28. 674

540*b* Smith, John M., & Sons, Philadelphia, Pa.—Cedar water-tank, Scotch masbing-machine, valve for brewers and malt-houses. M 12. 674

541 Vanderbilt, Henry S., Washington, D. C.—Lifting-jack. I 17. 674

541*a* Stoddart, J. C., Lockport, N. Y.—Steam calliope. (*East end of Main Transept.*) 674

542 Dederick, P. K., & Co., Albany, N. Y.—Hay and cotton presses, bale-tie machines, coal-tubs, dumping-car, brick and tile machine, etc. Q 10. 674

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Machines, Implements, and Processes of Manufacture.

544 Furst & Bradley Manufacturing Co., Chicago, Ill.—Plows, harrows, hay-rakes, etc. Breaking and old-ground plows, sulky or riding plows, gang-plows, corn-cultivators, sulky hay-rakes, etc. O 25. 674

545 Garst, David W., Washington, D. C.—Dried-beef chopper. S 23. 674

546 Munson Brothers, Utica, N. Y.—Wheat-flouring and corn-grinding portable mill, millstone eye, spindles, and oil-tight bush. R 24. 674

547 Conrad, E. C., Philadelphia, Pa.—Coffee-machine. D 25. 674

548 Sandusky Machine & Agricultural Works, Sandusky, Ohio.—Cylinder corn-sheller. M 16. 674

549 Lombard, Daniel, Boston, Mass.—Rice and coffee cleaning mortars, coffee-shelling machine. P 23. 674

550 Dickey, A. P., Racine, Wis.—Fanning-mills, for cleaning all kinds of grain, perfectly separating all foul substances; also grades the grain, putting best out at the side of the fan, and balance in front; also cleans and separates all kinds of seeds. Will pay for itself in one season's use. Send for catalogue and prices. T 27. 674

550*a* Munsel & Dexter, Elizabeth, N. J.—Lifting-jack. I 28. 674

551 Toll, Chas. H., Schenectady, N.Y.—Brooms. H 15. 674

552 Mansfield Machine Works, Mansfield, Ohio.—Mounted portable steam-engine. P 8. 674

553 Mitchell, J. E., Philadelphia, Pa.—Farmers' grindstones, mounted, mower, knife-grinders, scythe and whetstones; grindstone of 1776. N 20. 674

554 Hazard, Thomas, Wilmington, Ohio.—Straw-cutters. O 22. 674

556 Bruner, M., jr., Fremont, Ohio.—Hay-press. R 11 *and* 12. 674

557 Bailey Wringing-Machine Co., 99 Chambers st., New York, N. Y., American meat and vegetable choppers, for use of families, hotels, and butchers. More than 60,000 now in use. S 24. 674

558 Bushfield, W. H., Jersey City, N. J.—Dried-beef cutter. S 23. 674

559 Whitemore, D. H., Worcester, Mass.—Apple parer and slicer, meat-cutter, etc. N 22. 674

560 Foster, Calvin A., Fitchburg, Mass.—Meat-chopper and apple-parer. S 23. 674

560*a* Nevins, Wm., Titusville, Pa.—Combined machine for marking, ridging, planting, etc.; potato-digger. L 22. 674

561 Pierpont, C., & Co., New Haven, Conn.—Fodder-cutter. P 22. 674

562 Fitzhugh, J. R., Philadelphia, Pa.—Hay-elevator. P 19. 674

563 Hall's Self-feeding Cotton-Gin Co., New London, Conn.—Self-feeding cotton-gin. T 12. 674

564 Bates, Hyde, & Co., Bridgewater, Mass.—Power and hand cotton-gins. R 10. 674

566 Bradford, W. A., & Co., Chicago, Ill.—Cider-mill. T 13. 674

566*a* Wakeman, R., Port Deposit, Md.—Power-press. Q 11. 674

566*b* Emery, Horace L., Albany, N. Y.—Cotton-gin, lint-cleaner. Q 11. 674

566*c* Wilson Brothers & Co., Harrisburg, Pa.—Fodder-cutter. O 22. 674

566*d* Lee, George W., Homeworth, Ohio.—Fodder-cutter. T 25 *and* A 25.

566*e* Ross, John, Williamsburgh, N.Y.—Flour-mills, farm-mills, paint-mills, and mixers. R 23. 674

566*f* Esmond & Dunham, New York, N. Y.—Press and compress combined. S 24. 674

566*g* Cousland & Cousland, Philadelphia, Pa.—Adjustable picks, with movable bits. M 26. 674

566*h* Cooper, I. G., Scranton, Pa.—Hay and straw cutter. J 7. 674

566*i* Scharf, Louis, Philadelphia, Pa.—Combined water cooler and filter. F 19. 674

566*j* Baugh & Sons, Philadelphia, Pa.—Mills for crushing and grinding bones, minerals, woods, etc. K 25. 674

567 Dernell, H. F., & Co., Athens, N. Y.—Tools for cutting and storing ice. N 24. 674

567*a* Belcher & Taylor Agricultural Tool Co., Chicopee Falls, Mass.—Hay-cutters, vegetable-cutters, corn-sheller, and bag-holder. T 21. 674

567*b* Skinner, E. W., Sioux City, Iowa.—Adjustable sugar-cane crusher. T 12. 674

567*c* Deas, R. M. H., New York, N. Y.—Drinking-fountain. K 14. 674

567*d* Purdy, Hiram, Burlington, Iowa.—Cyclone heater, car-door, odorating apparatus. I 28. 674

567*e* Barrows, Savery, & Co., Philadelphia, Pa.—Steamer for cooking food. L 8. 674

567*f* Aldrich, Isaiah, Philadelphia, Pa.—Can soldering and capping machine. M 24. 674

567*g* Morse, Dudley, Norwich, N. Y.—Hay-fork and wagon-jack. H 23. 674

567*h* Smith, J. G., Fauburg, Ill.—Boiler for cooking. C 24. 674

568 Chesley, Plumer, Chelsea, Mass.—Meat-chopper. R 24. 674

569 Hanck, S., & Bro., Lebanon, Pa.—Vegetable-cutters. M 22. 674

570 Longaker, Thomas F., Philadelphia, Pa.—Stable-hook. C 20. 674

571 Schenck, Marcus P., Fulton, N. Y.—Fruit-press, apple and horseradish grater. P 11. 674

572 Peabody, George H., Brooklyn, N. Y.—Rice huller and polisher. L 16. 674

573 Boomer & Boschert Press Co., Syracuse, N. Y. S *and* T 12.
a Power cider-press (double platform), 200 tons capacity, sixty barrels in ten hours. Hand cider-press, power 125 tons. Wine-press, power 60 tons, Nos. 1, 2, and 3. Lard or tanking presses, power 80–120 and 200 tons. 673
b Apple-grater. 674
"For presses" for paper, cloth, etc., see Machinery Hall, E 39.

For locations of objects, indicated by letter and figure, see Key to Notation, p. 6; ground plan, p. 10.

Machines, Implements, and Processes of Manufacture.

574 Ross, E. W., & Co., Fulton, N. Y. P 22.
a Feed-cutter, straw-cutter for paper-mills. 674
b Crank paddle-churn. 673

575 Treat, J. A., Cleveland, Ohio.—L 12.
a Washing boiler, and automatic blind governor. 674
b Factory churn. 675

576 Speakman, Miles, & Co., West Chester, Pa. M 13.
a Corn-sheller, insect-destroyer, pruning-shears, etc. 674
b Butter-worker and butter-printing table. 675

577 Pilling, Geo. P., Philadelphia, Pa. —Milking-tubes. M 12. 675
Silver patent tubes for milking cows without using the hands. No stripping required, saving time and labor. Set of four sent postpaid on receipt of two dollars. Also, capon and veterinary instruments.

578 Packer, Charles W., Philadelphia, Pa.—Ice-cream freezers. O 12. 675

578*a* Simmons & Sons, Bloomington, Ill.—Ice-cream freezer. M 10. 675

578*b* Buckhardt, W. H., & Co., Philadelphia, Pa.—Tank and casks. H 24. 675

578*c* Olmstel, John W., Northport, N. Y.—Ice-cream freezer. M 10. 675

578*d* Weinhagen, H., New York, N. Y. —Cream gauges, grape-sugar test, wine-testing apparatus, and dairy fixtures. M 12. 675

578*e* Conver, W. H., Agnew Mills, Pa. —Churns. M 11. 675

579 Koehler, J. G., Philadelphia, Pa.— Cedar-ware, churns, measures, etc. M 10. 675

580 Clement & Dunbar, Philadelphia, Pa.—Cedar-ware, churns, and ice-cream freezers. O 11. 675

581 Blatchley, C. G., Philadelphia, Pa. —Horizontal ice-cream freezer, cucumber-wood pumps. O 11. 675

582 Carter, Henry C., New York, N. Y. —Butter-pail. M 10. 675

583 Markham, H. C. & D. C., Lyons Falls, N. Y.—Curd-sink. M 12. 675

584 Hollister, King, & Young, Factory Point, Vt.—Shipping boxes. M 12. 675

585 Moos, Joseph, Philadelphia, Pa.— Ice-cream refrigerator and ice-cream shipping-apparatus. O 12. 675

585*a* Fisher, J. H., Chicago, Ill.—Refrigerator. K 11. 675

586 Chick, W. H., & Co., St. Louis, Mo. —Churns, egg-beater, and ice-cream freezers. M 11. 675

587 Keen & Hagerty, Baltimore, Md.— Ice-cream freezers, cake-mixer, and egg-beater. O 10. 675

588 Emmert, William P., Freeport, Ill.—Butter-churns, tread-power, etc. M 12. 675

589 Elliget, James, Cleveland, Ohio.— Bottles, kegs, mugs, and pitchers. M 10. 675

590 Reid, A. H., Philadelphia, Pa.— Butter-worker. L 11. 675

591 Rogers, Francis P., Philadelphia, Pa.—Milk-cans, pans, buckets, strainers, butter-kettles, etc. L 11. 675

591*a* Anchor Manufacturing Co., Philadelphia, Pa.—Barrels and kegs. I 26. 675

591*b* Judge, Owen, Scranton, Pa.—Barrel-heads. J 28. 675

591*c* Dibble, Andrew J., Franklin, N.Y. —Churns, milk-pans. L 8. 675

591*d* Downs, W. H., East Newport, Maine.—Churns. L 11. 675

591*e* Hollister, King, & Young, Factory Point, N.Y.—Butter package. M 12. 675

591*f* White Mountain Freezer Co., Laconia, N. H.—Ice-cream freezer, ice-crusher. M 4. 675

592 Ellsworth, John T., Barre, Mass.— Oscillating churn. M 11. 675

592*a* Finnegan, A. J., Minneapolis, Minn.—Butter-package. M 10. 675

592*b* Burkhardt, Geo. J., & Co., Philadelphia, Pa —Cedar reservoir and dye-tub. M 17. 675

592*c* Le Valley, Darius A., Pawtucket, R. I.—Revolving milking-stool. K 17. 675

592*d* Bettle, Harbert, Philadelphia, Pa. —Ice cream can holder. L 12. 675

592*e* Seed, Frederick, Cincinnati, Ohio. —Churn. L 11. 675

593 Guernsey, Daniel, Watertown, N. Y.—Gilt-edge milk-pans and cooler. L 10. 675

594 Shaw, Philander, Scituate, Mass. —Butter-working machine, butter-mould, and stamp. M 12. 675

595 Cornish & Curtis, Fort Atkinson, Wis.—Rectangular churn and butter-worker; without floats or agitators of any kind; durable, and easy to work. Endorsed by prominent dairymen everywhere. M 11. 675

596 Murdock, Albert L., Boston, Mass. —Dairies of the different breeds of cattle. H 17. 675

597 Justice, L. B., Philadelphia, Pa.— Machine for making ice cream, water ices, frozen fruits, etc. O 10. 675

598 Porter Blanchard's Sons, Concord, N. H.—Churns. N 12. 675
The celebrated "Blanchard Churn" has been proved and improved and approved for over a quarter of a century, and over a hundred thousand of them are now in successful operation. It is simple, durable, effective, and cheap. Send to the manufacturers for churns, agencies, or descriptive circulars. "Get the best."

599 Thompson, S. W., jr., Detroit, Mich.—Barrel-shooks. C 20. 675

600 Hardin, L. S., Louisville, Ky.— New method of setting milk for making butter. M. 12. 675

601 Bartlerond, John W., Churchville, Pa.—Churn, butter-worker, and cream-regulator. M 11. 675

602 Smith, Hamilton E., New York, N. Y.—Iron enameled churns. K 11. 675

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Agricultural Engineering and Administration.

603 Ashley, H. A., Springfield, Ohio.—Ditching-machine. D 19. 680

603*a* Bean, H. & B. F., Pawling, Pa.—Picket fence. D 24. 680

603*b* Ripley, Theodore, Hallowell, Maine.—Shovel scraper. C 20. 680

604 Pressey, G. W., Hammonton, N. J.—Stump-puller and rock-lifter. C 17. 680

605 Murdock, John, & Son, Poseyville, Ind.—Wheat ricker. M 15. 680

606 Bowen, C. M., Maine Avenue, N. J.—Stump, grub, and rock extractor. D 17. 680

607 Randolph, Theodore F., Morristown, N. J. Ditcher and excavator. C 18. 680

608 Fay, C. J., Camden, N. J.—Stump and rock lifter. R 11. 680

609 Hall, S. W., Elmira, N. Y.—Fencing-machine, machine-made worm-fence, bracket, and wire fences. O 23. 680

610 Patterson, William, Salem, N. J.—Wrought-iron road-scraper. D 18. 680

611 Cotton, A. C., Vineland, N. J.—Stone and stump extractor. D 17. 680

612 Drake & Parmley, Painesville, Ohio.—Fence-post base. D 18. 680

613 Rhodes & Waters, Elyria, Ohio.—Post-hole digger. C 19. 680

614 Starbuck, Nathan, Wilmington, Ohio.—Mounted ditcher. C 17. 680

615 Thompson, Woodard, Gardiner, Me.—Self-loading and unloading hod-road scraper, model of scraper, and model of railway joint. C 19. 680

616 Leatherbarrows, John, Philadelphia, Pa.—Wrought-iron and wire fencings. D 17. 680

617 Pioneer Iron Works, Brooklyn, N. Y.—Portable iron railroad and steam road-roller. D 22. 680

617*a* Landis, Israel L., Lancaster, Pa.—Fence and gate models, step-ladder. B 22. 680

617*b* Frey, Abram, Philadelphia, Pa.—Portable fence. B 23. 680

617*c* Speakman, Thomas, Philadelphia, Pa.—Models of fences. B 23. 680

617*d* Treat, J. A., Cleveland, Ohio.—Carriage gate. (*Outside of Agricultural Building.*) 680

618 Chicago Scraper and Ditcher Co., Chicago, Ill.—Scraper and ditcher for roadmaking, repairing, and excavating. C 20. 680

619 Potts, William W., Swedeland, Pa.—Iron-post portable fence. Simple, durable, economical, and storm-proof. Saves time and money. D 23. 680

620 Rumford Chemical Works, Providence, R. I.—Fertilizers, bone charcoal, etc. K 21. 681

621 Josiah J. Allen's Sons, Philadelphia, Pa.—Guano, bone, and other fertilizers. D 28 681

621*a* Fisher, W. A., Bryn Mawr, Pa.—Fertilizers. D 26. 681

622 Bradley Fertilizer Co., Boston, Mass.—Fertilizers. H 28. 681

622*a* Jarvis & Hooper, Detroit, Mich.—Fertilizers. B 26. 681

623 Ward's Fertilizer Co., Boston, Mass.—Odorless fertilizers. D 28. 681

624 United States Fertilizing & Chemical Co., 104 Chestnut street, Philadelphia, Pa.—Phosphatic salts, bone, and fertilizers. Sole owners of Pratt's patent "acid grinding" process, by which the greatest percentage of available bone phosphate of lime is obtained. The 'national soluble bone" manufactured under this process is guaranteed to contain not less than from 28 to 33 per cent. of available bone phosphate of lime. Also manufacturers of agricultural chemicals generally. C 28. 681

625 Baugh & Sons, Philadelphia, Pa.—Raw bone superphosphate, ground raw bones; nitrogen. C 28. 681

626 Matheys, Charles F., Philadelphia, Pa.—Nitro-phosphate and ground bone. E 26. 681

627 Ames, Manning, & Ames, Hagerstown, Md.—Buffalo-bone meal for agricultural purposes. C 26. 681

628 Crocker, L. L., Buffalo, N. Y.—Fertilizers for grain, tobacco, cotton, etc., plant-food for plants and flowers. C 26. 681

629 Peck Brothers, Northfield, Conn.—Bone-dust. D 28. 681

630 Franklin Glue Works, Pittsburg, Pa.—Bone-dust, etc. K 20. 681

631 White, Geo. E., 159 Front Street, New York, N. Y.—Superphosphates, acid bone-black, raw materials for fertilizers, and agricultural chemicals. This house furnished all the fertilizers purchased by the Centennial Commission for its farms where the mowers and reapers are tested. D 28. 681

632 Swift & White, New York, N. Y.—Superphosphate of lime, ground bone, dried ground meat, and refined poudrette. C 25. 681

633 Pacific Guano Co., Boston, Mass.—Commercial fertilizers. A and B 28. 681

633*a* Mapes, Charles V., New York, N. Y.—Guano, bone, phosphate, etc. E 28. 681

634 Lister Brothers, Newark, N. J.—Superphosphate of lime, guano, ground bone, bone charcoal, sulphate of ammonia, agricultural salts, and other fertilizers. C 25. 681

635 Tygert, J. E., & Co., Philadelphia, Pa.—Bone phosphate and ground bone. C 25. 681

636 Atkinson, Empson, Woodstown, N. J.—Machine for cutting and setting up corn, road-scraper. S 28. 681

637 Harrisburg Fertilizer Co., Harrisburg, Pa.—Flour of bone, ground bone, superphosphate, animal compost, and lubricators. B 25. 681

638 Walton, Whann, & Co., Wilmington, Del.—Artificial fertilizers, bone-meal, and ground bone. C 25. 681

639 Kyser, James, & Son, Cleveland Ohio.—Whiffletree, check, and neck-yoke fastenings. M 10. 682

640 Remington, E., & Sons, Ilion, N. Y. —Carriage gearing. P 20. 682

640*a* Drown, W. A., Philadelphia, Pa. Umbrellas for wagons, carriages, and mowers. R 17. 682

640*b* Tibbles, George N., Jersey City Heights, N. J.—Power or speed traction engines. C 17. 682

640*c* Bradbury, Henry, Philadelphia, Pa.—Packing boxes. I 26. 682

641 Higganum Manufacturing Co., Higganum, Conn.—Trucks. L 25. 682

642 Allen, R. H., & Co., New York, N. Y. —Farm cart, water barrel, garden barrows, etc. Q *and* R 25. 682

642*a* Tubular Barrow & Truck Co., Jersey City, N. J.—Barrow and trucks, coaling tubs. R 26–28. 682

642*b* Fitch, Homer W., & Co., Lithgow, N. Y.—Hay-conveyer. M 25. 682

643 Mount, Joseph K., & Co., Hightstown, N. J.—Model hay-conveyer. C 24. 682

644 Beecher, C. T., Waterbury, Conn. —Whiffletree gear. N 22. 682

645 Cohu, A. B., New York, N. Y.— Wagon-jack. P 28. 682

646 State of Massachusetts, Boston, Mass.—Maps and plans of farm buildings. E *and* F 23. 683

646*a* Jewett, Solomon W., Rutland, Vt. —Architectural models. D 24. 683

647 Osborne Manufacturing Co., New York, N. Y.—Bird and animal cages. D '25. 683

648 Bost, Caleb E., Davidson College, N. C.—Beehive. J 28. 683

648*a* Goldsmith, Francis J., Painesville, Ohio.—Invertible troughs. B 22. 683

648*b* Losee, Alfred, New York, N. Y.— Folding coop. C 19. 683

648*c* Isham, Charles R., Peoria, N. Y.— Glass honey-boxes. A 27. 683

649 Gay & Bryant, Dresden, Ohio.— Post-hole digger. C 19. 683

650 Shields & Bro., Philadelphia, Pa.— Tanned hog's head, hog-rings and holders. B 24. 683

651 Collings, E. Z., Waterford, N. J.— Cranberry-plants growing, representing cranberry-bog. C 20. 683

652 Boyd, G., & Co., Philadelphia, Pa.— Fruit and grain-dryer. C 22. 683

653 Lockwood, James L., & Co., Stamford, Conn.—Portable fruit-drier. C 24. 683

654 Leonard, Henry, Basil, Ohio.— Revolving buckeye-ball on pedestal and college building. C 24. 683

655 Murphy, R. R., Fulton, Ill.—Honey extractor, for removing honey from the comb. C 24. 683

656 Gunther, G., New York, N. Y.— Brass, silver-plated, and japanned bird-cages. C 25. 683

656*a* Halderman, Frank, Mahanoy City, Pa.—Bird cage. K 7. 683

657 Murphy & Broom, Philadelphia, Pa.—Bird-cages, wire garden-furniture, rustic work, etc. C 26. 683

658 Wimpfheimer, David, Philadelphia, Pa.—Automatic vinegar apparatus. D 23. 683

659 Harris, Milo, Jamestown, N. Y.— Domestic fruit-dryer, model of lumber-kiln and of coal-oil still. D 23. 683

660 Ryder, B. L., Chambersburg, Pa.— American drier or pneumatic evaporator. D 24. 683

661 Tiffany, O. F., San Francisco, Cal. —Fruit-dryer. C 21. 683

661*a* Jones Fruit Evaporating Co., Chicago, Ill.—Pneumatic evaporator. C 23. 683

661*b* Ellsbury & Hayward, Winona, Minn.—Minnesota fruit and illustrations. C 24. 683

661*c* Cowder & Jones, Norristown, Pa. —Wind-mill with water-wheel. (*Outside of building.*) 683

661*d* Chapman, Frank W., Morrison, Ill.—Honey-extractor. A 27. 683

661*e* Millett, D. Caldwell, Holmesburg, Pa.—Hive and bees. C 25. 683

661*f* Reynolds, A. J., & Co., Washington, D. C.—Fruit-evaporators. C 22. 683

661*g* Chapman, John Winslow, Hyannis, Mass. — Barrel-heading, etc. A 22. 683

661*k* Bradford, H., Philadelphia, Pa.— Cotton-bale ties. H 17. 683

661*i* Bouscaven, G., Cincinnati, Ohio.— Model of apparatus to extract saccharine juices of plants by diffusion. T 22. 683

661*j* Deitz, George A., Chico Cal.— California fruit-dryer. C 18. 683

661*k* Ellis, Charles R., New York, N. Y. —Glass and marble tank. A 20. 683

662 Lindermann, O., & Co., New York, N. Y.—Bird and animal cages. D 25. 683

663 Williams, John, South Haven, Mich.—Model of evaporator. D 24. 683

664 Goodrich, C. C. & F. W., Portland, Conn.—Tobacco-hook with wilting-frame and builders' horse. Harvest your tobacco without laying it on the ground. D 25. 683

665 Kappe, W. J. H., Quincy, Ill.— Transportation coop for live poultry. D 25. 683

666 Hendryx & Bartholomew, Ansonia, Conn.—Bird cages and trimmings. D 25. 683

667 Conrad, E. C., Philadelphia, Pa.— Bird cage. D 25. 683

668 O'Neill, Wm. C., & Co., Philadelphia, Pa.—Kegs and barrels made with single staves. F 28. 683

669 Elphee, Edmund, Montezuma, N. Y.—Grain-seed wreath-picture, representing the harvest of 1875. H 15. 683

669*a* Scantlin, Thos., & Sons, Evansville, Ind.—Sugar-evaporator, self-measuring oil-tank. C 23. 683

669*b* Kennard, Amos, Clearfield, Pa.— Cant-hook for rolling logs in saw-mill. M 14. 683

670 Foot, Scovill D., New York, N. Y. —Portable fruit-preserver. I 23. 683

671 Vermont Farm-Machine Co., Bellows Falls, Vt.—Sugar-evaporator, and fixtures for making sugar. K 15. 683

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Agricultural Engineering, Administration, Management.

672 Wood, Robert, & Co., 1136 Ridge avenue, Philadelphia, Pa.—Ornamental iron and bronze works. Fountains, vases, verandas, stairs, lampposts, improved stable-fittings and furniture, wire-work of every description, wrought and cast iron railings. Also "statuary bronzes"—colossal, heroic, or life-size—in the highest style of art. L 10. 683

673 Shaw, Philander, Scituate, Mass.—Beehive, with comb and hive of bees. M 12. 683

674 Dana, C. H., West Lebanon, N. H.—Automatic label-machine, labels, punches, and registers for marking live-stock. N 12. 683

This machine is simple in its construction. With it labels of any description can be made with great rapidity for attaching to the animal's ear.

Four thousand labels can be made per hour. They are made of iron-wire rolled flat and washed with tin, and stamped with numbers from one to one thousand, and with any name ordered. Mr. Dana is offering the label machine for foreign countries, and good-will of business.

674*a* Rose, W. L., Wadesboro', N. C.—Iron cotton-tie. D 24. 683

674*b* Worrall, E. Penn, West Chester, Pa.—Beehive, showing bees at work. B 19. 683

674*c* Jackson, James L., New York, N. Y.—Stable fixtures. T 10 *and* 11. 683

675 Deardorff, Isaac N., Canal Dover, Ohio.—Smoke-house stove. It saves fuel, increases volume of smoke, with easy regulation of production and distribution. Removes all danger from fire. N 21. 683

676 Betts, Albert C., Troy, N. Y.—Machine for making wire fencing, w.. samples. P 23. 683

677 U. S. Wind-Engine & Pump Co., Batavia, Ill.—Windmills for pumping water, etc. Q 23. 683

678 State of Michigan.—Soils. H *and* I 20 *to* 21. 690

678*a* State of New Jersey.—Soils, subsoils, greensand marls, calcareous marls, mineral phosphates, fish guano, cancerine, lime, superphosphates, etc. E 17–18. 690

678*b* Rider, A. J., Atsion, N. J.—Cranberry bog and basket with cranberries. F 26. 690

Tillage and General Management.

679 Hirner, C. G., Allentown, Pa.—Farmers' Union Cattle-Powder, an artificial food for fattening stock and to increase the quantity and quality of milk and butter. B 28. 692

679*a* Rynal, P. H., Jackson, Mich.—Horse and cattle food. R 27. 692

680 Phillips, J. B., Philadelphia, Pa.—Devices for training and educating horses. B 26. 692

680*a* May, David T., & Co., New York, N. Y.—Artificial leg of horse, with perforated stocking. B 21. 692

681 Miller, Frederick A., Philadelphia, Pa.—Condition powder for live-stock. B 26. 692

682 Hoepiner, Martin, 311 Columbia av., Philadelphia, Pa.—Prepared food for cage-birds. Natural food for mocking-birds, thrushes, blackbirds, nightingales, robins, starlings, skylarks, and all soft-billed birds. B 28. 692

683 Greenough, J. J., Syracuse, N. Y.—Machine for cleaning animals. B. 22. 692

684 Long, J. C., jr., Philadelphia, Pa.—Prepared food for mocking-birds; grains and seeds for birds, pigeons, and poultry; bird invigorator; drinking fountains, etc. B 26. 692

685 Kirk, Charles H., & Co., Philadelphia, Pa.—Prepared food for horses and cattle. B 26. 693

686 Ausable Horse Nail Co., New York, N. Y.—Horseshoe nails. B 24. 693

687 Caryl, A. H., & Son, Forge Village, Mass.—Horseshoe nails pointed and finished, also not pointed. These nails are made by hammers from hot rods, and of the best Norway iron. B 24. 693

688 Burden, H., & Sons, Troy, N. Y.—Working model of horseshoe machine, samples of horse-shoes, boiler rivets, and merchant iron. A 23. 693

689 Tallman, G. W., New York, N. Y.—Elastic hose stocking. B 23. 693

690 American Shearer Manufacturing Co., Nashua, N. H.—Shearing and clipping machines. B 22. 693

691 Putnam, S. S., & Co., Nepon.set, Mass.—"Government standard" forged and hammer-pointed horseshoe nails. These nails are made from the best Norway iron, are drawn out under hammers when nearly at a welding heat, whereby they are enabled to produce a nail that is tough and stiff, and perfectly reliable in all respects, ready for the blacksmith to drive. B 24. 693

692 Lhernault, Auguste, New York, N. Y.—Machine for clipping horses. B 21. 693

692*a* Russell, William, Cincinnati, Ohio.—Hand and machine made horse-shoes, etc. B 23. 693

692*b* Hull, Theodore, Newark, N. J.—Horseshoes. B 24. 693

692*c* Davis, H. S., Camden, N. J.—Horseshoes. B 24. 693

692*d* New Hampshire State Centennial Board.—Agricultural literature. E 20–21. 693

692*e* Campbell, C. A. J., Philadelphia, Pa.—American trotting-horse shoes. B 23. 693

692*f* Baker, Joseph P., Melrose, Mass.—Horseshoes, etc. B 24. 693

693 Smith, Aaron W., Manchester, N. H.—Jointed horseshoes. B 24. 693

694 Atkins, J. L., Nashville, Tenn.—Horseshoes and plates. B 24. 693

695 Rhode Island Horseshoe Co., Providence, R. I.—Machine-hammered horseshoes. B 23. 693

696 Ward, Henry A., Rochester, N. Y.—Stuffed Bactrian camel and Shetland pony. K 26 *and* 27. 693

697 Gadsden, John W., Philadelphia, Pa.—Veterinary anatomical specimens. A 28. 693

For locations of objects, indicated by letter and figure, see Key to Notation, p. 6; ground plan, p. 10.

Veterinary Appliances.

698 National Horse Nail Co., Vergennes, Vt.—Horseshoe nails. R 24. 693

699 Gornes, John M., St. Louis, Mo.—Horseshoes. B 24. 693

700 Carroll, William, Philadelphia, Pa.—Horseshoes. B 24. 693

701 Day, Austin G., Seymour, Conn.—H 27–28.
a Vulcanized bituminous concrete paving-blocks. 103
b Kerite manufactured articles; hard-rubber goods. 285

701*a* McElroy & Co., Philadelphia, Pa.—Clay pipes. H *and* I 25. 254

701*b* Ashbourne & Co., Philadelphia, Pa.
a Cocoanut-cream oil and soap. 201
b Ink from cocoanut shell. 202
c Cocoanut tooth-powder, cosmetic. 203

702 Tower, L. C., Chester, Pa.—Thermometers. A 16. 320

703 Collison, H. C., Dover, Del.—Syrup drip for measuring-vessels. S 25. 320

704 Wheelock, Jerome, Worcester, Mass.—High-pressure steam engine. *Engine house*, T 16. 552

705 Neafie & Levy, Philadelphia, Pa.—High-pressure engine. Engine rooms, T 13. 552

705*a* Canby, George, & Co., Philadelphia, Pa.—Pumps for supplying aquariums with water. A 24. 560

705*b* Knowlton, E. J., Ann Arbor, Mich.—Bathing apparatus. K 7. 594

706 Protective Fire Apparatus Co., New York, N. Y.—Apparatus for extinguishing fires. (*South side of Agricultural Hall.*) 594
Agricultural Hall is protected by this apparatus.

The Protective Fire Apparatus consists of four systems:

System 1. Injecting into burning buildings or compartments of vessels pure carbonic acid gas.

System 2. Impregnating water with carbonic acid gas as it flows through the main water-pipe or fire-plugs, thereby throwing through the hose upon the fire a continuous stream of carbonic acid gas.

System 3. Throwing by hose-attachment impregnated water from the apparatus itself.

System 4. Injecting beneath the surface of oil or fluids carbonic acid gas.

All for the purpose of extinguishing fire.

706*a* Murtfeldt, Miss, Kirkwood, Mo.—Botanical specimens of Missouri. I 22. 709

707 Janes & Kirtland, New York, N.Y.—Ornamental fountain. (*Intersection of nave and main transept.*) 722

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

GREAT BRITAIN.

(South of South Transept, east of Nave.)

Agricultural, Animal, and Vegetable Products.

Arboriculture and Forest Products.

1 Nicoll, Donald, London.—Starch and compounds rendering fabrics and timber uninflammable; carbon combined with caoutchouc, for the preservation of wood and iron. 600

Agricultural Products.

2 Delf, W., Colchester.—Wheat. 620

3 Field, W., Liverpool.—Oats. 620

Animal and Vegetable Products.

5 Chapman, Edwin, & Co., London.—Koumiss, a beverage prepared from cow's milk; koumiss extract, for converting milk into koumiss. 651

6 Evans & Stafford, Leicester.—Stilton cheese. 651

7 Hooker, J., London.—A large tin of milk which has been exposed to the air for five years; also desiccated milk, condensed milk, and other preparations made with milk. 651

9 Green, John, London.—Gelatine for cigar-boxes, printers, engravers, and artificial-flower makers. 652

14 Lovey, Edward, Ponsnooth, Cornwall.—Beehives, with samples of honey and wax. 654

15 Schneider, Edward Albert, London.—Liquid essence of beef. 656

16 Nicoll, Donald, London.—Tea and coffee combined with milk and sugar, contained in soluble capsules for distribution in single cups; aërated beverages in vessels to allow rapid distribution in single draughts; preserved food. 656

17 Geyelin & Co., London.—Concentrated animal and vegetable food. 656

18 Goodall, Backhouse, & Co., Leeds.
- *a* Yorkshire relish sauce. 656
- *b* Orange quinine wine. 660

19 Keen, Robinson, Bellville, & Co., London.—Preparations from mustard, barley, oats, etc. 656

20 Pratt, James, London.—Sauce. 656

21 Smith, T. & H., & Co., Edinburgh.
- *a* Essences of coffee and coffee with chicory. 656
- *b* Aërated waters. 660
- *c* Chemical products. 200
- *d* Flavoring extracts. 203

22 Jaap, J., Glasgow.—Curry powders. 656

23 Menier, Emile, London.—Chocolates and cocoas. 656

23*a* Yuille, Andrew, Glasgow.
- *a* Essences of coffee and chocolate, coffee and milk, condensed milk. 656
- *b* Vinegar. 660

23*b* Mellin, Gustav, London.—Non-farinaceous food for infants and invalids. 656

25 Mackay, John, Edinburgh.—Fluid flavoring quintessences and articles of diet for table use. 656

26 Ledger, H., & Co., London.—Pure extract of meat. 656

27 Ball, James, London.—Sauce. 656

28 Lea & Perrins, Worcester.—Sauce. 656

37 Crosse & Blackwell, London.—Pickles, sauces, vinegars, jams, jellies, marmalades; potted and preserved meats; preserved fruits, soups, and fish; oils for salads, etc.; preserved provisions, sausages, vegetables, etc. 656

38 Field, W., Liverpool.—Oatmeal. 657

38*a* Richards & Co., London.—Self-raising flour. 657

39 Hunter, John, & Son, Woodhall Mills, Juniper Green, near Edinburgh.—Oatmeal and pot barley. 657

40 Plunkett, John, & Co., Portland Works, Dublin.—Malt for brewing and distilling, and roasted malt for coloring and flavoring porter and ale. 657

41 McCann, John, Beamond Mills, Drogheda.—Oatmeal and groats. 657

42 Maw, Thomas, Leeds.—
- *a* Pickles and sauces. 656
- *b* Syrups. 659
- *c* Vinegar. 660
- *d* Lozenges, baking powder. 661

42*a* Campbell, Thomas, Allentown, Pa.—Malt and whisky. 660

42*b* Haig, J., & Co., Scotland.—Whisky. 660

43 Corry, William, & Co., Belfast, Ireland.
- *a* Aërated waters from Cromac Springs, Belfast. 660
- *b* Non-metallic valves, plungers, connections, taps, and cylinder-linings. 565

44 Burke, Edward & John, Dublin.—English ales, Dublin stout, Irish and Scotch whiskies. 660

44*a* Grant, Thomas, The Distillery, Maidstone.—Cherry brandy. 660

44*b* Cork Distillery Co., Cork.—Whisky. 660

45 Wright, Herbert, & Co., Diamond Brewery, Dover.—Pale ale and stout. 660

46 Ind, Coope, & Co., Burton-on-Trent, Staffordshire.—Ale. 660

46*a* Inman Brothers, Huddersfield, Yorkshire.—Aërated waters. 660

46*b* Bewley & Draper, Dublin.—Aerated waters. 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Machines, Implements, Engineering, and Administration.

47 Bindley & Co., Burton-on-Trent.—Ales. 660

47*a* Tennent, J. & R., Glasgow.—Bottled ales. 660

48 Mott & Co., Leicester.—Cowslip wine. 660

49 Muir, Jas., & Son, Calton Hill Brewery, Edinburgh.—Ales. 660

49*a* Cantrell & Cochrane, Dublin.—Ginger ale, aërated beverages, etc. 660

50 Johnson & Co., Canterbury.—Pale ale. 660

50*a* Murree Brewery Co., Punjab, East India.—Bottled ales. 660

51 Pendock Brothers, Bristol.—Cider and perry. 660

52 Richardson, Earp, & Slater.—Trent and Northgate Brewery, Newark-upon-Trent.—Ale. 660

53 Stevens, Thomas, Wrexham, North Wales.—Ornamental confectionery, birthday and christening cake, meringues, medallions, ornamental sugar-stand; rich cake. 661

53*a* Fry, Joseph Storrs, & Sons, Bristol.—Chocolate and cocoa, and specimens illustrative of the process of manufacture. 661

54 Gissing, Anthony S., & Sons, Eye, Suffolk.—Fancy biscuits, baking powder. 661

54*a* Allen, Frederick, & Sons, London.—Confectionery and medicated confectionery. 661

54*b* Smith, Thomas, & Co., London.—Wedding-cakes, ornaments, novelties for parties. 661

Textile Substances of Vegetable or Animal Origin.

56 The Mill Hill Wool and Rag Extracting Co. (limited), Mill Hill Works, Huddersfield.—Wools made from old rags, etc. 667

57 Bowes, John L., & Bro., Liverpool.—Raw materials used in the woollen and worsted trade. 667

58 Smith, David, & Co. (limited), Kensington Works, Halifax, Yorkshire.—Cleaned wools and wools extracted from waste products. 667

Machines, Implements, and Processes of Manufacture.

60 Wills, Arthur Winkler, Park Mills, Birmingham.—Hoes, axes, etc. 670

62 Fison, J. P., Teversham Works, Cambridge.—Agricultural machinery: vertical steam engine and boiler, chaff cutter, centrifugal pump, steam threshing-machine and chain harrow, models of portable steam engine, movable hut, centrifugal pump, and furrow plows. 670

63 Fussell, James, Sons, & Co., Mell's Iron Works, near Frome, Somersetshire.—Edge tools used in agriculture. 670

64 Wilkinson, William, & Sons, Spring Works, Sheffield.—Sheep and garden shears. 672

64*a* Greening, N., & Sons, Warrington.—Woven wire for rice, flour, and other mills. 673

64*b* Brown, J. B., & Co., London.—Galvanized wire netting, etc. 673

66 Lloyd, T., & Sons, London.—Flour mills, dressing machines, grinding mill, and coffee mills. 673

66*a* Cheavin, G., Boston, Lincolnshire.—Filters. 673

66*b* Barnard, Bishop, & Barnards, Norwich.—Galvanized wire netting. 673

66*c* Needham & Kite, London.—Filter press for clarifying liquids. 673

67 Crook, Graham, & Co., Halifax.—Boilers. 674

67*a* Kay & Hilton, Liverpool.—French burr millstones for wheat grinding. 674

68 Clark & Dunham, London.
a Mill stones and lubricators. 674
b Chrondometers for measuring and weighing grain. 322

68*a* Wellock, J., & Co., Bradford.—Waterproof material for cart and wagon covers. 682

69 Aveling & Porter, Rochester, Kent.—Agricultural locomotive engine, locomotive crane engine, steam road roller wagons for road locomotive engines. 682

70 Neighbour, G., & Sons, London.—Beehives and bee furniture. 683

71 Barnard, Bishop, & Barnards, Norwich.—Stable fittings. 683

72 Lovey, Edward, Cornwall.—Beehives. 683

---

73 Colthurst, Symons, & Co., Bridgewater.—Scouring bricks. 106

74 Star Plate Universal Polishing Powder Co., London.—Polishing powder. 106

75 Jaap, J., Glasgow.—Artificial yeast. 200

76 Higgin, T., & Co., Northwich.—Salt. 200

77 Harper, Twelvetras, & Co., London.—Soap powder. 201

78 Rawlins & Son, Prescot.—Ultramarine, smalts, etc. 202

79 Eastwood & Co., London.—Red terra cotta chimney shafts. 206

80 Phillips, J., & Co., Devonshire.—Terra cotta bricks and drain pipes. 206

81 Johnson & Co., Sussex.—Terra cotta. 206

82 Edwards, J., & Son, Burslem.—Ironstone white ware and fancy decorated goods 210

83 Edwards, J., Fenton.—Porcelain and ironstone china. 213

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

NEW ZEALAND.

(*East Aisle, Columns 1 to 5.*)

Agricultural Products, Textile Substances.

Agricultural Products.

1 Banks, E. H., Christchurch. — Oats and other cereals. 620

2 Wood, W. D., Christchurch.—Wheat. 620

3 Cunningham, P., & Co., Christchurch. —Wheat grown in Canterbury. 620

4 Ruddenklan, J. G., Addington, Canterbury.—Wheat. 620

5 Wilkins, Robert, Christchurch.—Perennial rye grass and cocksfoot seed. 624

Textile Substances of Vegetable or Animal Origin.

6 Peter, W. S., Anama, Ashburton, Canterbury.—Merino wool. 667

7 Bealey, Samuel, Canterbury.—Merino and Romney Marsh wool. 667

8 Rutherford, A. W., Amuri, Nelson. —Merino wool. 667

9 Anstey, G. A., Amuri, Nelson.—Merino wool. 667

10 Wason, J. Cathcart, South Rakaia, Canterbury.—Wools. 667

11 Hall, John, Horoiata, Canterbury.—Merino wool. 667

12 Rickman, F. M., Rangiora, Canterbury.—Romney Marsh wool. 667

13 Braithwaite, Arthur, Hutt, Wellington.—Romney Marsh wool. 667

NEW SOUTH WALES.

(*East Aisle, Columns 1 to 5.*)

Animal and Vegetable Products.

Animal and Vegetable Products.

1 Fallon, James T., Albury.—Wines. 660

2 Munro, A., Bebeah, Singleton.—Wines. 660

3 Carmichael, G. L. & J. B., Porphyry, Williams River.—Wines. 660

4 Brecht, Carl J. P., Rosemount, Denman.—Wines. 660

5 Powell, Edward, Richmond.—Wines. 660

6 Parnell, Montague, West Maitland, Hunter River.—Wines. 660

7 Wyndham, Wadham, Bukkulla, Inverell.—Wines. 660

8 Wyndham, George, Branxton, Hunter River.—Wines. 660

9 Doyle, J. F., Kaludah, Lochinvar. —Wines. 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

SOUTH AUSTRALIA.

(*East Aisle, Columns 1 to 5.*)

Machines, Implements, and Accessories of Manufacture.

Machines, Implements, and Accessories of Manufacture.

1 South Australian Commissioners, Adelaide.—Reaping Machine. 672

2 South Australian Commissioners, Adelaide.—Castings from South Australian iron ores. 111

3 Saunders, Robert, Manager of the Burra Burra Copper Mine, near Adelaide —Model of improved ore dresser. 505

4 Hancock, H. R., Moonta Copper Mines, near Adelaide.—Jigging machine. 505

CAPE OF GOOD HOPE.

(*South of South Transept, east of Nave.*)

Agricultural, Animal, and Vegetable Products, Textile Substances.

Agricultural Products.

1 Letterstedt & Co., Cape Town.—Wheat. 620

2 Clear, E., Cape Town.—Wheat. 620

Animal and Vegetable Products.

3 Dier & Dietz, Port Elizabeth.—Skins. 652

4 Barry, Arnold, & Co., Cape Town.—Wheat flour. 657

Textile Substances of Vegetable or Animal Origin.

5 Grewar, John W., Uitenhage.—Scoured wool. 667

6 Priest, W., Graff Reinet.—Fleece wool. 667

7 Rubidge, C., Graff Reinet.—Grease wool. 667

8 Stewart, A. C., & Co., Port Elizabeth.
a Grease and scoured wool. 667
b Angora hair. 669

9 Court, P. W., Port Elizabeth.—"Fidus," snow-white, and grease wool. 667

10 Barry & Nephews, Cape Town.—Washed and scoured wool. 667

11 Barry, Arnold, & Co., Cape Town.—Washed and grease wool. 667

12 Dier & Dietz, Port Elizabeth.—Wool. 667

13 Barry & Newpews, Mossel Bay.—Aloes. 272

JAMAICA.

(*South of South Transept, east of Nave.*)

Pomology.

Pomology.

1 Thompson, Robert, Jamaica.—A succession of fruit by each steamer during the season, including oranges, limes, lemons, citrons, shaddocks, forbidden fruit, ripley pines, sugar-loaf pines, black pines, bananas, mangoes, yams, cocoanuts, bread-fruit, etc. 610

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14

CANADA.

(*East Aisle, Columns 4 to 7.*)

Pomology, Agricultural Products, Land and Water Animals.

Arboriculture and Forest Products.

1 Munro, D. R., St. Johns, N. B., Canada.—Collection of forest woods, shrubs, etc., evergreen and deciduous, indigenous to the province of New Brunswick, used for shipbuilding, constructional, cabinet, and ornamental purposes, polished, etc. Sixty-seven specimens, accompanied with foliage and cone, interesting and instructive to the student of nature. Collected and prepared by D. R. Munro. 600

2 Alder, M., Victoria, B. C.—Charcoal. 600

3 Miller, J. & J., New Mills, Restigouche, N. B.—Extract of hemlock bark. 602

Pomology.

9 Fisher, M., Victoria, B. C.—Cranberries. 610

10 Loggie, A., & Co., New Westminster, B. C.—Cranberries. 610

Agricultural Products.

11 Rennie, Wm., Toronto, Ont.
a Grains. 620
b Seeds. 624

12 Murton, H., Guelph, Ont.—Oatmeal. 620

13 Wilson, Jas., Fergus, Ont.—Oatmeal. 620

14 Martin & Sons, Mount Forrest, Ont.—Oatmeal. 620

15 Aspden & Pritchard, London, Ont.—Oatmeal and oats. 620

16 Scott & Co., Highgate, Ont.—Oatmeal. 620

17 McKay, Thomas, & Co., Ottawa, Ont.—Oatmeal. 620

18 Corn Exchange Association, Toronto, Ont.—Grain and oatmeal. 620

19 Weatherston, N., & Co., Toronto, Ont.—Grain. 620

20 Charlesworth, M., & Son, Egmondville, Ont.—Bran and shorts. 620

21 Morton, Geo., & Son, Knipton, Ont.—Malt. 620

22 Osborne, Wm., Hamilton, Ont.—Malt. 620

23 Slater, R. P., Galt, Ont.—Malt. 620

24 Northwood, Howard, Chatham, Ont.—Malt. 620

25 Kerr, J. R., Victoria, B. C.—Grass, oats, and wheat. 620

26 Tolmie, Dr., Victoria, B. C.—Wheat in the stalk. 620

27 Boyd, J., Victoria, B. C.—Grass and cereals. 620

28 Council of Agriculture, Montreal, Quebec.—Cereals. 620

29 Brodie & Harvey, Montreal, Quebec.—Corn, oatmeal, and buckwheat. 620

30 Advisory Board of P. E. Island, Charlottetown.—Cereals. 620

31 Canadian Commission.
a Corn-wheat grown by Indians of British Columbia, and cereals from Manitoba. 620
b Indian or wild tea and wild hops from Manitoba. 623

32 Advisory Board of Nova Scotia.
a Cereals. 623
b Seeds. 624

33 Ontario Advisory Board, Toronto, Ont.—Cereals from counties of York, Perth, Simcoe, Bruel, Huron, Wellington, Peterboro', Cardwell, Durham, Essex, Hastings, Lincoln, Lanark, Middlesex Victoria, Russell, Peel, Frontenac, Lennox, Kent, Renfrew, Wentworth, Northumberland, Lambton, Carleton, Prince Edward, Addington, Waterloo, Halton, Brant, Grey, Oxford, and Ontario. 620

34 Muirhead & Gray, London, Ont.
a Barley and oatmeal. 620
b Peas. 621

35 Girdlestone, C. H., & Co., Windsor, Ont.—Tobacco and cigars. 623

36 Downie, W., Saainch, B. C.—Hops. 623

37 Moses, D. D., Saainch, B. C.—Hops. 623

38 Wain, N., Saainch, B. C.—Hops. 623

39 Cook, Isaac, Saainch, B. C.—Hops. 623

40 Mann, J. W., Simcoe, Ont.—Grass and turnip seed. 624

41 Fuller, S. S., Stratford, Ont.—Flax-seed. 624

Land Animals.

42 Carnell, J. H., St. John, N. B.
a Stuffed birds and ducks. 635
b Fur-bearing animals, etc. 637

43 Egan, Thomas J., Halifax, Nova Scotia.
a Six cases Canadian birds. 635
b One pair caribou.
c Two caribou heads.
d Two moose heads.
e One black bear. 637

44 Norvell, G. F., Hamilton, Ont.—Stuffed birds. 635

44*a* Foley, C., Lindsay, Ont.—Stuffed birds. 635

Water Animals, Fish-Culture, and Apparatus.

45 Loggie, A., & Co., New Westminster, B. C.—Salmon and trout. 641

46 Advisory Board of Nova Scotia.—Fishes. 641

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Animal and Vegetable Products, Textile Substances.

47 Crowe, A. H., Halifax, N. S.—Fishes. 641

47*a* McLeod, R.—Medusa head, star fish. 641

48 O'Leary, H., Richibucto, N. B.
a Salmon. 641
b Lobsters. 643

49 Mack, J. N., Halifax, N. S.—Smoked alewives. 642

50 Barber, J., Halifax, N. S.
a Canned mackerel. 642
b Canned lobsters. 643

51 Deas, J. S., Fraser River, B. C.—Canned salmon. 642

52 Noble, R. B., Richibucto, N. B.
a Mackerel, etc. 642
b Lobster. 643

53 Bain, J. D., Restigouche, N. B.
a Mackerel. 642
b Lobsters. 643

54 Holbrook & Cummington, New Westminster, B. C.—Canned salmon. 642

56 Christian, P., Halifax, N. S.—Canned lobsters. 643

57 Geological Survey, British Columbia.—Clam-shells used by Indians. 645

58 Erwin & Wise, British Columbia.—Isinglass. 646

59 Pitts, D. H., Halifax, N. S.—Reel for cod-fishing. 647

Animal and Vegetable Products.

60 Sharp, J. S., St. John, N. B.—Butter. 651

61 McLeod, R. E., & Co.—Cheeses. 651

62 Harvey, J., & Co., Hamilton, Ont.—Sheep-skins. 652

63 Crowe, A. H., Halifax, N. S.—Fish oils. 652

64 Netz, Christian.
a Lard. 652
b Pork and sausages. 656

65 Hatheway, F. A., St. John, N. B.—Moose and caribou heads. 652

66 Barnhill, B. B., St. John, N. B.—Moosehead. 652

67 Langley & Co., Victoria, B. C.—Oil. 652

68 Loggie, A., & Co., New Westminster, B. C.—Oolachan or pure oil. 652

69 Doel, W. H., Toronto, Ont.—Hen's nest. 653

70 Walsh, B., Halifax, N. S.—Pork. 656

71 Woodrell, W., Halifax, N. S.—Beef. 656

72 Belcher, J. W., Halifax, N. S.—Fruits in sugar. 656

73 Canadian Meat & Produce Co., Sherbrook, Quebec.—Canned meats. 656

74 Bain, J. D., Restigouche, N. B.—Beef and soups. 656

75 Graham, John, Sussex, N. B.—Spiced rolled bacon. 656

76 Canadian Commission.
a Dried Indian berries. 656
b Indian bread. 661

76*a* Guthrie & Hevenor, St. John, N. B.
a Fruit preserves. 656
b Raspberry vinegar. 660

77 Mewhort, Jos., Montreal, Quebec.—Self-raising flour. 657

78 Parkyn, Jas., Montreal, Quebec.—Flour. 657

79 McDougall, John, Bowmanville, Ont.—Flour. 657

80 Wadsworth, J. P., Meaford, Ont.—Flour. 657

81 King, Joseph G., Port Hope, Ont.—Three samples gilt-edged, patent process flour; three samples gilt-edged flour; three samples patent process flour; three samples flour. 657

82 Corn Exchange Association, Toronto, Ont.—Flour. 657

83 Weatherston, N., & Co., Toronto, Ont.—Flour and meal. 657

84 Charlesworth, M., & Son, Egmondville, Ont.—Flour. 657

85 Brodie & Harvie, Montreal, Quebec.—Self-raising flour. 657

86 Catelli Bros., Montreal, Quebec.—Vermicelli and macaroni. 658

87 Spinnelli, M. R., Montreal, Quebec.—Macaroni and vermicelli. 658

88 Troop, O. V., & Co., Mammoth Vinegar Works, St. John, New Brunswick.—Vinegar. The various grades of vinegars from this factory are readily sold for medicinal, pickling, and culinary purposes in the maritime provinces. 660

89 Febur, Michel Le, Montreal, Quebec.—Vinegar. 660

90 McLeod, McNaughton, & Co.—Ales and porter. 660

91 Blackwood, R., & Co., Montreal, Quebec.—Champagne, cider, etc. 660

92 Croskill, G. H., Halifax, N. S.—Cordials. 660

93 Costin, P., Halifax, N. S.—Champagne cider. 660

94 Knight, J., Halifax, N. S.—Liquors. 660

95 Smith, R., & Co., Brantford, Ont.—Bottled wines. 660

96 Canada Wine-growers Association, Toronto, Ont.—Wines and brandies. 660

97 Hastings, James, Toronto, Ont.—Wines. 660

98 Farrell, A. P., Cayuga, Ont.—Wine. 660

99 Wilson, Charles, Toronto, Ont.—Ginger ales. 660

100 Waterhouse, Joseph, Chatham, Ont.—Ales and porter. 660

101 Labatt, John, London, Ont.—Ales and porter. 660

102 Davis, Thos., & Bro., Toronto, Ont.—Ales and porter. 660

103 Birely & Co., Hamilton, Ont.—Vinegar. 660

104 Casci, V., Toronto, Ont.
a Wines. 660
b Plaster work. 400

Textile Substances of Vegetable or Animal Origin.

105 Nicol Bros., Belmont, Ont.—Flax. 666

106 Stahlschmidt & Co., Victoria, B. C.—Wool. 667

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Machines, Implements, Engineering and Administration.

107 Canadian Commission.—Indian wool from British Columbia. 667

108 Harvey, J., & Co., Hamilton, Ont.—Wool. 667

Machines, Implements, and Processes of Manufacture.

109 Richardson, Thos., Fergus, Ont.—Plow. 670

110 Acton Plow Co., Acton, Ont.—Plow. 670

111 Ross, George, Chatham, Ont.—Plows. 670

112 Monroe & Hogan, Seaforth, Ont.—Plow. 670

113 Duperon, Chas., Stratford, Ont.—Harrow. 670

114 Gillis, George, Gananoque, Ont.—Harrow, cultivator, and harrow and cultivator combined. 670

115 Bell, Charles, Parkhill, Ont.—Plow. 670

116 Wilson & Piper, Strathroy, Ont.—Combined sulky-harrow and hay-rake. 670

117 Wilkinson, George, Aurora, Ont.—Furrow plows, wrought frame and iron plows. 670

118 McDonald, A. S., Osgoode, Ont.—Cylinder cultivator. 670

119 McLaurin, Edmund, Trafalgar, Ont.—Plow. 670

120 Yeandle, Thomas, Stratford, Ont.—Plows. 670

121 Grant, Peter, Clinton, Ont.—Horse-power pitchfork. 670

122 Connell Bros., Woodstock, N. B.—Plow. 670

123 Dennis, Rowland, London, Ont.
a Plow. 670
b Potato-digger. 672

124 Dow, John, Gananoque, Ont.—Harrow and cultivator. 670

125 Harris, J., & Co., St. John, N. B.
a Plows. 670
b Mower, hay-rake, and potato-diggers. 672
c Thresher. 673
d Hay-cutter. 674

126 Watson, John, Ayr, Ont.
a Plows, roller. 670
b Horse-power grain-drill, turnip-drill. 671
c Grain-choppers, corn-sheller. 673
d Straw-cutters, root-cutter and pulper. 674

127 Vessot, J. & S., Joliette, Quebec.—Combined sower, harrow, and roller. 671

128 Mann, James W., Simcoe, Ont.—Turnip-drill. 671

129 Martin, Stephen, Osgoode, Ont.—Potato-digger. 672

130 Gray, A. G., St. John, N. B.—Mower. 672

131 McKenzie, Wm., Charlottetown, P. E. I.—Potato-digger. 672

132 Harris, A., Son, & Co., Brantford, Ont.—Mower, reaper, and rake. 672

133 Sawyer, L. D., & Co., Hamilton, Ont.—Mower, reaper. 672

134 Green Bros., Waterford, Ont.—Single reaper. 672

135 Bawtenheimer, P. M., Hamilton, Ont.—Potato-digger. 672

136 Head, Thos., Dundas, Ont.—Potato-digger. 672

137 Elliott, Thos., Peterboro', Ont.—Combined hay-rake and loader. 672

138 Forsyth & Co., Dundas, Ont.—Combined mower and reaper, single reaper. 672

139 Sharmon & Foster, Stratford, Ont.
a Mower and reaper combined. 672
b Thresher and separator. 673

140 Massey Mfg. Co., Newcastle, Ont.
a Mowing-machine and horse-rake. 672
b Grain-crusher. 673

141 Sells, Hugh, Vienna, Ont.—Cider-mills and presses. 673

142 Armstrong, E. F., Goderich, Ont.—Fanning-mill. 673

143 Haggert Bros., Brampton, Ont.—Horse-power separator. 673

144 Bricker, Jac., Berlin, Ont.—Threshing-separator. 673

145 Champion, A., Arkona, Ont.—Thresher and boiler. 673

146 Wilson, Thos., Richmond Hill, Ont.—Fanning-mill. 673

147 Gerolamy, Wm. A., Owen Sound, Ont.—Fanning-mill. 673

148 Abell, John, Woodbridge, Ont.
a Separator with carriers. 673
b Portable engine. 674

149 Anderson, Alex., London, Ont.—Straw-cutters and hay-knives. 674

150 Luke & Tolton Bros., Guelph, Ont.—Straw-cutter, etc. 674

151 Maxwell, David, Paris, Ont.—Power and hand straw-cutters, root-cutters, and pulpers. 674

151*a* James, Jos., Forest, Ont.—Bag-holder. 674

152 Ashley & Smith, Belleville, Ontario.—Manufacturers and sole assignees for the dominion of Canada of Fraser's patent improved cheese-hoops and gang-press. From five to fifteen cheeses may be pressed with one screw, each cheese receiving its full power; and one man can put ten cheeses to press after the hoops are filled as quickly as one man with the old press can put two cheeses to press. 675

153 Pitts, D. H., Halifax, N. S.—Horizontal churn. 675

Agricultural Engineering and Administration.

154 Strong, J. E., Newtonbrook, Ont.—Farm gate. 680

155 Marcon, W. H., Guelph, Ont.—Crushed bones. 681

156 Attwood, A. C., London, Ont.—Bee-hive, etc. 683

---

157 Purdy & Green, Portland, N. B.—Lime. 103

158 Canadian Commission.
a Tripoli earth from British Columbia. 104
b Head of a Wauptee Indian, Manitoba. 312

159 Borthwick, W., Ottawa, Ont.—Mineral waters. 107

160 Gray, Young, & Sparling, Seaforth, Ont.—Salt. 200

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12-14.

Agricultural Engineering and Administration.

161 International Salt Co., Goderich, Ont.—Salt. 200

162 Coleman & Gowinlock, Seaforth, Ont.—Salt. 200

163 Harrison & Evans, Goderich, Ont. —Salt. 200

164 Rigg, Ben., Stratford, Ont.—Soap. 201

165 McKelvey, Jas., St. Catharines.— Refrigerators. 224

166 Canadian Commission.
a Indian yarn from B. C. 235
b Indian blankets from B. C. 237

167 Anderson, Alex., London, Ont., Canada.—Bread-knives. 281

168 Stephen, Alex., & Son, Halifax, N. S.
a Brooms. 286
b Pails. 289

169 Brazil, Peter B., Barrie, Ont.
a Sleigh. 295
b Snow-plow. 572

170 Bruce, Robt., St. Catharines, Ont. —Tree-pruner. 726

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

FRANCE.

West of Nave, Columns 3 to 7.)

Metallurgy, Mining Engineering, Agricultural Products.

Minerals, Ores, Stone, Mining Products.

1 Laroche, A., Saulxures, Vosges.—Coal. 101

2 Asphalt Mining Co., Pyrimont-Seyssel, Ain.—Asphaltum. 101

3 Biron & Son, Paris.—Stone staircase and samples of colored Echaillon stone. 102

4 Cornu, Eugène, & Co., Paris.—Marble and Algerian onyx. 102

5 Marga, Eugene, Paris.—Samples of marble. 102

6 Parfonry & Lemaire, Paris.—Marble for furniture. 102

7 Pont-Ollion, Nicolet, Grenoble, Isere.—Cements. 103

8 Thorrand & Co., Grenoble.—Cement. 103

9 Soullier & Brunot, Teil, Ardèche.—Hydraulic lime. 103

10 Lime, Cement, & Plaster Manufacturing Co., Paris.—Limes, cements, plasters, and bricks. 103

11 Hydraulic Lime Stock Co., Montélimar, Drôme.—Lime, cement, and artificial paving blocks. 103

12 Holl, Samuel J., Dieppe, Seine-Inferieure.—Chalk. 103

13 Pinson, Paris.—Shell, ivory, mother of pearl, and artificial stone. 103

14 Pavin de la Farge, L. & E., Viviers, Ardèche.—Hydraulic lime and Portland cement. 103

15 Louquèty & Co., Boulogne-sur-Mer.—Cements. 103

16 Lauzun & Co., Bourg St. Andeol, Ardèche.—Artificial stone pavement, mosaics, granite, and artificial marble. 103

17 Mailfert & Mathelin, Chatillon-sur-Seine, Côte d'Or.—Moulding sand for foundries. 104

18 Deplanque, jr., Maisons, Alfort, Seine.—Emery in grains and powder. 106

19 Roger, Son, & Co., La Ferté-sous-Jouarre, Seine and Marne.—Millstones. 106

20 Fauqueux, A., La Ferté-sous-Jouarre, Seine and Marne.—Millstones. 106

21 Lithographic Stone Quarry Co., Paris.—Lithographic stone. 106

22 Clément, Clément, & Co., Paris.—Diamonds. 106

23 Durrschmidt, Lyons.—Emery in grains and powdered. 106

24 Bertrand, Jules, & Co., La Ferté-sous-Jouarre, Seine and Marne.—Millstones. 106

25 Bailly & Co., La Ferté-sous-Jouarre, Seine and Marne.—Millstones. 106

26 Weyl & Co., Paris.—Mineral waters from Aulus Springs. 107

Metallurgical Products.

27 Desmoutis, Quennessen, & Le Brun, Paris.—Platinum. 110

28 Chappée, A., Mans, Sarthe.—Iron pipes for water and gas. 111

29 Durenne, A., Paris.—Monumental fountain. 111

30 Martin, Pierre Emile, Sireuil, Charente.—Iron and steel. 111

31 Terrenoire, La Voulte, & Besseges, Lyons.—Iron and steel castings. 111

32 Marseilles Gas Co., Marseilles.—Spiegeleisen iron. 111

33 Marquise Foundry and Construction Works, Paris.—Iron pipes and chandeliers. 111

34 Secrétan, E., Paris.—Copper. 112

Mining Engineering.

36 Davey, Bickford, Watson, & Co., Rouen.—Safety fuse for mines. 120

37 Cosset, Dubrulle, Lille, Nord.—Safety lamps for miners. 120

38 Galibert, A., Paris.—Apparatus for breathing amid suffocating gases. 120

Arboriculture and Forest Products.

1 Delmas, Augustin, Toulouse.—Natural woods. 600

2 Gouturon, Mezin, Lot-and-Garonne.—Corks. 602

Pomology.

3 Charozé Bros., La Pyramide, Maine-and-Loire.—Fruits. 610

Agricultural Products.

4 Barthe, G., Paris.—Corn. 620

5 Dumoutier, Ch., Claville, Eure.—Agricultural products. 620

6 Thoreau, E., & Son, Chateau de la Chèze, Maine-and-Loire.—Barley. 620

7 Gutmann & Bloch, Paris.
a Barley. 620
b Hops and malt. 623

8 Fos, Miss J., Paris.—Medicated cigarettes. 623

Water Animals, Fish Culture, and Apparatus.

9 Colin, jr., Nantes.—Preserved fish. 641

For classes of exhibits indicated by numbers at end of entries, see Classification, pp. 12–14.

Animal and Vegetable Products.

10 Dupland, E., Ville-en-Bois, Loire-Inferieure.—Preserved sardines. 641

11 Jacquier & Saupiquet, Nantes.—Sardines in oil. 641

12 Maille & Tandeau, Paris.—Anchovies in oil. 641

13 Maré, C., Nantes.—Sardines. 641

14 Peltier & Paillard, Paris.—Sardines in oil. 641

15 Philippe & Co., Nantes.—Sardines in oil. 641

16 Terrien, Palais, Belle-Ile-en-Mer.—Sardines in oil. 641

17 Caillebotte & Dumagnou, Paris.—Sardines and pickled fish. 642

18 Dufour, A., & Co., Bordeaux.—Sardines. 642

19 Peltier & Paillard, Paris.—Sardines in oil. 642

20 Clement & Co., Paris.—Pearls. 645

Animal and Vegetable Products.

21 Coupiac, E., Roquefort Cheese-Factory, Roquefort, Aveyron.—Cheese. 651

22 Bageau, H., Paris.—Waterproof glue for leather. 652

23 Corbel, Eug., & Co., Nantes.—Leather. 652

24 Clavé, Bertrand, Coulommiers, Seine-and-Marne.—Leather. 652

25 Burel, J., Paris.—Peltry; kid-skins. 652

26 Bayvet Bros., Paris.—Morocco, sheep, calf, goat, and kid skins. 652

27 Basset & Co., Paris.—Kid for shoes. 652

28 Allain, Jules, Paris.—Kid for shoes. 652

29 Leven, M., senior & junior, Paris.—Calf-skin. 652

30 Fortier, Beaulieu, Paris.—Leather for furniture. 652

31 Tréfousse & Co., Chaumont, Haute-Marne.—Leather and dyes for leather. 652

32 Sueur, F., jr., Paris.—Leather. 652

33 Sorro Bros., Millan, Aveyron.—Calf-skin. 652

34 COLLECTIVE EXHIBIT OF THE LEATHER MANUFACTURERS OF SAINT-SAENS, SEINE INFERIEURE.—LEATHER. 652

Lefebvre, Felix.
Lecourtois, Arthur.
Lemonnier, Jules.
Sergent, Edmond.
Fache-Havé & Brother.
Frigot, Emile.
Lefebvre, Florentin.
Binet, Hippolyte.
Lenormand, Emile.
Morisset, Mrs.
Blot, Eugène.
Dumesnil, Paul.

35 Revillon Bros., Paris.—Peltries. 652

36 Daubin & Co., Paris.—Lard. 652

37 Duchesne Bros., Paris.—Morocco leather. 652

38 Peltier & Paillard, Paris.—Preserved meats. 656

39 Passion, Marc, Paris.—Preserved food. 656

40 Ségur & Obier, Périgueux, Dordogne.—Preserved food and paté de foie gras. 656

41 Vicat, J. H., Paris.—Mustard and pickles. 656

42 Terrien, senior, Palais, Belle-Ile-en-Mer.—Preserved food. 656

43 Maré, C., Nantes.—Green peas. 656

44 Lenoir, A., Paris.—Preserved game, poultry, etc.; patés. 656

45 Lecourt, Francois, Paris.—Preserved food. 656

46 Landrin, Augustin, Paris.—Preserved fruits and vegetables. 656

47 Lamarche & Veillon, Paris.—Preserved game and patés de foie gras. 656

48 Jacquier & Saupiquet, Nantes.—Preserved food. 656

49 Henry, Louis, Paris.—Patès de foie gras. 656

50 Groult, jr., Paris.—Conserves. 656

51 Tivollier, Auguste, Toulouse.—Paté de fois gras. 656

52 Fau, J., Bordeaux.—Prunes. 656

53 Escoffier, J., Nice.—Preserved fruits. 656

55 Dronne, L. F., Paris.—Patè de foie gras and preserved meats. 656

56 Dione, A. C., Paris.—Preserved food. 656

57 Lamarche & Veillon, Paris.—Paté de foie gras. 656

58 Deriviere, Julien, Paris.—Preserved food. 656

59 Dardelle & Co., Paris.—Preserved and dried vegetables. 656

60 Cormier & Véron, Paris.—Preserved food. 656

61 Colin, Joseph, Nantes.—Preserved food. 656

62 Chevallier, Appert, Paris.—Preserved food. 656

63 Caillebotte & Dumagnou, Paris.—Preserves 656

64 Boyer, P., & Co., Gignac, Hérault.—Truffles, capers, and olives. 656

65 Bornibus, Alexandre, Paris.—Mustard and pickles. 656

66 Bonfils Bros. & Co., Paris.—Preserved truffles. 656

67 Philippe & Co., Nantes.—Preserved food. 656

68 Fiton & Nouvialle, Bordeaux.
a Preserved food and fruits. 656
b Liquors. 660

68*a* Barthe, G., Paris.—Flour. 657

69 Ecorcheville & Legrand, Paris.
a Preserved fruits. 656
b Confectionery. 661

70 Dufour, A., & Co., Bordeaux.
a Prunes. 656
b Wines. 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

71 Dandicolle & Gaudin, Bordeaux.
a Preserved food. 656
b Wines and liquors. 660

72 Rousseau Bros., Paris.
a Preserved fruits. 656
b Liquors. 660

73 Maille & Tandeau, Paris.
a Mustard, pickles, and anchovies in oil. 656
b Vinegar. 660

74 Lesage & Paignard, Paris
a Preserves. 656
b Confectionery. 661

75 Louit Bros. & Co., Bordeaux.
a Preserves and mustard. 656
b Vinegar. 660
c Chocolates. 661

76 Mauprivez, A., Paris.—Tapioca. 658

77 Say, C., Paris.—Refined Sugar. 659

78 Déjardin, E., Paris.—Orange syrup. 659

79 Antheaume & Sons, Bourget-les-Paris, Seine.
a Glucose. 659
b Caramels. 661

80 Lefèvre & Rèmondet, Savigny-les-Beaune, Côte d'Or.—Sparkling wines. 660

81 Combier, J., Saumur, Maine-and-Loire.—Liquors. 660

82 Chenu, Laffitte, & Co., Bordeaux.—Wines. 660

83 Brizard & Roger, Bordeaux.—Liquors. 660

84 Passier, A., Sautenary, Cote d'Or.—Wines. 660

85 Otard, Dupuy, & Co., Cognac.—Brandies. 660

86 Pinet, Castillon, & Co., Cognac.—Brandies. 660

87 Perrier, J., & Co., Chalons-sur-Marne.—Champagne wines. 660

88 Montigny, de, & Co., Reims.—Champagne wines. 660

89 Montheuil, Franc, senior, Bordeaux.—Wines. 660

90 Montebello, Alfred de, & Co., Mareuil-sur-Ay, Marne.—Champagne wines. 660

91 Meukow, A. C., Cognac.—Brandies. 660

92 Merman, G., Bordeaux.—Wines. 660

93 Merman & Maitre, Bordeaux.—Wines. 660

94 Merman, Jules, & Co., Bordeaux.—Wines. 660

95 Mayer, Albert, Paris.—Liquors. 660

96 Mercier, Eug., Epernay.—Champagne wines. 660

97 Reignard, Paris.—Wines. 660

98 Promis, Justin, Bordeaux.—Wines and brandies. 660

99 Poligny Society of Agriculture, Science, & Art, Poligny, Jura.—Wines. 660

100 Poitevin, Ch., & Co., Bordeaux.—Wines. 660

101 Roullè, E., Bordeaux.—Wines. 660

102 Rojat, Jules, Nimes, Gard.—White wine vinegar. 660

103 Roederer, Théophile, & Co., Rheims—Champagne wines. 660

104 Rivière, Gardrat, & Co., Cognac.—Brandies. 660

105 Ricaumont, de, & Co., Libourne.—Wines. 660

106 Sabatier-Granier & Son, Manduel, Gard.—Wines and brandies. 660

107 Rouyer, Guillet, & Co., Saintes, Charente Inferieur.—Brandies. 660

108 Roussillon, J., & Co., Epernay, Marne.—Champagne wines. 660

109 Fontaine, Sarget de la, Bordeaux.—Wines. 660

110 Soudée, Paris.—Wines and brandies. 660

111 Tarbouriech, Louis, Cette, Hèrault.—Wines. 660

112 Marchand Bros., Paris.—Liquors. 660

113 Lossy & Co., Reims.—Champagne wines. 660

114 Lentilhac, de, Ballargeaux, St. Aulaye.—Wines. 660

115 Launay, de, & Co., Paris.—Champagne wines. 660

116 Larronde Brothers, Bordeaux.—Wines and brandies. 660

117 Lamart, A., Beaumetz-les-Loges, Pas-de-Calais.—Liquors. 660

118 Labrunie, P. A., Bordeaux.—Wines. 660

119 Javerzac, Viremondoy, & Co., Pont-de-Bordes, Lot-and-Garonne.—Wines and brandies. 660

120 Irroy, Ernest, & Co., Reims.—Champagne wines. 660

121 Guilhou, A., senior, Bordeaux.—Wines. 660

122 Guichard-Potheret & Son, Chalon-sur-Saone.—Wines. 660

123 Hivert, Pellevoisin, & Godet, La Rochelle.—Brandies. 660

124 Anthoine, Paris.—Wines. 660

124*a* Benoit, Charles, Reims.—Champagne wines. 660

125 Barral, J. L., Paris.—Wines. 660

126 Beaucourt, Fortunè, Margaux-Medoc, Gironde.—Wines. 660

127 Bellot, Jules, & Co., Cognac, Charente.—Brandy. 660

128 Beuverand, de, & Poligny, de, Chassagne, Côte d'Or.—Wines. 660

129 Bollinger, J., Ay-Champagne, Marne.—Champagne wine. 660

130 Bontou, jr., Bordeaux.—Wines. 660

131 Boulle, E., Bordeaux.—Wines. 660

132 Bourgoin-Jamain, jr., Beaune, Côte d'Or.—Wines. 660

133 Boutelleau & Co., Barbezieux near Cognac.—Brandies. 660

134 Brugalieres, Etienne, Floressas, Lot.—Wines. 660

135 Chaboseau & Payen, Levallois-Perret, Seine.—Liquor. 660

136 Chateau d'Issan, Roy, G., Margaux, Gironde.—Wines. 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Wines, Liquors, Vegetable Products, Agricultural Machines.

137 Chiapella, Jérome, Bordeaux.—Wines. 660

138 Claveille, Jules, Bordeaux.—Wines. 660

139 Clerc, J. B., Bordeaux.—Wines. 660

140 Collin, Ad., Chalons-sur-Marne.—Champagne wines. 660

141 Coudert, G., & Son, Limoges, Haute-Vienne.—Brandies. 660

142 Cunliffe, Dobson, & Co., Bordeaux.—Wines. 660

143 Curlier Bros. & Co., Paris.—Brandies. 660

144 Cusenier, E., & Co., Ornans, near Pontarlier.—Liquors. 660

145 Delizy & Doistau, jr., Pantin, Seine.—Liquors. 660

146 Thoreau, E., & Son, Chateau de la Chéze, near Saumur.—Champagne and red wines. 660

147 Tivet, B., Bordeaux.—Liquors and bitters. 660

148 Agricultural Union, Chateau-neuf, Charente.—Brandies. 660

149 Gourry & Co., Cognac.—Brandies. 660

150 Goerg, I., & Co., Chalons-sur-Marne.—Champagne wines. 660

151 Giojuzza & Giobertini, Paris.—Wines. 660

152 Gerin, E., Saint Jean d'Angéley, Charente.—Brandy. 660

153 Garros, J. L., Bordeaux.—Wines. 660

154 Garnier, P., Noyon, Oise.—Liquors. 660

155 Gadrad, D. G., & Co., Cognac.—Brandies. 660

156 Frois, Leo, & Co., Bordeaux.—Wines. 660

157 Fournier, Jules, Epernay, Marne.—Champagne wines. 660

158 Fournier, A., Chateau de Figeac, Gironde.—Wines. 660

159 Foucher, L., & Co., Cognac.—Brandies and liquors. 660

160 Dessandier, F., & Co., Jarnac-Cognac.—Brandies. 660

161 Detrie-Grandjean, Saint Loup-sur-Semouse, Haute Saone.—Kirschwasser. 660

162 Ditely, E., Paris.—Wines. 660

163 Dolin, Mrs., Chambéry, Haute Savoy.—Vermouth. 660

164 Druelle, Reims.—Champagne wines. 660

165 Dubois, E., & Co., Saint Jean d'Angéley, near Cognac.—Brandies. 660

166 Duquénel, Paris.—Wines and brandies. 660

167 Duret, Jules, & Co., Cognac.—Brandies. 660

168 Durozier, M., & Co., Cognac.—Liquors. 660

169 Laplante, Edard de, Guyotville, near Algeria.—Wines. 660

170 Faure, J., & Co., Cognac.—Brandies. 660

171 Faurie, J., sr., Narbonne.—Wines. 660

172 Ferret, Bros., & Co., Macon.—Wines. 660

173 Fil, Francois, Narbonne, Ande.—Wines. 660

174 Fisse, Thirion, & Co., Reims.—Champagne wines. 660

175 Seignouret Bros.—Bordeaux.
a Wines and brandies. 660
b Olive oil. 662

176 Mestrezat & Co., Bordeaux.
a Wines and brandies. 660
b Olive oil. 662

177 Reinhardt, L., & Co., Paris.—Bonbons. 661

178 Biardot, Alphonse, Paris.—Confectionery. 661

179 Chenu, P., Paris.—Confectionery. 661

180 Combet, Joseph, Paris.—Confectionery. 661

181 Ménier, Paris.—Chocolates. 661

182 Nègre, Joseph, Grasse, Alpes Maritimes.—Confectionery. 661

183 Lombart, Paris.—Chocolates. 661

184 Marge, jr., Lyons.—Patés. 661

185 Mottet, J., & Co., Marseilles.—Olive oil. 662

185*a* Chudaca, Léon, Alger.—Oil. 662

186 Plagniol, James de, Marseilles.—Olive oil. 662

Textile Substances of Vegetable or Animal Origin.

187 Chabert, J., & Co., Chomérac, Ardèche.—Raw silk. 668

188 Boudon, Louis, St. Jean-du-Gard, Gard.—Raw silk. 668

189 Arlès, Dufour, Lyons.—Raw silk. 668

190 Thomas, F., Pont des Charettes, Gard.—Cocoons and raw silk. 668

191 Pellet, A. P., St. Jean-du-Gard, Gard.—Raw silk. 668

Machines, Implements, and Processes of Manufacture.

192 Rabache, A., Clunay-sur-Odon, Calvados.—Double plow. 670

193 Couture, Paris.—Stripping machines for textiles. 673

194 Druelle, Reims.—Corking apparatus for champagne wines. 673

195 Deny, Louis, Paris.—Cylinder press for sugar. 673

196 Maurice & Guenin, Epernay.—Corking machines. 673

197 Mabille Bros., Amboise, Indre and Loire.—Wine and oil presses. 673

198 Logette, Ay, Marne.—Clasps for bottles, and machines for using them. 673

199 Gervais, E., Bordeaux.—Corking machines. 673

200 Fréal, Epernay, Marne.—Machines for filling bottles. 673

200*a* Dubois, Emile, St. Jean d'Angéley. Bottling machine. 673

201 Fisse, Thirion, & Co., Reims.—Iron clasps and bottling apparatus. 673

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Agricultural Machines, Engineering.

202 **Mercier, Eug., Epernay.**—Apparatus for vine-culture and for the manufacture of sparkling wines. 673

203 **Malligand, Ed., jr., Paris.**—Alcohol tester. 673

204 **Pernollet, Jh., Paris.**—Sieves, sorters, and root knives. 673

205 **Tricourt, A., Reims.**—Wine manufacturing machines. 673

206 **Chenaillier, Paris.**—Evaporator. 673

207 **Cicile, Larbre, Reims, Marne.**—Machines for cleaning bottles. 673

208 **Dornon, L., Lyons.**—Gauzes for bolting-rooms and sieves. 674

209 **Perard, V., Paris.**—Sheep-shearing machine. 674

210 **Fauqueux, A., La Ferté-Sous-Jouarre, Seine and Marne.**—Millstones. 674

211 **Durvie, Ivry-la-Bataille, Eure.**—Mechanical kneading-trough. 674

212 **Scheidecker, Ch., Paris.**—Shearing machines. 674

213 **Roger, jr., & Co., La Ferté-Sous-Jouarre, Seine and Marne.**—Millstones. 674

214 **Sensfelder, Arcueil, Seine.**—Shearing machines. 674

215 **Aubin & Baron, Paris.**—Millstones. 674

216 **Bailly & Co., La Ferté-Sous-Jouarre, Seine and Marne.**—Millstones. 674

217 **Bertrand, J., & Co., La Ferté-Sous-Jouarre.**—Millstones. 674

Agricultural, Engineering, and Administration.

218 **Coignet, senior & junior, & Co., Paris.**—Manure. 681

219 **Midi Phosphate Manufacturing Co., Paris.**—Phosphate of lime. 681

220 **Jacquand, senior & junior, Lyons.**—Animal charcoal, phosphates, etc. 681

221 **Solfatare de Pozzuoli Manufacturing Co., Paris.**—Artificial manure. 681

222 **Sensfelder, Arcueil, Seine.**—Artificial manure. 681

223 **Tancrede Bros., Paris.**—Animal charcoal. 681

224 **Desfeux, Ph., Paris.**—Models of agricultural sheds. 683

---

225 **Brot, Leopold, Paris.**
a Furniture and mirrors with double shutters and triple front. 217
b Mirrors with gilt frames. 219

For classes of exhibits, indicated by numbers at end of entries, see Classification pp. 12–14.

GERMANY.

(West of Nave, Columns 1 to 4.)

Forest, Agricultural, Vegetable, Animal Products.

Arboriculture and Forest Products.

1 Köerper & Co., Mannheim.—Resinous products in a manufactured state. 603

Agricultural Products.

1*a* Aly, August, Hamburg.—Barley, oats, grits, buckwheat, etc.. 620
2 Noll, Joh. Balth., Giessen.—Cigars. 623
3 Grosskopf, L., Koenigsberg.—Cigarettes. 623
4 Eckstein, A. M., & Sons, Göttingen.—Tobacco and cigarettes. 623
5 Gaus, August, Baden-Baden.—Tobacco and cigarettes. 623
6 Landfried, P. J., Rauenburg.—Cigars. 623
7 Scherzinger, W., Stollhofen.—Tobacco and cigarettes. 623
8 Lotzbeck Bros., Lahr.—Snuff and tobacco. 623
9 Naumann, L., Dresden.—Spices. 623
10 Muller, A., Dresden.—Cigarettes. 623

Animal and Vegetable Products.

13 Köerper & Co., Mannheim.—Grease and oil. 652
16 Dessauer, A., Aschaffenburg.—Parchment glue. 652
17 Winter, Fr., Offenbach-on-Main.—Glue. 652
21 Leipsic Malt Factory, Schkeuditz, near Leipsic.—Malt. 656
22 Moskopf, Th., Fahr, near Neuwied.—Mustard. 656
24 Naumann, L., Dresden.—Extracts, essences, etc. 656
28 Schörke, A., Gorlitz.—Grape sugar, assorted syrups. 659

COLLECTIVE EXHIBIT OF GERMAN WINES. 660

29 Altenkirch, F., Lorch.
30 Dahlen, J. F. J., Lorch.
31 Germersheimer, Jac., Lorch.
32 Dahlen, F. K., Lorch.
33 Travers, Franz, Lorch.
34 Wittemann, Peter, Lorch.
35 Fendel, H. J., Lorch.
36 Jung, Joh. Ant., Assmanshausen.
37 Brück, Erwin, Assmanshausen.
38 Grün, Wilh., Assmanshausen.
39 Kerber, Pet. Jos., Assmanshausen.
40 Aumüller, Jac., Rüdesheim.
41 Brandmüller, J. B., Rüdesheim.
43 Dietrich & Co., Rüdesheim.
44 Dilthey, Sahl, & Co., Rüdesheim.
45 Ehrhardt, C., Rüdesheim.
46 Ehrhardt, J., Rüdesheim.
48 Jung, J. J., Rüdesheim.
49 Jung & Co., Rüdesheim.
50 Krass, J. A., Rüdesheim.
51 Meuschel, J. W., sr., Rüdesheim.
52 Schulz & Reuter, Rüdesheim.
53 Winkel & Rothenbach, Rüdesheim.
54 Burgeff, N., Geisenheim.
55 Höhl Bros., Geisenheim.
56 Lade, Fritz, Geisenheim.
57 Quitman, A., Geisenheim.
58 Rothe & Thorndike, Geisenheim.
59 Metternich, Prince von, Johannisberg.
60 Forst, J., Johannisberg.
61 Klein, Joh., Johannisberg.
61*a* Germont, L. F., Winkel.
62 Müller, Gottl., Winkel.
63 Cunibert, Baron von, Oestrich.
64 Peez, Ernst, Oestrich.
65 Rasch, Oestrich.
66 Steinheimer, C. J. B., Oestrich.
68 Lauer & Krämer, Eltville.
69 Nilkens, A., Eltville.
70 Preusel & Bachmann, Eltville.
72 Schmidt & Kett, Eltville.
73 Kindlinger, V., Neudorf.
74 König, J. B., Rauenthal.
75 Siegfried, Rauenthal.
76 Rosenstein, B., Wiesbaden.
77 Zais, Wilhelm, Wiesbaden.
78 Diener, H., Hochheim.
80 Feist Bros. & Sons, Frankfort-on-Main.
81 Kehrmann, Fr., Coblentz.
82 Buhl, F. P., Deidesheim.
82*a* Jordan, L. A., Deidesheim.
82*b* Schellhorn, Walbillich.
83 Feis, Louis, Deidesheim.
84 Eckel Bros., Deidesheim.
85 Seyler, Fr., Deidesheim.
86 Frölich, F. A., Edenkoben.
87 Vornberger, J. M., Würzburg.
87*a* Labroise Bros., Neustadt-on-Hardt.
88 Lang, F. J., Würzburg.
89 Oppmann, J., Würzburg.
91 Valckenberg, P. J., Worms.
92 Langenbach, J., & Sons, Worms.
93 Bach, A. H., Mayence.
95 Dreydelsohn & Co., Mayence.

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Wines, Textile Substances, Machines, Implements.

95*a* Saarbach, E., & Co., Mayence.
96 Jäger & Son, Rüdesheim.
97 Meyer & Coblenz, Bingen.
98 Orb & Weiss, Westhofen.
99 Herbster, J., Sulzburg.
100 Durlacher, S., & Sons, Kippenheim.
101 Schütt, A., Bühl.
102 Rössler, A., Neuweier.
103 Brogsitter, P. F., Ahrweiler.
103*a* Kessler, C. E., & Co., Esslingen.

---

104 Häusler, C. S., Hirschberg, Silesia.—Wine and cider. 66o
105 Rhenish Sparkling Wine Co., Schierstein.—Wine. 66o
106 Henkell & Co., Mayence.—Wine. 66o
107 Lindecke, A. G., Magdeburg.—Wines. 66o
107*a* Wetterhahn, G., Mayence.—Wines. 66o
108 Bäcker & Fier, Treves.—Liqueurs and brandies. 66o
109 Behrensen, Th., Kiel.—Wines and brandies. 66o
110 Boyens, P. W., Tönning.—Liqueurs and spirits. 66o
111 Brumby, G., Luckau.—Bitters. 66o
112 Dammann, L., & Cordes, Thorn.—Spirits, bitters, essences, etc. 66o
113 Hoffmann, M. & J., Pfalzburg.—Liqueurs. 66o
114 Kadach, J., Berlin.—Bitters and cherry-juice. 66o
115 Keiler, J. S., Dantzic.—Liqueurs. 66o
116 Landauer & Macholl, Heilbronn.—Liqueurs. 66o
117 Stein, G. & L., Offenburg.—Liqueurs. 66o
118 Stibbé, H., Cologne.—Liqueurs and essences. 66o
119 Underberg-Albrecht, H., Rheinberg.—Bitters. 66o
120 Drouven, Jac., & Co., Coblentz.—Liqueurs, arrack punch-syrup. 66o
121 Gilka, J. A., Berlin.—Liqueurs and spirits. 66o
122 Lehment, Fr. & C., Kiel.—Liqueurs and spirits. 66o
123 Köpp, Th., & Son, Wesel.—Spirit of vinegar and extracts. 66o
124 Ulex, G. F., successors, Neuhaus-on-the-Oste.—Bitters. 66o
125 Kantorowicz, H., Posen.—Liqueurs and fruit juices. 66o
126 Lazar Brothers, Königsberg, Prussia.—Fruit juices. 66o
127 Naumann, Fr., Delitzsch.—Liqueurs and fruit juices. 66o
128 Bernhardt, A., Breslau.—Essences and liquors. 66o
129 Schneider & Schorn, Magdeburg.—Essence of Jamaica rum. 66o
130 Buck Bros., Lübeck.—Vinegar. 66o
131 Stengel, W., Leipzig.—Potato brandy. 66o
132 Meyer, Edward, Stadthagen.—Herb-bitters. 66o
133 Ackermann, Louis, Berlin.—Liqueurs. 66o
133*a* Kirchner, A., & Co., Deedesdorf.—Liquors. 66o
134 Wiedenbrug, H. T., Barmbeck.—Liqueurs. 66o
COLLECTIVE EXHIBIT OF BAVARIAN HOPS, BEER, AND LITERATURE RELATING THERETO. 66o
135 Dreifuss & Binswanger, Nuremberg.
136 Sahlmann Bros., Fürth.
137 City Council of Spalt.
138 Carl, J., Nuremberg.
139 Homann, C., Nuremberg.
140 Bottinger, H. F., Würzburg.
141 Böutteville, Baron von Mering.
142 Geisel, L., Neustadt-on-the-Hardt.
143 Pschorr Brewery, Munich.
144 Baron von Thüngen Brewery, Weissenbach.
145 Weltz, H., Speier.

---

146 Bavarian Joint-Stock Brewery, Aschaffenburg.—Beer. 66o
146*a* Sick, Chr., Speier.—Beer. 66o
147 Dortmund Brewery, Aix-la-Chapelle.—Beer. 66o
148 Friedrichshöhe Joint-stock Brewery, Berlin.—Beer. 66o
149 Hildebrand, J., Pfungstadt.—Beer. 66o
150 Overbeck, Peter, Dortmund.—Beer. 66o
152 Berlin Brewing Co., Tivoli, Berlin.—Beer. 66o
152*a* Roeper, J. F., Neuwied.—Macaroni, vermicelli, tapioca, etc. 661
152*b* Stollwerk Bros., Cologne.—Chocolates, etc. 661

Textile Substances of Vegetable or Animal Origin.

154 Mens, R. von, Carlsdorf, Silesia.—Merino wool. 667
155 Stein, H., & Co., Frankfort-on-Main.—Spun horse-hair. 669

Machines, Implements and Processes of Manufacture.

156 Mayer & Co., Kalk, near Cologne.—Winnowing and sorting machine. 672
157 Royal Wurtemberg Furnaces, Friedrichsthal.—Scythes, choppers, etc. 674
158 Joacks & Behrns, Lubeck.—Model of a set of millstones. 674

Agriculture Engineering and Administration.

161 Raumer, C. von, Kunnersdorf, Silesia.—Works and models relating to drainage and irrigation. 681

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

AUSTRIA.

(*West of West Aisle, Columns 1 to 4.*)

Forest, Agricultural, Animal and Vegetable Products.

Arboriculture and Forest Products.

1 Weissmann, David, Adlersberg, & Isaac Leib, Perehinsko, Gallicia.—Sounding-board wood. 600

2 Frankl, I. G. & L., Vienna.—Austrian timber for furniture manufacturers. 600

Pomology

4 Zierotin, Countess Gabriel von, Charles Pohl, chief gardener, Blauda, Moravia.—Gooseberry and currant bushes, two different fruits growing on the same stem. 610

6 Markó & Weyden, Budapest.—Turkish prunes. 611

Agricultural Products.

7 Lyka, Demeter, Pázmánd, Hungary.—Wheat. 620

8 Solnitzky & Mittler, Brunn.
a Malt and barley. 620
b Pulses. 621

9 Gogl, Dr., jr., Zeno, Krems.—Mustard. 623

10 Chleborad, Franz, Ladislav, Mraiditz.—Hops. 623

12 Tanzer Bros., Prague.—Hops. 623

13 Schwarz & Sons, Benjamin, Auscha, Bohemia.—Hops. 623

14 Schary, Johann Michael, Prague.—Hops. 623

Water Animals, Fish Culture and Apparatus.

18 Topich, Antonio, Lissa, Dalmatia.—Preserved fish. 641

Animal and Vegetable Products.

19 Kreitner & Sons, David, Hohenbruck, Bohemia.—Leather. 652

20 Ieleinek, Adolph, Lieben, Bohemia.—Glove leather. 652

22 Ianesch, Edward, Klagenfurt, Karnthen.—Leather. 652

23 Hoffman, I. and S., Klagenfurt, Karnthen.—Leather. 652

24 Foges, I., Gaudenzdorf, near Vienna.—Leather, calf and goat skins. 652

25 Eckstein, H. M., Lieben.—Kid leather. 652

26 Cernstein, Anton V., Pardubitz, Bohemia.—Cow leather and calf skin. 652

27 Breuer, Miromil, Elbeteintz, Bohemia.—Patent leather. 652

30 Suess, A. H., & Sons, Vienna.—Leather. 652

31 Schmitt, Franz, Rehberg, near Krems.—Leather. 652

32 Schmalzl, George, Gaudenzdorf, near Vienna.—Leather, skins. 652

33 Neuner, Christof, Klagenfurt and Trieste.—Leather. 652

34 Mehlshmidt, Franz, Prague.—Kid leather. 652

34*a* Nachtmann, Jacob, Tannwald.
a Honey. 654
b Raspberry syrup. 659
c Wine and liquors. 660

36 Tschurtschenthaler, Alois, Botzen.—Conserved and dried fruits. 656

37 Sandpichler, Leopold, Gorz.—Candied fruit. 656

37*a* Gfall, Josef Anton, Innsbruck.—Condensed meat and milk. 656

38 Kaufmann, M., Brunn.—Moravian malt. 657

39 Solnitzky & Mittler, Brunn.
a Barley. 657
b Malt. 660

41 Rosenthal, I., Vienna.—Wheat, wheaten flour. 657

42 Chiozza, Luigi, Cervignano, near Trieste.—Maize products. 658

43 Frizzi, Luigi, Trient.—Wine. 660

45 Auchmann, F., Marburg, Styria.—Champagne. 660

47 Achleb, Josef, The Farms, Kvasnei.—Liquor. 660

47 Abeles, Heinrich, Vienna.—Wine. 660

48 Magazzin, Matteo, Zara.—Liquors. 660

49 Luxardo, Girolamo, Zara, Dalmatia.—Liquors. 660

51 Lord & Co., F., Vienna.—Liquor. 660

53 Siebenbürger Wine Association, Klausenburg.—Wines. 660

54 Cosmacendi, Anton, Zara.—Liquors. 660

55 Mumelter, Alois, Bozen.—Tyrol wines. 660

56 Kriehuber, Alois Edler von, Marburg, Styria.—Wine. 660

57 Königstädtler Bros., Neusatz, Hungary.—Spirit alcohol. 660

58 Ganz, Joseph, Dornberg, near Gorz.—Wine. 660

59 Fischer, Johann, jr., & Franz Hubert, Presburg, Hungary.—Champagne. 660

60 Dreher, Anton, Kleinschwechat, near Vienna.—Beer. 660

61 Dalbello, Antonio, Spalato, Dalmatia.—Liquor. 660

62 Brewery Administration, Budweis, Bohemia.—Beer. 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Animal and Vegetable Products, Textiles, Implements.

64 Borhegyi Bros., Gaya, Moravia.—Wine. 660

65 Wretzl, Michael, Marburg, Styria.—Wine. 660

66 A. Schwartzer's Successors, Edward & Emmerich Grossinger, Vienna.—Wine. 660

67 Sessler, Moritz & Leopold, Tyrnau, Hungary.—Malt. 660

68 Schnabel, Julius, Orávitzá, Hungary.—Slivovitz brandy. 660

69 Schenkel, August, Gut Lukaufzen, near Luttenberg.—Wine. 660

70 Scarizza Giovanni, Spalato, Dalmatia.—Liquors. 660

70*a* Stampalia, Tommaso, Zard.—Maraschino. 660

71 Romer & Son, I., Vienna.—Wine. 660

72 Reiser, Dr. Othmar, Vienna.—Wine. 660

74 Prima Societa Enologica Dalmatia, Spalato, Dalmatia.—Wine. 660

75 Pokorny, Franz, Agram, Croatia.—Fruit distillery, wine. 660

76 Perko, Francis, Marburg, Styria.—Wine. 660

77 Noziczka, L. C., & W. Umgelter, Brunn.—Malt. 660

78 Mittler & Co., Brunn.—Malt. 660

79 Strakosch, Ignaz, Gross Seelovitz, Moravia.—Liquor essences. 660

80 Neuman & Sons, Emanuel, Waitzen, Hungary.—Vinegar essences. 660

81 Spreng, Fridolin, Graz.—Biscuits. 661

82 Brichta, Jacob, Trencsin, Hungary.—Juniper berries and oil. 662

Textile Substances of Vegetable or Animal Origin.

83 Russ & Co., M. H., Prague.—Hops. 666

83*a* Zeschks, L., Agram.—Rags. 666

84 Land & Forest Economy District Union, Neustadtl, Moravia.—Flax. 666

85 Narbuth, Johann, Palanka, Hungary.—Hemp. 666

86 Károlyi, Count Alois, Stampfen, Hungary.—Sheep wool in fleeces and rolls. 667

87 Hunyady, Count Emerich, Uermenyi, Hungary.—Wool fleeces. 667

88 Sheep-wool Washing Co., Budapest.—Cleaned wool. 667

Machines, Implements, and Processes of Manufacture.

89 Auer, Josef, Senftenberg, near Krems.—Vine shears, gardeners' and insect scissors, pruning saw, and sheep shears. 670

91 Austrian Commission, Vienna.—Scythes and sickles. 672

92 Mosdorfer, Balthasar, Weiz, Styria.—Sickles. 672

93 Reibstein, Ignaz, Bubenc, Bohemia.—Beehives and utensils. 674

Agricultural Engineering and Administration.

94 Wärmer, Sigmund, Vienna.—Drain pipes. 680

95 Konnstein, Gottfried, Prague.—Ether and essences. 681

96 Sheep-wool Washing Co., Budapest.—Potash. 681

97 Haas & Rosenfeld, Gaya.—Ether. 681

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

(*N. B.—Other Austrian Exhibits in this Department are installed in the Main Building, and catalogued in that volume.*)

SWITZERLAND.

(NOTE.—*The Agricultural Exhibit of Switzerland is installed in the Main Building, and catalogued in that volume.*)

BELGIUM.

(NOTE.—*The Agricultural Exhibit of Belgium is installed in the Main Building, and catalogued in that volume.*)

NETHERLANDS.

(*West of West Aisle, Columns 3 to 5.*)

Agricultural, Animal, Vegetable Products.

Arboriculture and Forest Products.

1 Thyssen, C. J. F.—Sieve frames. 600

2 Kleintjes, J., Rotterdam.—Plant 100 years old. 601

3 Hulskamp, F. A., Amsterdam.—Cork. 604

Agricultural Products.

4 Dutch Agricultural Society (collective exhibit.—Agriculture, horticulture, arboriculture. 620

5 Agricultural Association (collective exhibit), Geldrian.—Agricultural products. 620

6 Zeeland Association for Encouragement of Agriculture & Cattle-Breeding (collective exhibit), Middleburg.—Seeds, dye-woods, plants, and photographs of cattle. 620

7 Bouma, N. G. & J. G., Sneek.—Buckwheat. 620

8 Poel, Cz. P. van der, Brielle.
a Wheat, barley, oats. 620
b Cabbage. 621
c Seeds. 624

9 Post, C. G. van der, Gouda.—Cigars. 623

10 Bleckmann, A. & B. C., & Van der Poel, H., Arnhem.—Cigars. 623

11 Mignot, A. J., & de Block, A. A. M., Eindhoven.—Cigars. 623

12 Jagt, P. G. van der, & Francois, J., Utrecht.—Cigars. 623

13 Koppen, H. T., & Son, Leerdam.—Cigars. 623

Water Animals, Fish Culture and Apparatus.

14 Maas, A. E., Scheveningen.—Boats, nets, hooks, etc. 647

Animal and Vegetable Products.

15 Heil, L. W., Haarlem.—Edam cheese. 651

16 Goede, D., Alkmaar.—Cheese. 651

17 Vliet, A. van, Bergambacht.—Cheese and butter. 651

18 Jong, de, M. & K., Hoorn.—Edam cheese. 651

21 Draisma van Valkenburg, S., Leeuwarden.—Liver-oil containing iodine and iron. 652

22 Heijnsbergen, P. van, Zaandam.—Liver-oil containing iron. 652

23 Klütgen, J. H., Rotterdam.—Bed-feathers. 652

24 Visser, J., Amersfoort.—Brown and white wax. 654

25 Surie, Widow J. W., & Son, & Co., Rotterdam.—Preserved eatables. 656

26 Nieuwenhuijs, J. H., jr., & Co., Amsterdam.—Conserved eatables in tins, boxes, and bottles. 656

28 Hoogenstraaten, D. A. J., Leiden.—Vegetables and fruit in cans and boxes. 656

29 Wolff, M. B., Amersfoort.—Flour, ground and unground. 657

30 Schober, J. H. S., Utrecht.—Flour. 657

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp 12–14.

Animal and Vegetable Products.

31 Van Marken, J. C., jr., Delft.
a Corn. 657
b Alcohol. 660
c Corn cakes. 661
d Oil. 662

32 Grootes, Pz. M., Westzaan.—Cacao, chocolate, and chocolatine. 658

33 Driessen, C. A., J. P., & H. T., Rotterdam. — Cacao, chocolate, and cacao-butter. 658

34 Haagen, R. C. van, Utrecht.—Cacao, cacao-butter, and chocolate. 658

35 Egberts, B. H., Dalfsen.—Succory. 658

36 Duijvis, J., Koog-aan-de-Zaan.—Starch. 658

37 Veenhoven, Schuringa, & Co., Wildervank.—Potato-flour. 658

38 Sloet van Marxveld, G., Baron, Vollenhoven.—Syrup in bottles. 659

39 Verweij, N., & Co., Tiel.—Sugar of grape and potato-meal. 659

40 De Bont, M. J., Amsterdam.—Confectionery and chocolate, in forms and moulds. 659

41 Visser, J., Amersfoort.—Brown and white mead. 660

42 Pollen, L. P. M., Rotterdam.—Liquors. 660

43 Schade van Westrum, J. C., Schiedam.—Gin. 660

44 Kiderlen, E., Delfshaven.—Alcohol and potash. 660

45 Bal, J. J., Middelburg.—Red currant wine. 660

46 Catz, S., Pekel, A.—Bitters and liquors. 660

47 Groen, Gz. J. B., Amsterdam.—Bitters and wine. 660

48 Stibbe, Lz. G., Kampen.—Fine liquors and bitters. 660

49 Nolet, J. J. G., Schiedam.—Gin and spirits. 660

50 Bootz, Erven Wed, F. A., Amsterdam.—Liquors. 660

51 Blankenheijm, J. J. M., & Lede, C. A. E. van, Rotterdam.—Gin. 660

52 Hoppe, P., Amsterdam.—Gin, liquors, and distillations. 660

53 Bols, de Erven Lucas, Amsterdam.—Fine liquors. 660

54 Oostra, G. Wildervank, Groningen.—Liquor and elixir. 660

55 Hofman, A. J. T., Woerden.—Liquors, bitters, extracts, and spirits. 660

56 Wynand, Fockink, Amsterdam.—Fine liquors. 660

57 Houtman, A., & Co., Schiedam.—Gin. 660

58 Valk, J. van der, & Co., Delfshaven.—Gin made of grain double distilled. 660

59 Zuijlekom, van Levert, & Co., Amsterdam—Fine liquors, bitters, gin, brandy, etc. 660

60 Meder, J. J., Schiedam.—Swan gin. 660

61 Levert & Co., Amsterdam.—Liquors. 660

62 Rademakers, A. C., Delfshaven.—Gin. 660

63 Smits, F. H. M., Breda.—Strong beer. 660

64 Van Dulken, Weiland, & Co., Rotterdam.—Gin, brandy, and alcohol. 660

65 Lensvelt, G., Gravenhage.—Table-biscuit, cake, ship-bread. 661

66 Ulrich, W. D., Rotterdam.—Ship-biscuit. 661

67 De Jongh, Wz. D., Dordrecht.—Vegetable oils and seed cakes. 662

68 Kruijsmulder, Cz. D., Amsterdam. Vegetable oils. 662

69 Dutch Association for Encouragement of Flax Industry, Rotterdam.—Flax and linseed. 666

70 Gorter Brothers, Dokkum.—Flax. 666

71 Van Casteel, A. F., Rotterdam.—Holland, Freeland, and Iceland flax. 666

72 Mulder, L., Arnhem.—Agricultural newspaper. 306

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

DENMARK.

(NOTE.—*The Agricultural Exhibit of Denmark is installed in the Main Building, and catalogued in that volume.*)

SWEDEN.

(West Avenue, Columns 6 to 10.)

Forest, Agricultural, Animal, and Vegetable Products.

Agriculture, Arboriculture, and Forest Products.

1 New Gellivara Co. (limited), Lulea.—Fir timber grown at the latitude of 67° N.; specimens of lumber. 600

Agricultural Products.

3 Fogelmark, Sixten, Ava, Lulea.—Cereals. 620

4 Hagendahl, C. A., Orebro.
a Cereals. 620
b Seeds. 624

5 Hofmeister, Ch., Ingelstad, Kristianstad.—Cereals. 620

6 Hultenberg, C. A., Borgholm.—Barley. 620

6*a* New Gellivara Co. (limited), Lulea.—Agricultural products. 620

7 Kalmar Agricultural Society, Westervik.—Cereals. 620

8 Norbotten Agricultural Society, Lulea.—Agricultural products. 620

10 Platen, Count Carl von, Örbyhus.—
a Cereals. 624
b Seeds of forage plants. 620

12 Scheéle, G. von, Kilanda, Göteborg.
a Cereals. 620
b Grass seeds. 624

14 Stenström, O. E., Gardsjö, Karlstad.—Cereals. 620

15 Upsala Agricultural Society, Upsala.
a Cereals. 620
b Seeds. 624

16 Westerbottens Agricultural Society, Umea.—Cereals. 620

17 Westmanlands Agricultural Society, Stenby, Strömsholm.
a Cereals. 620
b Seeds. 624

19 Orebro Agricultural Society, Orebro, Nora.—Cereals. 620

21 Berggren, D. & J., Stockholm.—Tobacco. 623

22 Dahl, P., Carlshamn.—Snuff. 623

23 Hennig & Papenhagen, Kalmar.—Chicory. 623

Water Animals, Fish Culture, and Apparatus.

27 Amundson, Mrs. C. M., Uddevalla.—Oyster anchovy. 642

28 Andersson, Gustaf, Fjellbacka.—Anchovy and sardines. 642

29 Bergström, H. C., Lysekil.—Anchovy and herrings. 642

30 Ericsson, N. O., Tangen, Lysekil.—Anchovies and herrings. 642

31 Hallgren, J. J., Gullholmen, Oroust.—Anchovies and herrings. 642

32 Royal Swedish Commission, Stockholm.
a Pickled fish. 642
b Instruments and apparatus for fishing. 647

33 Lundgren, P. W., Stockholm.—Preserved fish. 642

34 Lysell, Aug., Lysekil.—Anchovies. 642

35 Nilsson, Edv., Grebbestad.—Preserved mackerel. 642

Animal and Vegetable Products.

38 Wästfelt, Carl C., Kölingsholm Mullsjö.—Rennet. 651

40 Ericsson, Anders, Stockholm.—Calfskins. 652

41 Johannesson, C. S., Stockholm.—Leather. 652

44 Frommel, C. J., Göteborg.
a Preserved fruits. 656
b Confections. 661

45 Wikström, Zacharias, Stockholm.—Preserved vegetables. 656

46 French Steam Flour Mills, Landskrona.—Flour and grit. 657

47 Scheéle, G. von, Kilanda, Göteborg.—Flour and other products of grinding. 657

48 French Steam Flour-Mills, Ystad.—Flour and other products of grinding. 657

52 Berg, C. G., Karlshamn.—Punch and whisky. 660

53 Bergen, J. N. von, & Son, Karlshamn.—Punch. 660

54 Broddelius & Akerman, Göteborg.—Punch. 660

55 Cederlund's, J., Sons, Stockholm.—Punch. 660

56 Creutz, A., Mariefred.—Punch. 660

57 Dahlheim & Engström, Stockholm.—Punch. 660

59 Högstedt & Co., Stockholm.—Punch. 660

60 Moboda Manufacturing Co., Moboda.—Spirits made from lichens. 660

61 Tulldahl, A. H., Landskrona.—Pale ale. 660

62 Petterson, Otto, Stockholm.—Punch. 660

63 Platin, C. G., & Co., Göteborg.—Punch. 660

64 Thalin, Waldemar, Nyköping.—Punch. 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Machines, Implements, Engineering, and Administration.

65 Wallis, A. B., Dybeck, Ystad.—Ale. 661

65a Ullander, A., Upsala.—Punch. 660

66 Feith, H. J., & Son, Upsala.—Biscuits. 661

67 Royal Swedish Commission, Stockholm.—Dried bread. 661

Machines, Implements, and Processes of Manufacture.

69 Eklundh, L. P., Ulricehamn.—Plows. 670

70 Göteborg Machine Co. (limited), Göteborg.—Plows. 670

72 Petterson, C. E., Elfdalen.—Scythes. 672

73 Andersson, J., Orebro.—Cow and sheep bells. 675

74 Atterling, C., Orebro.—Dairy apparatus. 675

75 Kallinge Iron Works, Malmö.—Dairy utensils of iron and pewter. 675

76 Rehnström, W., Köping.—Drawing of dairy-houses and utensils. 675

Agricultural Engineering and Administration.

79 Friestedt, A. W., Stockholm.—Commercial fertilizers. 681

80 Betou, P. D. in de, Stockholm.—Artificial manures. 681

81 Superphosphate Manufacturing Co., Stockholm.—Fertilizers. 681

84 Löfvenskiöld, Ch., Mariestad.—Drawings of farm-houses. 683

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

NORWAY.

(West of West Aisle, Columns 6 to 10.)

Forest, Agricultural, Animal, and Vegetable Products, Fish Culture.

Arboriculture and Forest Products.

1 Holst, Chr., Ladegaardsöen, Christiania.—Samples of Norwegian wood. 600

4 Holmen's Sawing & Planing Mills, Drammen.—Grooved and tongued flooring boards and mouldings. 600

5 Koldfossen's Bobbin Works, near Bergen.—Blocks and bobbins of birch and alder, condenser props, etc. 600

6 Thams & Co., M., Orkedal.—Trunks of trees, planks, battens, staves, cornices, cases, etc. 600

Agricultural Products.

7 Schirod, Chr., Aker.—Wheat, rye, corn, and barley. 620

8 Holst, Chr., Ladegaardsöen, Christiania.—Cereals in ear and seeds. 620

9 Agricultural School, Aas near Christiania.
a Oats, rye, and barley. 620
b Seeds. 624

10 Rosenkrone, Baron, Rosendal.—Grain. 620

11 Stend Agricultural School.
a Corn. 620
b Potatoes. 622

11*a* Brovold, T.—Grain. 620

11*b* Torkildsen, J.—Grain. 620

11*c* Svanoe, Chr.—Grain. 620

Land Animals.

12 Holst, Chr., Ladegaardsöen, Christiania.—Photographs of Telmark cows and description of the race. 631

Marine Animals, Fish Culture and Apparatus.

13 Museum of Bergen, Bergen.
a Mammals. 640
b Fishes. 641
c Crustaceans. 643
d Mollusks, oysters, etc., stuffed and in alcohol 644

15 Bergens Rögeri, Bergen.—Red herrings. 642

16 Board of Commerce, Bergen.
a Herrings, cods, lings, saithes, tusks, haddocks, etc., pickled and dried. 642
b Fish-oil, fish-roes. 646

17 Board of Commerce, Alesund.
a Dried and salted fish. 642
b Collection of fishing tackle. 647

18 Hjul & Platou, Christiania.—Anchovies. 642

19 Johnsen, Chr., Christiansund.—Salted and dried cod. 642

21 Mohn, Peter, Bergen.—White herrings. 642

22 Nordrock, Wm., Christiania.—Anchovies. 642

23 Tellefsen, Mrs. Rina, Christiania.—Anchovies. 642

24 Smith, Mrs. Gina, Christiania.—Anchovies. 642

25 Soyland, L. B., Flekkefjord.—Preserved fish. 642

26 Dons, Henrik, Christiania.—Fish and anchovies. 642

27 Helgesen, H. A., Aalesund.—Preserved salmon, lobsters, etc. 642

28 Ronneberg, Carl A., Aalesund.—Salt fish. 642

29 Hjorth, Fr., Fredrikstad.—Anchovies. 642

30 Lund, Georg, Christiania.—Anchovies. 642

31 Thorne, Chr. Aug., Moss.—Anchovies. 642

32 Egidius, Peter, Bergen.—Herring and anchovies. 642

33 Bordewich & Co., Lyngvær.—Fish-meal, fish-glue, caviar, fish-oil. 646

34 Dahl, Jens. O., Havöen.—Cod and herring nets, cod-lines. 647

35 Erichsen, Thomas, Bergen.—Fish-hooks. 647

36 Fagerheim Net Company, Bergen.—Salmon and herring seines, cod, mackerel, and herring nets. 647

37 Kraasby Brothers, Aalesund.—Bait for cod-lines. 647

38 Falck, Ytter, Christiania.—Norwegian fishing sled with implements. 647

39 Bergen Glass Works, Bergen.—Buoys and floats for fishing nets and lines. 647

Animal and Vegetable Products.

40 Rosing's, A., widow, Christiania.
a Condensed milk. 651
b Crackers of fishmeal. 661

40*a* Stend Agricultural School.—Butter. 651

41 Lund, Georg, Christiania.—Preserved old cheese. 651

42 Klem, Hansen, & Co., Trondhjem.—Leather and belting. 652

43 Meyer, Samuel B., Bergen.—Leather. 652

44 Hallen, J. P., Christiania.—Leather. 652

45 Fossen's Tannery, Flekkefjord.—Leather. 652

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14

Animal and Vegetable Products, Implements, Engineering.

46 Dalen's Tannery, Flekkefjord.—Leather. 652

48 Haar & Wesnaes, Stavanger.—Preserved meats, etc. 656

49 Helgesen, H. A., Aalesund.—Preserved meats, etc. 656

50 Stavanger Preserving Company, Stavanger.—Preserved meats, beef, fowls, fish, milk, cream, etc. 656

51 Dons, Henrik, Christiania.—Preserved meats, game, poultry, soups. 656

52 Tellefsen, Mrs. Rina, Christiania.—Preserved game. 656

53 Norwegian Condensed Milk Company, Christiania.—Condensed milk. 656

54 Thorne, Chr. Aug., Moss.—Preserved meat and vegetables. 656

55 Norwegian Preserving Co., Mandal.—Preserved meats and vegetables. 656

56 Christiania Brewery, Christiania.—Pale ale. 660

57 Dahl, E. C., Trondhjem.—Pale ale. 660

58 Forseth, O. N., & Co., Christiania.—Pale ale. 660

59 Frydenlund Brewery, Christiania.—Pale ale. 660

60 Hamar Brewery, Hamar.—Pale ale. 660

61 Kongsberg Brewery, Kongsberg.—Pale ale. 660

63 Lysholm, Jorgen B., Trondhjem.—Norwegian brandy and punch. 660

64 Poulsen, H., & Co., Christiania.—Arrack punch. 660

65 Ruud, J. A., Christiania.—Pale ale from Moss brewery, Norwegian corn brandy. 660

66 Aass, P. L., Drammen.—Beer. 660

68 Wriedt, Chr., Drammen.—Beer. 660

69 Tandberg, Frants, Drammen.—Norwegian cordials. 660

70 Salicath, Oscar, Christiania.—Sugar-drops and punch. 660

71 Anisdahl, R. O., Skien.—Drops and peppermint. 662

Machines, Implements, and Processes of Manufacture.

72 Cathrineholm's Foundry, Fredrickshald.—Agricultural implements. 670

72*a* Stend Agricultural School.—Plows. 670

73 Rosing, Ulrik, Christiania.—Mask for killing cattle. 674

Agricultural Engineering and Administration.

74 Norwegian Fish Guano Company, Christiania.—Fish guano. 681

75 Bordewich & Co., Lyngvær.—Fish guano. 681

76 Foyn, Sven, Tonsberg.—Fish guano. 681

77 Holst, Chr., Ladegaardsöen, Christiania.—Norwegian artificial manure. 681

77*a* Foyn, Sven, Tonsberg.—Whale oil, stearine. (*See Department II., Main Building.*) 201

77*b* Board of Commerce, Aalesund.—Models of fishing boats. 594

77*c* Museum of Bergen, Bergen.—Models of fishing boats; fisherman's hut and ice store. 594

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

ITALY.

(West of East Avenue, Columns 1 to 4.)

Fruits, Agricultural, Animal, Vegetable Products.

Arboriculture and Forest Products.

1 Favare, Marquis Delle, Palermo.—Sumac leaves. 602

2 Romano, Gaetano, Palermo.—Sumac. 602

3 Cernigliano, Vizzi Carmelo, Trapani.—Sumac leaves. 602

4 Castorina & Parlato, Catania.—Sumac. 602

5 Scala, Baron Sciacca della, Palermo.—Sumac. 602

6 Aula, Domenico, & Co., Trapani.—Sumac. 602

7 Special Committee of Salerno, Salerno.—Manna. 603

8 Chamber of Commerce and Arts, of Bari.—Sweet almonds, mustard seed. 605

9 Parlato, Luigi, Syracuse, Sicily.—Almonds. 605

10 Niceforo, Nicola, Catania.—Hazel nuts. 605

11 Elia, Antonino, & Sons, Catania.—Pistachio almonds, flax seed, hazel nuts, mustard seed. 605

12 Agricultural Committee of Palermo.—Collection of seeds. 605

13 Mazzullo, Cav. Luigi, Messina.—Dried nuts. 605

14 Council of Polizzi, Generosa, Palermo.—Avellane nuts. 605

Pomology

15 Rossi, Cav. Cesard Leopardi, Comiso, Syracuse.—Olives. 611

16 Crispo, Monceada Carlo, Catania.—Lemons, oranges. 611

17 Chamber of Commerce and Arts, of Bari.—Olives. 611

18 Lanzara, Raffaele, Salerno.—Lemons, oranges. 611

Agricultural Products.

19 Ciaccio, F. Paul, Palermo.—Various grains. 620

20 Agrarian Colony of S. Martino, Palermo.—Grains. 620

21 Grande Latino, Baron Corrado, & Bros., Avola, Palermo.—Grain products 620

22 Porcari, Baron Angiolo, Palermo.—Grain products. 620

23 Fornasa, Vincenzo, Cologna Veneta, Verona.—Various cereals. 620

24 Ferrarini Bros. & Co., Formigine, Modena.—Rice. 620

25 Malinverni, Secondo, Vercelli, Novara.—Rice. 620

26 Scocchiolini, Adone, Rome.—Mustard. 623

Water Animals, Fish Culture and Apparatus.

27 Avellino, Antonio, Leghorn.—Sardines in oil. 642

28 Stiassi, Filippo, Bologna.—Eels 642

Animal and Vegetable Products.

29 Agrarian Committee of Chiavari
a Cheese. 651
b Fruits. 656
c Wine and vinegar. 660

30 Guscetti, E., Milan.
a Parmesan and Gorgonzola cheese. 651
b Sausages. 656

31 Baldini, Agostino, & Co., Pescia, Lucca.—Sole leather. 652

32 Aste, D. Stefano, Public Slaughter House, Florence.—Albumen. 652

33 Casarino, Mariellus, St. Gottard, Genoa.—Leather. 652

34 Fornari, Antonio J. Batta, Fabriano, Ancona.—Leather. 652

35 Mercurelli, Pietro, Fabriano, Ancona.—Sole and colored leather. 652

36 Baluffi, Nicola, & Co., Ancona.—Dressed hides, leather for saddlery. 652

37 Varale, Antonio, Biella, Turin.—Dressed hides. 652

38 Banfi, Giuseppe Flavio, Milan.—Glue. 652

39 Fibbi, Raffaele, Fabriano, Ancona.—Glue and size. 652

40 Fino, Luigi, & Co., Turin.—Albumen. 653

41 Tramontani, D., Bologna.—Honey. 654

42 Brolo, Duke Federigo Lancia di, Palermo.—Honey of orange flower. 654

43 Scala, Baron Sciacca della, Palermo.—Honey and wax. 654

44 Morandi, Pietro, Milan.
a Wax. 654
b Liquors. 660

45 Reali, Giuseppe & Gavazzi, Ercole, Venice.—Wax. 654

46 Bartolucci-Godolini Brothers, Rome.—Honey. 654

47 Acclimatization and Agricultural Society of Palermo.
a Honey 654
b Fruits in alcohol. 656

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14

Animal and Vegetable Products, Wines.

48 Giannelli, Raffaello, Sienna.
a Honey. 654
b Juniper berries. 656

49 Massardo, Nicolo, Sampierdarena, Genoa.—Preserves. 656

50 Figatner, Enrico, Milan.—Dried meat. 656

51 Troia, Alfri, Syracuse.—Paste for soup. 656

52 Contessini, Gerini & Co., Leghorn.—Candied fruits. 656

53 Curry, Giacomo, Leghorn.—Preserves. 656

54 Bougleuse Bros. & Co., Leghorn.—Paste for soup. 656

55 Klein, Enrico, Leghorn.—Candied fruits. 656

56 Samoggia, Gaet. & Brothers, Bologna.—Bologna sausages and salted meats. 656

57 Lanzarini Brothers, Bologna.—Sausages and salted meats. 656

58 Colombini, Ulisse, Bologna.—Sausages and salted meats. 656

59 Serrazanetti, Giovanni Anzola, Bologna.—Tomato sauce and preserved tomatoes. 656

60 Nenzioni Brothers, Bologna.—Preserved tomatoes. 656

61 Zappoli Brothers, Bologna.—Bologna sausages and salted meats. 656

62 Grillini, Nanni & Co., Bologna.—Sausages and salted meats. 656

63 Zanetti, Guido, Bologna.—Sausages and salted meats. 656

64 Bordoni, Natale & Co., Bologna.—Sausages and salted meats. 656

65 Bassi, Medando, & Ugo Brothers, Bologna.—Sausages and salted meats. 656

66 Tacconi, Paolo, Bologna.—Sausages and salted meats. 656

67 Orsi, Raphael, Bologna.—Sausages and salted meats. 656

68 Frigieri, Giuseppe, Modena.—Hams, bologna sausages, etc. 656

69 Bellantani, Giuseppe, Modena.—Bologna sausages and salted meats. 656

70 Zironi, Giovanni, Fiorano, Modenese.—Salted meats. 656

1 Forni, Alessandro, Bologna.—Sausages and salted meats. 656

72 Molinari Brothers, Modena.—Bologna sausages. 656

73 Special Committee of Salerno.—Paste for soup. 656

74 Napoli, Francesco, Salerno.—Preserved tomatoes. 656

75 Peracchi, Enrico, Parma.—Tomato sauce. 656

76 Domenici, Annibale, Pontasserchio, Pisa.—Pork, meat, and bologna. 656

77 Frosini, Edoardo, & Brother, Ponsana, Pisa.—Paste for soup. 656

78 Gentili, Ferdinando, Pontasserchio, Pisa.—Paste for soup. 656

79 Carulli, David, Cremona.—Bologna and salted meats. 656

80 Castino, G. B., & E. Scotto, Turin.—Paste for soup. 656

81 Stiassi, Filippo, Bologna.—Mortadelle and other bologna sausages, eels. 656

82 Pinardi, Pietro, Gottolengo, Brescia.—Mustard and preserves. 656

83 Gardenghi, Enrico, Modena.—Sausages, meats, zamponi. 656

84 Greco, Marco, Bologna.—Liquors. 656

85 Tosi, Bellucci, Giacomo, Modena.—Preserves. 656

86 Luca, de, Francesco, Termini, Palermo.—Paste for soup. 656

87 Russo, Biagio, Termini, Palermo.—Paste for soup. 656

88 Cammarato, Carmelo, Palermo.—Paste for soup. 656

89 Bruno, Giuseppe, Palermo.—Preserves. 656

90 Verdone & Patera, Palermo.—Sauces and conserves. 656

91 Merlo, Vincenzo, Baron, Palermo.—Dried figs. 656

92 Sciacca della Scala, Baron, Palermo.—Dried figs. 656

93 Guli, Salvatore, Cav., Palermo.—Candied fruits. 656

94 Ferrari, Sebastiano, Rome.—Paste for soup. 656

95 Palazzo, Duke del, Catania.—Paste for soup. 656

96 Amato Brothers, Catania.—Candied fruits. 656

97 Caliri, Salvatore, Messina.
a Candied fruits. 656
b Liquors. 660

98 Botti, Alessandro, Chiavari, Genoa.
a Dried fruits. 656
b Wine. 660

99 Bornia Brothers, Treviso.
a Pickles. 656
b Vinegar. 660

100 Guglielmini, Andrea, Salerno.
a Dried fruits. 656
b Wine. 660

101 Rinaldo, Raffaele, Salerno.
a Dried fruit. 656
b Wine. 660

102 Agosti Brothers, Bagnoria, Rome.
a Dried prunes. 656
b Vermouth, wines, liquors. 660

103 Viscardi, Geremia, Bologna.
a Preserved fruits. 656
b Small biscuits. 661

104 Chamber of Commerce & Arts, Bari.
a Dried figs. 656
b Wine. 660
c Chocolate. 661

105 Simone, Raffaele, de Torre Annunziata, Naples.—Best flour paste. 657

106 Lazzaro, Salvatore, Messina.—Liquors. 660

107 Marzi Brothers, Poggibonsi, Sienna.—Wines. 660

108 Castiglioni, Domenico, Parma.—Wines. 660

109 Calegari, Giuseppe, Piacenza.—Wines and liquors. 660

110 Ghizzoni, Luigi, Piacenza.—Liquors. 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp 12-14

Wines and Liquors.

111 Clerici, Costantino, Milan.—Vermouth. 660

112 Torelli, Lenaf Luigi, Count, Milan.—Wines. 660

113 Italian Enological Committee, Turin.—Wesin and vermouth. 660

114 Ricci, Emiliano, Sienna.—Liquors. 660

115 Torricelli, Andrea, Florence.—Various liquors. 660

116 Minutillo, Giovanni, Palermo.—Liquors. 660

117 Guli, Salvatore Luigi di, Palermo.—Wines. 660

118 Giacone, Pietro, Palermo.—Marsala wines. 660

119 Martillaro, Mar. Carlo, Palermo.—Wines. 660

120 Catanzaro, Giuseppe, Termini, Palermo.—Wines. 660

121 Florio, Ignazio, & Vincenzo, Palermo.—Marsala wines. 660

122 De Nava, Giuseppe di P., Reggio, Calabria.—Wines. 660

123 Gabaldoni, Andrea Carlo, Varese Ligure, Sestri Levante.—Wines. 660

124 Enological Society of Scandiano.—Wine. 660

125 Malatesti, Augusto, Modena.—Wine. 660

126 Enological Society of Savigliano.—Wine. 660

127 Buton, G., & Co., Bologna.—Liquors. 660

128 Rossi, Leopardi Cav. Cesard, Comiso, Syracuse.—Wine. 660

129 Maltese, Felice, Mayor of Vittorio Scoglitti, Sicily.—Wines. 660

130 Greco-Cassia, Cav. Luigi, Syracuse.—Wine. 660

131 Vitale, Tommaso, Palermo.—Nespole liquor. 660

132 Albiate, Edward, Duke, Palermo.—Casks of duca. 660

133 Zeni, Niccolo, Ferrara, Rosolio.—Cordial made from cocoa. 660

134 Caretti Brothers, Rome.—Vermouth and liquors. 660

135 Strutt, Arthur I., Rome.—Wine. 660

136 Bisco, Luigi, & Co., Brescia.—Liquors. 660

137 Tarussi, Luigi, & Brothers, Leghorn.—Vermouth, wine. 660

138 Vitiello & Torrese, Torre del Greco, Naples.—Wines. 660

139 Anselmi & Marassi, Naples.—Alcohol. 660

140 Del Bono, Enrico, Syracuse.—Wine. 660

141 Giordano, Gio. Batta, Vittorio, Sicily.—Wine. 660

142 Terranova Commillesi, G. B., Vittorio, Sicily.—Wine. 660

143 Maltese, Allessandrello, Vittorio, Sicily.—Wine. 660

144 Targia, Arezzo della, Syracuse.—Liquors, curacoa. 660

145 Mezio, Calcedonio, Syracuse.—Wine. 660

146 Scuderi, Giuseppe, Catania.—Wine. 660

147 Mancini, Antonino, Catania.—Wine. 660

148 Euplio, Reina, Catania.—Wine. 660

149 Paterno, Castello di Bisiari Giuseppe, Catania.—Wine. 660

150 Contarella, Franco, Baron, Catania.—Wine. 660

151 Romeo, Michele, Catania.—Wine. 660

152 Rossi, Tedeschi Francesco, Catania.—Wine. 660

153 Mannino, Francesco, Baron, Catania.—Wine. 660

154 Crispo, Moncada Carlo, Catania.—Wine 660

155 Grasso, Carmelo, Catania.—Liquors. 660

156 Carpanetti, Luciano, Bologna.—Liquors. 660

157 Paci, Cesare, Florence.—Wine. 660

158 Liccioli, Filippo, Florence.—Wine. 660

159 Agrarian Committee for Thirty Exhibitors, Florence.—Wine. 660

160 Ottaviani Brothers, Messina.—Wines. 660

161 Salvo, Salvatore di, Giarre Moscali, Messina.—Wines. 660

162 Salvo, Salvatore de, Messina.—Wines. 660

163 Pasali, Gaetano, Fermo, & Cottignano, Ascoli Picéno.—Liquors. 660

164 Solinas, Arras Giuseppe, Sassari.—Wines. 660

165 Giacobini, Coriolano, Fano, Pesaro.—Liquors. 660

166 Leno, de Coronei, Nicolo, S. Demetrio, Corone, Calabria Citra.—Wine. 660

167 Agostini, Della Seta, Count Alfredo, Pisa.—Wine. 660

168 Lullato, G. Batta, Como.—Liquors. 660

169 Bonei Cassuccini Ottavio, Sienna.—Wine. 660

170 Zigliani, Cammillo, Bergamo.—Vinegar and essence of vinegar. 660

171 Magnaghi, Girolamo, Alexandria.—Vermouth. 660

172 Rossi, Vittorio, Asti, Alexandria.—Vermouth. 660

173 Bertea, Stefano, Alexandria.—Elixirs, wines, liquors. 660

174 Borelli, Luigi, Asti, Alexandria.—Eau-de-vie. 660

175 Metzger Brothers, Asti, Alexandria.—Beer. 660

176 Boschiero, Cav. Giovanni, Asti Alexandria.—Wines. 660

177 Mossone, Antonio, Andorne, Turin.—Liquors. 660

178 Martini, Sola, & Co., Turin.—Vermouth. 660

179 Genta, Giovanni, Turin.—Vermouth. 660

180 Poglione, Widow, & Sons, Brà Cuneo.—Wine. 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12-14

Wines, Vegetable Products, Agricultural Implements.

181 Cavallone, Giovanni, Crescentino, Novara.—Vermouth 660

182 Bellardi, Dom., & Co., Turin.—Vermouth and liquor 660

183 Cinzano, Franco, & Co., Turin.—Vermouth. 660

184 Casoni, Giuseppe, Finale, Emilia.—Liquors. 660

185 Napoli, Giuseppe, Baronissi, Salerno.—Wine. 660

186 Palmieri, Benedetto of Gius., Salerno.—Wine. 660

187 Lanzara, Raffaello, Salerno.—Wine. 660

188 Murino, Nicola, Salerno.—Wine. 660

189 Agnini, Tommaso, Finale, Emilia.—Liquors. 660

190 Bellosi, Gio. Batto, Scandiano, Emilia.—Liquor 660

191 Musi, Luigi, Bologna.—Liquors. 660

192 Savorini, Francesco, S. Ionn Pasiato, Bologna.—Liquors. 660

193 Ronzani, Camillo, Bologna.—Beer. 660

194 Tucci, Savo Benedetto, Rome.—Wine. 660

195 Jacobini Brothers, Rome—Wine. 660

196 Rospigliosi Clemente, Prince, Rome.—Wine. 660

197 Stella, Cav. Musio, Syracuse.—Wine. 660

198 Reggio, Arangio Francesco, Augusta, Sicily.—Liquors 660

199 Salibra, Antonino, Syracuse.—Wine and liquor 660

200 Bonanno, Michele, Baron, Syracuse.—Wine. 660

201 Maltese, Felice Vittorio, Sicily.—Wine. 660

202 Cassale Brotners, Syracuse.—Wine and liquors 660

203 Melfi, G. B., S. Antonino, Baron, Chiaramonte, Syracuse.—Wine. 660

204 Lanza, Cav. Salvatore, Syracuse.—Wine. 660

205 Adorno Puma, Cav. Gaet., Syracuse.—Wine. 660

206 Bruschetti, C. Vincenso, Camerino, Maurata.—Wine 660

207 Piombino, Prince of, Foligno, Umbria.—Wine. 660

208 Farinola, M. Paolo, Florence.—Wine. 660

209 Albergotti, Geo., & Agostino Bros., Arezzo.—Wine. 660

210 Uffredugi, Giacomo, Perugia, Umbria.—Wine. 660

211 Rospigliosi, Clemente, Prince, Lampovecchio, Florence.—Wine. 660

212 Galimberti, Giuseppe, Milan.—Liquors and vermouth 660

213 Marini & Poggi, Milan.—Liquors, stomachic and febrituge elixirs. 660

214 Zannini & Galliani, Milan.—Liquors and extract of tamarind. 660

215 Isolatelli & Co., Milan.—Vermouth and liquors. 660

216 Cordini, Gaetano, & Brivio, Busto Arsizio, Milan.—Vermouth and liquors. 660

217 Branca Brothers & Co., Milan.—Vermouth, liquors, alcohol. 660

218 Facheris, Enrico, Lodi, Milan.—Wines and vinegar. 660

219 Vittone, Domenico, Milan.—Vermouth and liquors. 660

220 Ricasoli, Bettino, Baron, Florence.—Wines. 660

221 Montini, Pasquale, Fabriano, Ancona.—Vermouth and liquors. 660

222 Brenna, Santo, Como.—Liquors. 660

223 Nistri, Ferdinando, Florence.—Liquors. 660

224 Mostardini, Adolfo, Florence.—Liquors. 660

225 Cita, Francesco, & Co., Naples.—Liquors. 660

226 Marini, Ambrogio, Milan.—Liquors. 660

227 Scala, Giuseppe, Naples.—Wines. 660

228 Galloni, Luigi, Rome.—Wines. 660

229 Evoli, Ma. Giovanni, Rome.—Liquor. 660

230 Scala Pasquale, Naples.—Wine. 660

231 Francica Brothers, Naples.—Wine. 660

232 Barra, Luigi, Naples.—Wine. 660

233 Patalano, Orazio, Ischia Island, Naples.—Wine. 660

234 Masetti, Piero Pompeo, Count, Florence.—Wine. 660

235 Siccoli, Guido, Florence.—Wine. 660

236 Fantozzi, Cesare, Foligno, Umbria.—Liquors. 660

237 Burchi, Serafino, Pisa.
a Liquors. 660
b Candies. 661

238 Viliani, Dante, Pistoga.
a Liquors. 660
b Cakes, small biscuits. 661

239 Tamburini, Gaetano, Bologna.—Torrone and candies. 661

240 Cantelli, Giuseppe, Casapulla, Caserta.—Torrone. 661

241 Cerri, Luigi, Cremona.—Torrone with almonds. 661

242 Pirrone, Antonino, Messina.—Sea biscuits. 661

243 Andronico, Giuseppe, Nice, Messina.—Biscuits and paste for sea. 661

244 Loreti, Gioacchimo, Rome.—Candy, cakes, and chocolate. 661

245 Moriondo & Gariglio, Turin.—Chocolate and confectionery. 661

246 Pagni, Faustino, & Co., Pontedera, Pisa.—Biscuits, English style. 661

Textile Substances of Vegetable or Animal Origin.

247 Facchini, Pietro F., & Co., Bologna.—Raw and combed hemp. 666

247*a* Kluftinger, L., Bologna.—Raw and combed hemp. 666

For classes of exhibits indicated by numbers at end of entries, see Classification, pp. 12–14.

Agricultural Implements and Engineering.

Machines, Implements, and Processes of Manufacture.

248 Cagliesi, Raffaele, Ancona.—Plow. 607

249 Tomaselli, Giacomo, Cremona.—Plows. 670

250 Toroiatti, Luigi di Gio., Venice.—Harrow. 670

251 Porri, Luigi, Pisa.—Plow-share. 670

252 Rossi, Ercole, Parma.—Plow. 670

253 Calzoni, Alessandro, Bologna.—Agricultural machine. 670

254 Gattola, Nicola, Bari.—Plow. 670

255 Biggi, Giovanni, & Co., Piacenza.—Hand reaping machine. 672

256 Uliengo, Giovanni, Biella, Novara.—Butter machine. 675

Agricultural Engineering and Administration.

257 Filopanti, Quirico, Bologna.—Plan of General Garibaldi's system of irrigation relating to the River Tiber. 682

258 Tramontani, D., Bologna.—Beehive. 683

Collective Exhibit.

259 Special Committee of Messina.—Samples of Sicilian products for exportation.

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12-14.

BRAZIL.

West of Nave, Columns 6 to 10.

Forest and Agricultural Products.

Arboriculture and Forest Products.

1 Leao, Hermelino de.—Coal obtained from pine heart. 600

2 Muricy, Dr.—Pine heart. 600

3 Araujo & Silva.—Samples of woods. 600

4 Juparana, Baron of.—Samples of woods. 600

5 Faria, Souza.—Samples of woods. 600

6 Villa-Franca, Baron of.—Samples of woods. 600

7 Provincial Commission of S. Paulo.—Samples of woods. 600

8 Cavalcanti.—Samples of woods from Alagoas. 600

9 Province of Rio de Janeiro.—Samples of woods. 600

10 Castro, Borja.—Samples of woods used at the custom-house dock works, Rio de Janeiro. 600

11 Penitentiary, Rio de Janeiro.—Showcases made of Brazilian woods. 600

12 Couceiro.—Samples of woods in mosaic. 600

13 Barbosa, F.—Samples of woods. 600

14 Muricy & Leao, Drs.—Samples of woods from Parana. 600

16 Province of Bahia.—Samples of woods and medicinal leaves. 600

17 Leite, Severino.—Ticus leaves. 600

18 Silva, Domingos.—Samples of woods from Macahé. 600

19 Province of Parana.—Lumber and timber. 600

20 Bueno, Pimenta.—Samples of woods from Para. 600

21 Rocha, Ignacio da.—Pine lumber from Parana. 600

22 Province of Goyaz.
a Paparo or paper tree and samples of wood. 600
b Resins. 603

23 Colony Itajahy.—Samples of woods for construction and furniture. 600

24 Barbosa, J. F.—Samples of woods. 600

25 Gama, Azarias.—Cipó-páo (wood). 601

26 Municipality of S. Francisco.—Ornamental woods. 601

27 Municipality of S. José.—Ornamental woods. 601

28 Oliveira P. M. de.—Cumaté (dyeing wood). 602

29 Province of Ceará.
a Dyeing wood. 602
b Resins and gum. 603
c Berries of mamona. 605

30 Perdigao.—Resins. 603

31 Province of Para.
a Resins and caoutchouc. 603
b Nuts. 605

32 Province of St. Catharina.
a Samples of woods. 600
b Resins. 603

33 Province of Amazonas.
a Samples of woods. 600
b Samples of indigo. 602
c Isca-de-tracoa, made by ants, and caoutchouc. 603
d Seeds. 605

34 Province of Alagoas.
a Samples of woods. 600
b Gums and resins. 603

35 Province of Ceara.—Resins and caoutchouc. 603

36 Costa, Gaudencio da.—Caoutchouc from Para. 603

37 Province of Pernambuco.
a Woods. 600
b Dyeing wood. 602
c Gums. 603
d Nuts. 605

38 Province of Rio-Grande-do-Norte.—Wax-dust, resins, gum, and caoutchouc. 603

39 Province of Minas-Geraes.—Resins. 603

40 Araujo, Castro.—Wax on the branch. 603

41 Sarafana, Felix.—Wax on the branch. 603

42 Rebello, Dr.—Dyeing barks. 603

43 Andrade, Ildefonso de.—Barks. 603

44 Martins, J. A.—Barks and leaves of the Eucalyptus giganteus. 603

45 Sardinha.—Resins. 603

46 Silva, T. R. da.—Resins. 603

47 District of Principe.—Resins. 603

48 Portugal, F. P. d'Azevedo.—Balsams. 603

49 District of Que[illegible]aguelo.—Resins. 603

50 Commission for Acari.—Resins. 603

51 Paes-Leme, Rosalina.—Linseed. 605

Agricultural Products.

52 Scheffer, Melchior.—Barley in ear and threshed. 620

53 Martins, Ant.—Barley. 620

54 Schamalake.—Barley. 620

55 Richter, Frederico.
a Cereals. 620
b Mustards and tobacco. 623

For classes of exhibits, indicated by numbers at end of entrses, see Classification, pp 12-14.

Agricultural Products.

56 Leao, Hermelino de.
a Rye, wheat, oats, linseed, and maize. 620
b Beans. 621
c Seeds. 624

57 N——. N——.
a Maize on the cob; carnauba straw. 620
b Tea from S. Paulo; coffee from Bahia. 623

58 Province of Parana.
a Wheat and rye. 620
b Medicinal plants. 621
c Manioc tubers. 622
d Matte, a substitute for tea; coffee, tobacco, cigarettes. 623

59 District of Lages.—Cereals. 620

60 Colony Santa-Maria da Soledade.
a Rye, oats, and barley. 620
b Seeds and linseed. 624

61 Commission General for the National Exhibitions.
a Rice, corn, and barley. 620
b Medicinal plants. 621
c Spices, coffee, mattè. 623
d Seeds. 624

62 Sampaio. J. M. Leite.—Unhulled rice. 620

63 Gomes, Cordeiro.—Unhulled rice. 620

64 Mello, J. C. de.—Rice. 620

65 Mendes, Olinte.—Corn. 620

66 Carvalho, B. Rocha.—Rice. 620

67 Souza, Bento de.—Wheat. 620

68 Valle, R. J. Ferreira.—Unhulled rice. 620

69 Municipality of Lage.—Wheat. 620

70 District of Quebranguelo.—Beans and guandu. 621

71 District of Votuverava.—Medicinal plants. 621

72 Correa, Laurenço.—Medicinal plants. 621

73 Freitas, G. de Sz.—Medicinal plants. 621

74 Araujo, A. J. Roiz d'.—Medicinal plants. 621

75 Araujo, J. P. de Souza.—Medicinal plants. 621

76 Piratininga, L. Tebiriçá.—Medicinal plants. 621

77 Foggia, Z. M.—Medicinal plants. 621

78 Barbòsa, Norbèrto.—Medicinal plants. 621

79 Guimaráes, J. F.—Medicinal plants. 621

80 Dias, C. Falcao.—Medicinal plants. 621

81 Barros, Dr. J. J. d'Albuquerque—Medicinal plants. 621

82 Athayde, M. E. de Sz.—Almacega (Icica-Icicariba). 621

83 Philippe, A.—Tears of the Virgin (medicinal plant). 621

84 Perdigao.
a Mediurnal plants. 621
b Bacury seeds. 624

85 Province of Ceara.
a Medicinal plants and beans. 621
b Coffee. 623

86 Province of Goyaz.
a Medicinal plants. 621
b Tobacco. 623

87 Muricy & Leao.
a Beans. 621
b Seeds. 624

88 Leao, Ermelindo de.
a Beans. 621
b Ginger and snuff. 624

89 Province of Para.
a Barley. 620
b Cocoa, ginger, and tobacco. 623

90 Province of Alagoas.
a Medicinal plants. 621
b Vanilla and other seeds. 624

91 Province of S. Paulo.
a Medicinal roots. 621
b Chocolate. 623

92 Araujo, Rodrigues de.—Medicinal plants. 622

93 Moura, Ferreira de.—Potatoes. 622

94 Dr. Muricy.
a Sweet flag. 622
b Spices and tobacco. 623
c Seeds. 624

95 Brant, J. F. d'Andrade.—Manioc roots. 622

96 Heredia, Sa, Dr.—Heredia root. 622

97 Municipality of Cametà.—Cocoa. 623

98 Triste, J. M. d'Araujo.—Cloves of India. 623

99 Portella, F. Fernandes.—Vanilla. 623

100 Guimaraes, M. A., & Pedrozo, H.—Vanilla aromatica. 623

101 Padua, A. de.—Vanilla.

102 Silva & Sons.—Cocoa. 623

103 Pinho, L. F. do.—Chocolate. 623

104 Lima, Dias.—Chocolate. 623

105 Ribeiro, J. A. F.—Chocolate. 623

106 Liborio & Ferreira.—Chocolate. 623

108 Province of Sergipe.—Coffee. 623

109 Province of Parahyba do Nórte.—Coffee. 623

110 Presidency of Sancta Catharina.—Coffee. 623

111 Falcao, J. J. Franco.—Coffee. 623

112 Albuquerque, A. de Sa.—Coffee. 623

113 Lacerda, A. F. de.—Coffee. 623

114 Breves, J. J. de Sz.—Coffee. 623

115 Còsta, P. M.—Coffee. 623

116 Silva, C. J., & Sons.—Coffee. 623

117 Carrao, Councillor.—Coffee and tea. 623

118 Montenegro, Commander.—Coffee from Nova-Louzan. 623

119 Atibaia, Baron of.—Coffee. 623

120 Tavares, J. Pinto—Coffee from Parahyba-do-Sul. 623

121 Monteiro, P. J.—Coffee from Rio de Janeiro 623

122 Portella, J. T. M.—Coffee from Muribeca. 623

123 Bornaud, L.—Coffee from Caravellas. 623

124 Magalhaes, F. L. d'Almeida.—Coffee from Triumpho. 623

125 Fernandez, C. J.—Coffee from Maragogipe. 623

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12-14.

Agricultural Products.

126 Belens, J. L.—Coffee. 623
127 Reines, N. A. Claudio.—Coffee from Monte Verum 623
128 Cunha, J. J.. Alves da.—Coffee from Rio de Janeiro 623
129 Valein, M. d'Aguiar.—Coffee from Bananal. 623
130 Vergueiro, L.—Coffee from Ipicaba. 623
131 Siqueira, M. B. de.—Coffee and tobacco from Goyaz 623
132 Nogueira, Dr. P. R.—Coffee from S. Paulo. 623
133 Barros. L. A. de Sz.—Coffee from S. Paulo. 623
134 Krull, Frederika.—Coffee from S. Paulo. 623
135 Province of Govaz.—Tobacco and cigarettes. 623
136 Colony of Assunguv.—Tobacco leaves. 623
137 Presidency of the Province of Bahia.—Cigars. 623
138 Pereira & Braga, Cigar Manufactory.—Cigars. 623
139 Paes-Leme, Rosalina V.
a Cigars and tobacco from the Colony Blumenau. 623
b Matte from St. Catharina. 623
140 S. Joao de Nictherav, Manufactory of.—Cigars and cigarettes. 623
141 Moreira, Dr. d'Assis C.—Tobacco from Codó. 623
142 Queiróz & Sons —Tobacco from S. Paulo. 623
143 Levy, Salamon.—Snuff from Tette. 623
144 Schild, Joao. — Cigars from the Colony Sancta-Cruz 623
145 Herbst, Augusto.—Twist tobacco from the Colony Blumenau. 623
146 Rosenstock, G.—Tobacco from the Colony Joinvill. 624
147 Kopsch, Ch.—Tobacco from the Colony Blumenau. 623
148 Merck, Maxim —Tobacco from the Colony Blumenau. 623
149 Vander-Berg.—Tobacco leaves from the ex-Colony Sancta-Cruz. 623
150 Seidler, C.—Leaf tobacco. 623
151 Kalden, Baron of.—Leaf tobacco from the Colony Sancto-Angelo. 623
152 Ketterman, V.—Leaf tobacco from the Colony Sancto-Angelo 623
153 Dietrich, A.—Leaf tobacco from the Colony Joinville 623
154 Faria, B. de.—Tobacco from Bahia. 623
155 Grava, Fr. L. Sa.—Tobacco from Cachocira. 628
156 Aranha, J. D.—Tobacco and cigarettes. 623
157 Ferreira, E. A.—Cigarettes. 623
158 Ferreira, Candido I.—Cigars from Cachocira. 623
159 Paraiso, D. V.—Carolina tobacco. 623
160 Cerqueira & Co.—Snuff, cigars, and cigarettes. 623
161 Mendouca, M. J.—Tobacco from Goyaz. 623
162 Pinheiro, J. E.—Tobacco from Pará. 623
163 Jardim, J. R. de Moraes.—Tobacco from Goyaz. 623
164 Menezes, Rev. M. de.—Tobacco. 623
165 Nascimento, Rev. A. F.—Tobacco. 623
166 Panitz, J. C.—Tobacco from S. Leopoldo. 623
167 Senna, N. B. de.—Tobacco from Mucury. 623
168 Santos, M. A. dos.—Tobacco. 623
169 Silva, A. Ignacio da.—Rolled tobacco. 623
170 Constantino, J.—Tobacco from Balpuedy. 623
171 Souza, M. L. de.—Cigarettes from Parana. 623
172 Ribas, J. L. Sá.—Twist tobacco. 623
173 Cokin, E.—Twist tobacco. 623
174 Gonsalves, J. P.—Cigars. 623
175 Gama, T. J. de Sz.—Cigars. 623
176 Abreu, J. Monteiro d'.—Cigars. 623
177 Borba, N. M.—Cigarettes. 623
178 Miranda, J. B. de.—Cigarettes. 623
179 Perneta, F. D.—Cigarettes. 623
180 Ribas, A. L. d'Andrade.—Cigarettes and matte. 623
181 Ramos, L. F.—Cigarettes. 623
182 Lepage, J.
a Cigarettes. 623
b Seeds. 624
183 Miranda-Russo, F. A.—Tea from S. Paulo. 623
184 Rego-Freitas, A. P. de.—Tea from S. Paulo. 623
185 Neves, J. Ribeiro.—Tea from S. Paulo. 623
186 França, F. A. Galvao da.—Tea from S. Paulo. 623
187 Xavier, J. Ribeiro.—Tea from S. Paulo. 623
188 Mosqueira, A. L. M.—Tea from Minas-Geraes. 623
189 Correa, Ildelfonso.—Matte. 623
190 Province of Minas-Geraes.—Matte 623
191 Leao, Major V. F. de.—Matte in leaves, dried, and powdered. 623
192 Pacheco, D. dos Santos.—Matte leaves. 623
193 Braga, J. M. da Silva.—Matte leaves. 623
194 Torres, G. d'A.—Matte. 623
195 Bley, J.—Matte. 623
196 Xavier, A. de Paula.—Matte. 623
197 Torres, M. d'A.—Matte. 623
198 Cercal, M. d'Oliveira.—Matte in leaves. 623
199 Portugal, P. P. d'Azevedo.—Matte. 623
200 Sepper, H.—Matte. 623
201 Cortez, P. de Siqueira.—Matte. 623

For classes of exhibits indicated by numbers at end of entries, see Classification, pp. 12-14.

Agricultural Products, Land Animals.

202 Macedo, Tiburcio de.—Matte. 623
203 Diarson, J.—Matte. 623
204 Souza, Bento de.—Matte. 623
205 Constanca, Maria, & Sons.—Coffee and cocoa. 623
206 Correa, Pereira.—Matte. 623
207 Luz, Ferreira de.—Matte. 623
208 Camargos, Baron de.—Tea and coffee. 623
209 Province of Sancta Catharina.—Coffee. 623
210 Guimaraes, Ant.—Coffee from La Guayrá. 623
211 Friburgo & Sons.—Coffee. 623
212 Nobrega, J.—Coffee from Boa Esperanca. 623
213 Munhoz, Caetano.—Matte. 623
214 Ayrosa, M. A.—Coffee. 623
215 Rocha-Leao, M. da.—Coffee. 623
216 Costa-Pereira, A. B. da.—Coffee from Piedade. 623
217 Gama, P. N. Nogueira da.—Coffee from Concordia. 623
218 Juparana, Baron of.—Coffee from Sta. Monica. 623
219 Rio-Novo, Viscountess of.—Coffee from Uniao. 623
220 Pripodi, Silvino.—Coffee. 623
221 Jardien, Gomes de.—Coffee. 623
222 Bella-Vista, Baron of.—Coffee. 623
223 Machado, Marcondes.—Coffee. 623
224 Vieira, Ant.—Coffee. 623
225 Magalhaes, Almeida.—Coffee. 623
226 Barros, Teixeira da.—Coffee. 623
227 Lima, Freitas.—Coffee. 623
228 Jordao, Miranda.—Coffee. 623
229 Costa, Maria da.—Coffee. 623
230 Camargo, Pompen de.—Coffee from Campinas. 623
231 Nogueira, Almeida.—Coffee from Campinas. 623
232 Jordao, R.—Coffee. 623
233 Vergueiro & Co.—Coffee. 623
234 Barros, Souza.—Coffee from S. Paulo. 623
235 Camargo, Santos.—Coffee and tobacco. 623
236 Amaral, Thereza do.—Coffee from Campinas. 623
237 Amaral, Francisco do.—Coffee from Campinas. 623
238 Nogueira, Ramos.—Coffee from S. Paulo. 623
239 Gaviao, Bernardo.—Coffee from S. Paulo. 623
240 Souza, Paula.—Coffee from S. Paulo. 623
241 Barros, Raphael de.—Coffee from S. Paulo. 623
242 C——, A. M.—Coffee from Iguape. 623
243 Jordao, Silverio.—Coffee. 623
244 Araraguara, Baron de.—Coffee. 623
245 Tavares, Pinto.—Coffee. 623
246 Souza-Gueiroz, Baron de.—Coffee from S. Paulo. 623
247 Commission for the Province of St. Catharina.—Coffee. 623
248 Santos, Corneno dos.—Coffees. 623
249 Prados, Viscount of.—Coffee from Minas-Geraes. 623
250 Assiz, Ferreira d'.—Coffee from Minas-Geraes. 623
251 Ribeiro, Silva.—Coffee from Minas-Geraes. 623
252 Alves, Assiz.—Coffee from Minas-Geraes. 623
253 Freire, Manuel.—Coffee from S. Paulo. 623
254 Carvalho, Zacharias de.—Coffee from Sergipe. 623
255 Freire & Bros.—Coffee. 623
256 Breve, Souza.—Coffee. 623
257 Jaguary, viscount of.
a Coffee. 623
b Seeds. 624
258 Rocha-Ferreira, D. da.—Tobacco. 623
259 Parana, D. V.—Tobacco. 623
260 Commission for the Province of Maranhao.—Coffee and tobacco. 623
261 Colony of Blumenau.—Tobacco and cigars. 623
262 Colony of Itajahy.—Twisted tobacco and mate. 623
263 Figueredo, Pinto de.—Twisted tobacco. 623
264 Province of Amazonas.
a Medicinal plants. 621
b Cloves and tobacco. 623
265 Veiga.—Tobacco from Rio de Janeiro. 623
266 Oliveira, Coelho d'.—Tobacco from Minas-Geraes. 623
267 Province of Matto Grosso.—Tobacco and cigars. 623
268 Province of Rio-Grande-do-Sul.—Tobacco in leaf, and mate dust. 623
269 Pinto & Bro.—Leaf tobacco. 623
270 Testa, Umbellino.—Tobacco and coffee from Bahia. 623
271 Souza, Vasconcellos de.—Tobacco from Bahia. 623
272 Viotti.—Cigarettes. 623
273 Paulo Cordeiro, J.—Snuff. 623
275 Rocha, Correa da.—Snuff. 623
276 Novaes, Sonza.—Cigarettes. 623
277 Province of Bahia.—Cigars. 623
278 Agner, Luiz.—Matte. 623
279 Martins, Luiz.—Tea. 623
280 Rodovalho, P.—Matte. 623
281 Fluminense Agriculture Institute.—Tea made from coffee-leaves. 623
282 Central Exportation Co.—Matte. 623

Land Animals.

284 Moreira, Dr. Nicoláu J.—Butterfly, "Porta Espelhos" (*Attacus aurota Lepidopterous*).
285 Rezende, Luiz de.—Silkworms and moths.
286 Wirmond, Ernesto E.—Collection of insects.

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Animal and Vegetable Products.

Water Animals, Fish Culture, and Apparatus.

287 Province of Parana.—Isinglass. 646

Animal and Vegetable Products.

288 Province of Matto-Grosso.
a Quinine. 650
b Hides and furs. 652

289 Agricultural Institute.
a Sage. 650
b Flour. 657
c Arrowroot. 658

290 Province of Allagoas.
a Indigo-plant and vegetable dyes; caroba, quinine, etc. 650
b Hides and furs. 652
c Vegetable milk. 656

291 Province of S. Paulo.
a Camomile. 650
b Hides and leather. 652
c Liquors, aguardente, etc. 660
d Chocolate. 661

292 Commission General for the International Exhibitions, Rio de Janeiro.
a Turtle butter and cheese. 651
b Skins, hides, and leather. 652
c Wax. 654
d Preserved beef and tongues. 656
e Sugar. 659
f Wines and liquors. 660
g Vegetable oils. 662

293 Juliano, Fr.—Cheese. 651

294 Carneiro, B. Rodriguez.—Cheese. 651

295 Ubatuba, Dr.
a Condensed milk. 651
b Extract of mint. 656

296 Cabral, J. F. D.—Milk of Mangabeira. 651

297 Moraes Rozeira, M. G. de.—Cheese. 651

298 Leao, Dr. A. E.—Cheese. 651

299 Director of Paranàpanema.—Butter. 651

299*a* Oliveira, Ignacio de.—Glue. 652

300 District of Principe.
a Skins and hides. 652
b Wax. 654

301 Andrade, J. C. Paes de.—Glue. 652

302 Ubatuba, D. M. P. S.—Tallow, lard, and oil. 652

303 Maciel, D. F.—Steer skins. 652

304 Cortez, P.—Steer hide. 652

305 Botelho, A. C. A.—Skin of a Boa aquatica. 652

306 Athayde, M. E. S.—Skins. 652

307 Feydel Son, I.—Tanned and raw hides. 652

308 Andrade, I. J.—Hides and skins. 652

309 Costa Eymoel & Co.—Hides, leather, and soles. 652

310 Klippel & Brother.—Hides and soles. 652

311 Perneta.—Stag-horns. 652

312 Colony of Blumenau.—Various products. 652

313 Province of Amazonas.—Hides and furs. 652

314 Province of Goyaz.—Hides, furs, and leather. 652

315 Province of Ceara.
a Hides and furs. 652
b Dried beef. 656
c Confectionery. 661

316 Province of Rio Grande do Sul.
a Leather. 652
b Preserved tongue and beef. 656

317 Province of Rio Grande do Norte.
a Oil and tallow. 652
b Powdered honey-wax. 654

318 Province of Parana.
a Hides, furs, and ox-horns. 652
b Wax. 654
c Manioc flour and fecula. 657
d Aguardente from sugar-cane, and liquor from maté herb and quince. 660

319 Long & Co.—Wax. 654

320 Miro, D. Maria.—Wax. 654

321 Safarana, A. T.—Beeswax and wax candles. 654

322 Province of Goyaz.—Beeswax. 654

323 Araujo, J. Pereira de Sz.—Yellow wax. 654

324 Araujo, J. A. Vieira.—Honey. 654

325 Xavier, A. de Paula.—Honey. 654

326 Xavier, D. Leocadia de P.—Wax. 654

327 Mendes, J. Olinto.—Honey and wax. 654

328 Macedo & Azeredo.—Wax. 654

329 Province of Ceará.—Sun-dried beef and confectionery. 656

330 Canoza, Rosalina R. Botelha.—Preserved vegetables. 656

331 Vasconcellos, F. P. de.—Preserved vegetables. 656

332 Castro, M. José de.—Sweetmeats. 656

333 Silva, Leal, & Santos.—Preserves. 656

334 Guttier & Wagner.—Preserved fruits. 656

335 Province of Para.—Preserved meats. 656

336 Santos & Ferreira.—Preserved vegetables, marmalade, and fruit-butter. 656

337 Province of Maranhao.
a Rice. 656
b Vegetable oils. 662

338 Province of Pernambuco.
a Dried fruits. 656
b Manioc and arrow-root flour. 657
c Sugar. 659
d Aguardente from sugar-cane. 660
e Cocoa oil. 662

339 Tamancao Factory.—Crushed rice. 657

340 Schimmelpfung, A.—Rye flour. 657

341 Dezincourt.—Arrowroot flour. 657

342 Alvarenga, Dr.
a Flour. 657
b Tapioca. 658

343 Leao, Hermelindo de.—Rice. 657

344 Murucy, Dr.—Maize and rye-flour. 657

345 Directory Board of the Colony of Angelina.—Corn-flour from the colony. 657

346 Silva, Carneiro da.—Manioc-flour. 657

347 Tripodi, Silvino.—Rice. 657

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Animal and Vegetable Products.

348 Cordeiro, jr.—Rice on the branch. 657

349 Tarranbae, J.—Arrowroot flour. 657

350 Carvalho, Lima.—Manioc and orris-root flour. 657

351 Province of Sancta Catharina.—Flour, rice, and arrowroot flour. 657

352 Guimaraes, Antonio.
a Rice. 657
b Aguardente from sugar-cane, orange, etc. 660

353 N—— N——.
a Rice. 657
b Farinas. 658
c Vinegar. 660

354 Silva, M. C., & Sons.—Tapioca. 657

355 Pereira, J. J.—Farina of manioc. 657

356 Colony of Angelina.—Wheat flour. 657

357 Silva, J. J. Correa da.—Farina of manioc and tapioca. 657

358 Province of Parana.
a Feculas. 657
b Matté liquor. 660

359 Province of Pernambuco.—Manioc and arrowroot flour. 657

360 Leao & Alves Grist Mill.—Wheat flour. 657

361 Pirapitinga, Baron of.—Polvilho (a starch). 658

362 Province of Sancta Catharina.—Polvilho (a starch). 658

363 Fleminense Agricultural Institute.—Polvilho (a starch). 658

364 Pirapitinga, Baron of.—Tapioca and orris-root. 658

365 Constanca, Maria, & Sons.—Tapioca and orris-root. 658

366 Pinheiro, Thomaz.—Sugar. 659

367 Carvalho & Oliveira.—Syrup of ipecac. 659

368 Diaz, Isidoro.—Sugar and syrup. 659

369 Maua, Viscount of.—Refined sugar. 659

370 Dezincourt.—Crystallized sugar. 659

371 Barros, Bernardino de.—Brown and white sugar. 659

372 Barros, Fernandes de.—Sugar. 659

373 Costa & Co.—Refined sugar. 659

374 Costa, Ribeiro de.—Sugar 659

375 Souza, Alves de.—Sugar. 659

376 Vianna, Paula.—Sugar. 559

377 Boa-Viagem, Baron of.—Sugar. 659

378 Wanderley, Barros.—Sugar. 659

379 Villa-Franca, Baron de.—Sugar. 659

380 Leao, Souza.—Sugar. 659

381 Virgens, Bernardo da.—Sugar. 659

382 Bastos, Rodriguez.—Sugar. 659

383 Braga & Co.
a Syrups. 659
b Liquors; aguardente, cognac, etc. 660

384 Province of Bahia.
a Refined sugar. 659
b Chocolate of musgo. 661

385 Barroso, Paula.
a Sugar. 659
b Aguardente from sugar-cane. 660

386 Castro, Ribeiro de.
a Sugar. 659
b Brandy from sugar-cane. 660

387 Virgens, M. B. das.—Sugar. 659

388 Mansell, Carré, & Co.—Sugar. 659

389 Braga & Co.—Syrups. 659

390 Colony of Iatahy.—Sugar-cane brandy. 660

391 Braga & Brother.—Brandy, liquors, and alcohol. 660

392 Vellez Perdigao, D.—Alcoholic drinks and pineapple vinegar. 660

393 Freyung, Otto.—Liquors. 660

394 Belache.—Liquors. 660

395 Bella Vista, Baron of.—Sugar-cane brandy and orange liquor. 660

396 Amaral Raposo, J. do.—Liquors. 660

397 Carreira, F. L.—Wines and brandies. 660

398 Carneiro, F. Lucas.—Pao wine. 660

399 Bastos & Camacho.—Liquors and cordials. 660

400 Teixeira, A. de A.—Tonic liquors. 660

401 Boully, José.—Pao wine. 660

402 Votuvera Commission.—Pao wine. 660

403 Silva, J. H. da.—Brandy and wines. 660

404 Falcao, Paulino P.—Sugar-cane brandy. 660

405 Souza, M. I. M. de.—Brandy and Laranginha. 660

406 Mendes, J. Olinto.—Liquor. 660

407 Menezes, B. A. de.—Quince liquor. 660

408 Xavier, A. P.—Honey wine, alcohol, and brandy. 660

409 Castelnuova, T.—Absinthe. 660

410 Moraes Rozeira, M. G. de.—Wines. 660

411 Vasconcellos, Francisco P. de.—Orange wine and alcoholic drinks. 660

412 Marizon, F. M. Celli de.—Laraginha. 660

413 Araujo, Ignacio de.—Liquors. 660

414 Oliveira, Roiz de.—Liquors. 660

415 Carvalho, Leitao de.—Laranginha and gin. 600

416 Falcao, Piris.—Aguardente. 660

417 Raposo, Amaral.—Wines and liquors. 600

418 Pinto, Oliveira.—Aguardente from sugar-cane and caju wine. 660

419 Azevedo, Pereira de.—Aguardente. 660

420 Carvalho, M. de.—Gin. 660

421 Jeremoabo, T.—Aguardente from honey. 660

422 Schulmann & Co.—Wine and vinegar from sugar-cane. 660

423 Pimenta, Mattos.—Hesperidina-Yaguarembo'. 660

424 Oliveira, C., & Sons.—Wine and aguardente from sugar-cane; vinegar from pine apple. 660

425 Frey, Otto.—Liquors. 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12-14.

Animal and Vegetable Products, Textile Substances.

426 Vasconcellos, P. de.—Orange wine. 660
427 Cattermolle, Erdman.—Wines and liquors. 660
428 Alves & Co.—Liquors. 660
429 Barroso, Carvallo.—Alcohol. 660
430 Silveira, N.—Aguardente. 660
431 Pinheiro, Thomaz.—Laranginha. 660
432 Caipora, Guimaraes.—Laranginha. 660
433 Bella-Vista, Baron of.—Aguardente. 660
434 Province of Para.—Guarana. 660
435 Pereira, Estevao.—Laranginha, aguardente from sugar-cane. 660
436 Itabapoana, Baron de.—Laranginha. 660
437 Silva, Carneiro da.—Laranginha. 660
438 Rebello, Silva.—Liquor from coffee and other plants. 660
439 Mamede.—Caju wine for medicinal purposes 660
440 Macedo, J. de.—Liquors. 660
441 Le Page.—Wines and Vinegar. 660
442 Viotti.—Peach liquor. 660
443 Vianna, Oliveira.—Aguardente. 660
444 Biagem, Boa, Baron da.—Aguardente. 660
445 Sardinha.—Wine. 660
446 Pinho, Francisco do.—Chocolate. 661
447 Leao, Hermelino de.—Farina biscuit 661
448 Murici, Dr. Leao, Ermelindo de.—Tapioca biscuits. 661
449 Silva, Leal, & Santos.—Vermicelli. 661
450 Province of Bahia.—Musgo chocolate. 656
451 Pinho, Francisco do.—Chocolate. 656
452 Dias, J. D.—Vegetable oils. 662
453 Cohin, Eliezer.—Oil of copahiba. 662
454 Cavalcante, J. B.—Oil of andiroba. 662
455 Barbósa, J. E. C.—Oil of batiputa. 662
456 Braga, J. F. C.—Oil of copahiba. 662
457 Veiga, J. A. da.—Oil of togo. 662
458 Silva, T. R. da.—Cocoanut oil. 662
459 Jorge, M. F. A.—Cocoanut oil. 662
460 Stechel, Frederico.—Oils. 662
461 Barreto, Jr.—Oils of copahiba, andiroba, etc. 662
462 Falcao, Dias C.—Oils. 662
463 Ferreira Valle, R. J.—Cocoanut oil. 662
464 Vyeira, M. L.—Cocoanut oil. 662
465 Vyeira, S. A.—Andiroba oil. 662
466 Province of Maranhao.—Oil of anaja. 662
467 District of Paulo Affonso.—Cajunut oil. 662
468 Province of Ceará.—Oils. 662
469 Presidency of the Province of Bahia.—Ricinus and cocoanut oil. 662
470 Perdigao.—Vegetable oils. 662

Textile Substances of Vegetable or Animal Origin.

471 Mello, Correio de.—Brown cotton. 665
472 Hayer, Martin.—Cotton. 665
473 Moreira, Collares.—Cotton from Maranhao. 665
474 Province of Ceara.—Cotton. 665
475 Province of Matto Grosso.—Guinea cotton. 665
476 Province of Parahyba.—Cotton. 665
477 Province of Rio Grande do Norte.—Cotton. 665
478 C——, J. T. A.—Cotton from S. Paulo. 665
479 Barros, Souza.—Cotton from S. Paulo. 665
480 Maylasky.—Cotton from Soracaba. 665
481 B——, A. A.—Cotton from S. Paulo. 665
482 A——, J. C.—Cotton from S. Paulo. 665
483 Province of Alagoas.—Vegetable wool. 665
484 Province of Pernambuco.
a Russian cotton. 665
b Tow. 666
c Bristles. 669
485 Province of Parana.
a Cotton. 665
b Flax. 666
c Wool. 667
d Animal hair. 669
486 Province of Maranhao.—Ginned cotton. 665
487 Municipality of Quebranguelo.—Cotton in the boll and twisted. 665
488 Province of San Paulo.—Cotton. 665
489 Miranda, M. M. de.—Ginned cotton. 665
490 Athayde, M. E. Souza.—Cotton on the stem. 665
491 G. B. T., Rio de Janeiro.—Cotton on the stem. 665
492 Soares, O. J.—Cotton. 665
493 Merch, Maximiliano.—Cotton. 665
494 Paes Leme, Rosalina.—Cotton. 665
495 Silva, F. J. Xavier da.—Cotton. 665
496 Colony Itajahy.—Cotton. 665
497 Mello, J. Correira de.—Cotton, called creoulo. 665
498 Brava, Fray Luiz da.—Cotton. 665
499 Colony of Sancta Maria de Soledade.—Cotton. 665
500 Colony Blumenau.—Cotton. 665
501 Decker, Isaac.—Cotton. 665
502 Valle, Raymundo J. F.—Cotton on the stem. 665
503 Commission for Carnaru.—Grey cotton. 665

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Textile Substances, Machinery, Engineering, Administration.

504 Barros, Diogo A. de.—Cotton in skeins. 665

505 J. C. A., Limeira.—Cotton. 665

506 Commission General for the National Exhibitions, Rio de Janeiro.
a Hemp and other vegetable fibres. 666
b Horse-hair and other hair. 669

507 Province of Pernambuco.
a Vegetable fibres. 666
b Bristles. 669

508 Province of Sancta Catharina.—Tucum thread and paina. 666

509 Commission for Votureava.—Isca de Roceira. 666

510 Province of Amazonas.—Piassaba fibres. 666

511 Barros, L. Gomes de.—Cipo matta gente for withes. 666

512 Muricy, Dr.—Cipo florao. 666

513 Leao, Rego Barros S.—White embira. 666

514 Palma, Ant. J. da.—Red embira. 666

515 Lacerda, A. F. de.—Piattaba fibres. 666

516 Bley, J.—Fibres of the Urtica speciosa. 666

517 Barros, A. Aguiar de.—Vegetable fibres. 666

518 Guimaraes, M. A.—Betas and fibres of tucum. 666

519 Oliveira, P. M. de.—Tapuru. 666

520 Taborda Ribas, M.—Isca of Urupe. 666

521 Bofim, F. Theodoro do.—Fibres of the Anona silvatica. 666

522 Killian, J. E.—Vegetable fibres. 666

523 Ferreira, S. P., & Negrao, J. de S.—Fibres of the Cecropia pellata. 666

524 Leao, Agostinho de.—Paina. 666

525 Cruz, B. A. da, & Bomfun, Florindo T.—Fibres of bombax and of the Copaifera officinalis. 666

526 Portella, Felix F.—Vegetable hair. 666

527 Ferreira & Co., Gasper P.—Fibres of the umbauba tree. 666

528 Bomfin, F. Theodoro do, and others.—Vegetable fibres. 666

529 Paes Leme, Rosalina.—Flax. 666

530 Keller, Philippe.—Flax. 666

531 Kalden, Baron of.—Prepared flax. 666

532 Ackermann, Carlos, & Bladern, G.—Prepared flax. 666

533 Barros, F. Fernandes de.—Fibres of tucum. 666

534 Leao, E. de.—Flax. 666

535 Almeida, A. Rufino de.—Vegetable fibres. 666

536 Province of Ceará.—Fibres of tucum and paina. 666

537 Steele, J.—Jute. 666

538 Leite, Severino.—Vegetable hair and wool. 666

539 Lang & Co.—Hemp and flax. 666

540 Province of Para.—Jute. 666

541 Province of Bahia.—Vegetable hair. 666

542 Province of S. Paulo.—Paina. 666

543 Villa-Franca, Baron of.—Paina. 666

544 Agricultural Institute.—Wool. 667

545 Schimmelpfeng, A.—Wool. 667

546 Wirmond, Ernesto.—Wool. 667

547 Province of Paraná.
a Wool. 667
b Hair. 669

548 Province of Alagoas.—Vegetable wool. 667

549 Santos Reis & Co., Pedro A. dos.—Reeled silk. 668

550 Mello Netto, Franc de Paula.—Cocoons. 668

551 Schrazer, Paulo.—Cocoons. 668

552 Eugenia & T.—White silk. 668

553 Morvira, Nicolau J.—Cocoons. 668

554 Moreira, Nicolau.—Silk-worms. 668

555 Reis, Luciano.—Silk in the cocoon and reeled. 668

556 Resende, Luiz de.—Silk-worms, cocoons, reeled silk, and apparatus for reeling silk. 668

Machines, Implements, and Processes of Manufacture.

557 Bierremback & Brother.—Plows. 670

558 Antunes, J. A.—Machine for preparing coffee. 674

559 Blanchet, J.—Small plows. 670

560 Province of S. Paulo.—Plows. 670

561 Province of Parana.—Plows. 670

Agricultural Engineering and Administration.

562 Province of Amazonas.—Guano. 681

563 Muricy & Leao.—Guano. 681

Chemicals.

564 Yeiga, F. Aprigio da.—Pharmaceutical products. 200

565 Lepage, F. J.—Pharmaceutical products. 200

566 Dias, Duarte.—Drugs. 200

567 Province of Ceara.—Medicinal oils. 200

568 Alves, Leao.—Pharmaceutical preparations. 200

569 Dias, C. Falcon.—Pharmaceutical preparations. 200

570 Braga, jr.—Pharmaceutical preparations. 200

571 Military Hospital of Rio de Janeiro.—Pharmaceutical preparations. 200

Fabrics of Vegetable, Animal, or Mineral Materials.

572 Province of Amazonas.
a Brooms. 286
b Cordage of rattan. 287

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

ARGENTINE REPUBLIC.

(West of West Aisle, Columns 9 to 13.)

Arboriculture and Forest Products.

Arboriculture and Forest Products.

1 Commission of the Chaco Argentine Territory.
a Collection of natural and polished woods. 600
b Indigo plant and curupai bark. 602

2 Gallegos, Miguel, Chaco Argentine Territory.—A cane; samples of wood. 600

3 Aguilar, Francisco D., Province of San Juan.—Flowers made from carob tree wood; chica wood; collection of woods to be presented to the National Department of Agriculture. 600

4 Laugan, Juan, Province of San Juan.—Collection of woods. 600

5 Provincial Commission, Province of Santa Fé.
a Collection of woods, polished lignum-vitæ. 600
b Laurel bark and tanning materials. 602

6 Echevarria, Cecilio, Province of Santa Fé.
a Collection of woods; polished samples. 600
b Dyes. 602

7 Provincial Commission, Province of Cordoba.
a Collection of woods; polished samples. 600
b White carob tree and molle seed. 605

8 Cornejo, John, Province of Salta.
a Cherimoya seed. 600
b Palo Santo resin. 603

10 Provincial Commission, Province of Salta.
a Collection of seeds and woods. 600
b Dyeing and tanning materials. 602

11 Villar, Salvador, Province of Jujui.
a Collection of woods. 600
b Socondo and pastilla bark. 602
c Palm, lignum-vitæ, quina-quina and pacara seeds, etc. 605

12 Provincial Commission, Province of Catamarca.
a Collection of woods. 600
b Dyeing and tanning materials. 602
c Visco and lignumvitæ seeds, etc. 605

13 Provincial Commission, Province of La Rioja.
a Collection of woods. 600
b Tar, carob resin, and Lata incense. 603
c Yareta plant, containing much resin. 604
d Collection of seeds. 605

14 Cecenarro, Vicente, Province of Catamarca.—Viscote wood. 600

15 Lafone, Quevedo, Samuel Province of Catamarca.—Black carob wood. 600

16 Andalgala Commission, Province of Catamarca.
a Cactus. 600
b Dyeing and tanning products. 602

17 Provincial Commission, Province of Tucuman.
a Samples of wood in logs, partly polished. 600
b Cebil bark for tanning, Socondo. 602

18 Provincial Commission, Province of Mendoza.
a Samples of wood in logs. 600
b Chanar bark for cleaning cloth and Retortuno for tanning. 602
c Gums and resins. 603

19 Videla, Victor, Province of San Luis.
a Collection of woods; polished samples. 600
b Barks for tanning. 602

20 Provincial Commission, Province of Corrientes.—
a Collection of polished and unpolished woods. 600
b Bark of black laurel and curupay tree, used for tanning, etc. 602
c Peanuts, and creeping plant called curuhay guazu. 605

21 Roibon, Enrique, Province of Corrientes.—Caroba wood. 600

22 Resoagli, Luis, Province of Corrientes.—Collection of woods; boxes. 600

22*a* River Bermejo Navigation Co., Chaco, Argentine Territory.—Palo santo wood. 600

23 Bella Vista Sub-Commission, Province of Corrientes.
a Collection of woods. 600
b Orange seed, chichita, suspiros, peanuts. 605

24 Ferrér, Vicente, Province of Corrientes.—Sticks of different woods. 600

25 National Department of Agriculture, Province of Corrientes.—Samples of Urunday wood. 600

26 Justice of the Peace of Ensenada, Province of Buenos Ayres.—Collection of woods. 600

27 Valdes, Emiliano, & Cipriano, Province of Buenos Ayres.
a Collection of curromamuel and other woods. 600
b Mushrooms grown on willow bark. 604

28 Agricultural School of Santa Catalina, Province of Buenos Ayres.—Beehives made of black acacia. 600

29 Roibon, Federico, Province of Corrientes.—Pictures of trees in water-colors. 600

30 Boero, José, & Poletti, Antonio, Province of Buenos Ayres.—A rack made of twenty-five kinds of wood. 600

31 Iniguez, Manuel, Province of Buenos Ayres.—Specimens of woods. 600

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Arboriculture, Forest, and Agricultural Products.

32 Provincial Commission, Province of Santiago del Estero.
a Collection of woods in logs. 600
b Collection of dyeing woods, etc. 602

33 Provincial Commission, Province of Entre-Rios.—Samples of polished woods. 600

34 Elola, P., Province of Entre-Rios.—Collection of woods. 600

35 Berdue, Martin, Province of Entre-Rios.—Box made of different woods. 600

36 Parana Commission, Province of Entre-Rios.
a Collection of woods. 600
b Roots and barks; cochineal and dyeing materials. 602
c Turpentine. 603

37 Roman, José, Province of Buenos Ayres.—Carob and mandubay wood. 600

38 Garrigos, J. M., Province of Buenos Ayres.—Collection of woods. 600

39 Gallino, J. A., Province of Entre-Rios.—Collection of woods. 600

40 Echebehere, Pedro, Province of Buenos Ayres.—Collection of woods. 600

41 Fontes, Vicente, & Neyra, Sisto, Province of Buenos Ayres.—Collection of woods. 600

42 Calderon, Pedro, Province of Buenos Ayres.—Collection of woods. 600

43 Gonzalez, Meliton, Province of Buenos Ayres.—Collection of woods. 600

45 Provincial Commission, Province of San Luis.
a Dyeing and tanning products. 602
b Gum and resin. 603

46 Medina, Luis R., Province of Catamarca.
a Visco and coco woods. 600
b Cocoanut bark. 602

47 Hurley, Tomas, Province of Catamarca.—Dyeing products. 602

47*a* Vidal, M. A., Province of San Juan.—Quillo and retortuno for dyeing. 602

47*b* Caecedo, A., Province of San Juan.—Retortuno for dyeing. 602

47*c* Correa, B., Province of San Juan.—Retortuno root for dyeing. 602

47*d* Roderiguez, V., Province of San Juan.—Retortuno root for dyeing. 602

47*e* Poblete, F., Province of San Juan.—Romerrillo. 602

48 Sievert, Max, Province of Salta.
a Silk and wool dyed with the product of the lapacho tree; other dyeing products. 602
b Peat. 604

49 Gonzales, Joaquin, Province of La Rioja.
a Sacanza and roots for dyeing. 602
b Guano, etc. 603

50 Wurffbain, Gustavo, Province of La Rioja.
a Roots for tanning and dyeing, cleansing substances replacing soap, jume for making soap. 602
b Cotton-seed. 605

51 Gelos, Martin, Province of La Rioja.—Dyeing and tanning products. 602

52 Fava, Carlos, Province of Corrientes.—Cochineal and indigo-plant. 602

53 Lopez, Feliciano, Province of Corrientes.—Mbui plant, for dyeing silk and wool. 602

54 Pujol, Eliza, Province of Corrientes—Root of isypoyu, for dyeing; coloring roots. 602

55 Poisson, J. T., Province of Corrientes.—Urucu-seed, for dyeing. 602

56 Ritsch, Felipe, Province of Mendoza.—Roots for tanning. 602

57 Ocampo & Acosta, Province of Cordoba.—Bark, seed, and other products for tanning. 602

59 Ubach de Colon, José, Province of Entre-Rios.—Sarsaparilla, carob-bark, and other tanning and dyeing products. 602

60 Sub-commission of the Department of Diamante, Province of Entre-Rios.—Cochineal, carob-bark, and other dyeing and tanning materials. 602

61 Soler, Ventura, Province of Entre-Rios.—Laurel and carob-bark and other dyeing and tanning materials. 602

62 Rodriguez, Severo, Province of San Juan.
a Resins of chilca, etc. 603
b Carob and myrrh seed. 605

63 Balban, Nonasca, Province of Catamarca.—Carob-resin and black resin. 603

64 Flores, Nicanor, Province of Salta.—Tar. 603

65 Sollá, Juan, Province of Salta.—Yareta, a resinous plant. 603

66 Riso, Petrona, Province of Catamarca.—Cherimolia seed. 605

66*a* Flemming, Miguel, Province of Salta.—Tipa and tarco seed. 605

67 Machado, Ruben, Province of Catamarca.—Mistol and carob tree seed. 605

67*a* Goyri, Bernardo, Province of Entre-Rios.—Samples of seeds. 605

68 Ponce, Isidora, Province of Catamarca.—Molle seed. 605

69 Esparsa, José, Province of Catamarca.—Seed of acacia aroma, for dyeing and medicinal purposes. 605

70 Miranda, José, Province of Catamarca.—Acacia for feed, and for hedges. 605

71 Albarez, Francisco, Province of La Rioja.—Walnuts. 605

72 Larrahona, Pedro, Province of La Rioja.—Malingasta nuts. 605

73 Chaves, Crisologo, Province of La Rioja.—Tusca seeds. 605

74 Peluffo, Vicente, & Co., Province of Buenos Ayres.—Collection of seeds. 605

Agricultural Products.

75 Imaz Bros., Province of Buenos Ayres.—Wheat. 620

76 Unzué, Saturnino, Province of Buenos Ayres.—Wheat and corn. 620

77 Grego, A., Province of Buenos Ayres.—Wheat. 620

78 Diaz, Eugenio, Province of Buenos Ayres.—Wheat. 620

79 Traverso, Juan, Province of Buenos Ayres.—Wheat. 620

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp 12–14.

Agricultural Products.

80 Bruno, Domingo, Province of Buenos Ayres.—Wheat. 620

80*a* Vidal, Augustin, Province of Buenos Ayres.—Wheat. 620

81 Alonso, Manuel, Province of Buenos Ayres.—Wheat. 620

82 Ibarra, Venero, Province of Buenos Ayres.—Wheat. 620

83 Provincial Commission, Province of Buenos Ayres.—Wheat. 620

83*a* Cornejo, John, Province of Salta.—Sugar cane. 620

84 Bertolate, G., Province of Buenos Ayres.—Wheat. 620

85 Buffa, Agustin, Province of Buenos Ayres.—Wheat. 620

86 Lanzon, N., Province of Buenos Ayres.—Wheat. 620

87 Malvichini, N., Province of Buenos Ayres.—Wheat. 620

88 Costa, Bartolo, Province of Buenos Ayres.—Wheat. 620

89 Justice of the Peace of Juarez, Province of Buenos Ayres.—Wheat. 620

90 Justice of the Peace of Patagones, Province of Buenos Ayres.—Wheat, barley, and corn. 620

91 Guerin, N., Province of Buenos Ayres.—Wheat. 620

92 Mildred, Juan, Province of Buenos Ayres.
a Wheat and barley. 620
b Lucern seed. 624

93 Justice of the Peace of Bahia Blanca, Province of Buenos Ayres.—Wheat, barley, and corn. 620

94 Burgos, R., Province of Buenos Ayres.—Wheat. 620

95 Acuña, Francisco, Province of Buenos Ayres.—Barley and corn. 620

96 Peluffo, Angel, Province of Buenos Ayres.
a Barley. 620
b Lima beans. 621
c Seeds; hemp and flax, lucern, lentils, palmacristi, etc. 624

97 Agricultural School of Santa Catalina, Province of Buenos Ayres.—Corn and grasses. 620

98 Arce, Invencio, Province of Buenos Ayres.—Corn. 620

99 Justice of the Peace of Zarate, Province of Buenos Ayres.—Corn. 620

100 Martinez, Hercules, Province of Buenos Ayres.—Corn. 620

102 Valdez, Emiliano, Province of Buenos Ayres.—Corn. 620

104 Agricultural School of Santa Catalina, Province of Buenos Ayres.—Fresh beans; lentils. 620

105 Valdes, Emiliano & Cipriano, Province of Buenos Ayres.
a Barley, sugar-cane, straw, etc. 620
b Garlic. 621

106 Galarani, Carlos, Province of Buenos Ayres.
a Flax, barley, corn, wheat, maize, and cattle-feed. 620
b Beans. 621

107 Government of the Province of San Juan.—Grasses, straw, maté herb, etc. 620

108 Rodriguez, Victor, Province of San Juan.—Junquille grass. 620

109 Sarmiento, Juan L., Province of San Juan.—Yellow and white corn; wheat. 620

110 Correa, Benidicto, Province of San Juan.—Corn and wheat. 620

111 Mazo, Julian, Province of San Juan.
a White and red corn. 620
b Lima beans. 621

112 Amafil, Benigno, Province of San Juan.—Yellow corn. 620

113 Frias, Salvador, Province of San Juan.—White corn, barley, wheat. 620

114 Vidal, Marco A., Province of San Juan.—Red corn, white wheat. 620

115 Jones, Fabian, Province of San Juan.—Red corn; wheat. 620

116 Aguilar, Juan M., Province of San Juan.—Red corn; wheat. 620

117 Ruiz, Clemente, Province of San Juan.
a Red corn, wheat. 620
b Beans. 621
c Lucern seed. 624

118 Jofré, Roman, Province of San Juan.—Red corn. 620

119 Rufino, Geronimo C., Province of San Juan.
a White corn. 620
b Beans and peas. 621

120 Figueroa, Tomas, Province of San Juan.—White corn. 620

121 Ruiz, G., Province of San Juan.—White corn. 620

122 Balaguer, Tristan, Province of San Juan.—Corn. 620

123 Rosa, Rosaure de la, Province of San Juan.
a Corn. 620
b Lucern seed. 624

124 Baca, John, Province of San Juan.—Corn, wheat. 620

125 Lloveras, Lisandro, Province of San Juan.—White corn. 620

126 Cordero, Pedro J., Province of San Juan.
a White corn. 620
b Peas, barley, and wheat. 621
c Lucern seed. 624

127 Castro, Pedro, Province of San Juan.—White corn. 620

128 Bates, Benjamin, Province of San Juan.
a Wheat. 620
b Canary seed. 624

133 Bodarata, Juan, Province of San Juan.—Barley. 620

134 Ramirez & Co., Province of San Juan.
a Barley, white corn. 620
b Lima beans, peas, etc. 621

137 Day, Frederica, Province of San Juan.—Wheat. 620

138 Muñoz, Brancisco, Province of San Juan.—Wheat. 620

139 Ledesma, H., Province of San Juan.—Wheat. 620

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Agricultural Products.

140 Provincial Commission, Province of Salta.
a Corn, peanuts, barley, wheat, melons, sugar-cane, etc. 620
b Tobacco. 623
c Onion and lucern seed. 624

141 Flemming, Miguel, Province of Salta.
a Wheat and corn. 620
b Potatoes. 622

142 Toro, Ignacio, Province of Salta.—Wheat, barley, corn, and lucern seed. 620

143 Gonzalez, Joaquin, Province of La Rioja.—Corn for flowers, and also for flour, wheat, lucern seed. 620

144 Davila, Guillermo, Province of La Rioja.
a White corn, sugar corn, wheat. 620
b Lima beans. 621

145 Larrohona, Pedro, Province of La Rioja.
a Corn, wheat, and barley. 620
b Lima beans. 621

146 Villafane, Nicolasa, Province of La Rioja.
a Corn. 620
b Lima beans. 621

147 Illañes, José Manuel, Province of La Rioja.—White corn, barley, wheat. 620

148 Provincial Commission, Province of La Rioja.
a Corn, wheat, barley. 620
b Lima beans. 621
c Onion seed. 624

149 Gonzalez, Ventura, Province of La Rioja.—Wheat. 620

152 Alvarez, Francisco, Province of La Rioja.
a Wheat in stalks. 620
b Lima beans. 621

153 Muro, Froilan, Province of Catamarca.
a Corn. 620
b Beans and peas. 621

154 Diaz, Ramon, Province of Catamarca.
a Wheat. 620
b Lima beans. 621

155 Artaza, Santiago, Province of Catamarca.
a Wheat. 620
b Beans and peas. 621

156 Provincial Commission, Province of Catamarca.
a Corn, wheat, barley, and grasses. 620
b Lima beans. 621
c Indian pepper, tobacco, cigars, etc. 623

157 Molina, José, Province of Catamarca.
a Corn, wheat. 620
b Beans. 621

158 Vega, G., Province of Catamarca.—White corn. 620

159 Artasa, Manuel, Province of Catamarca.—Corn, etc. 620

160 Miranda, José A., Province of Catamarca.—White corn. 620

161 Sub-commission of the Department of Ancasti, Province of Catamarca.
a Corn. 620
b Lima beans, etc. 621

162 Sub-commission of the Department of Alto, Province of Catamarca.—White corn. 620

163 Alvarez, S., Province of Catamarca.—Wheat. 620

164 Ahamada, B., Province of Catamarca.—Wheat. 620

165 Riso, Ventura, Province of Catamarca.—Geneva wheat. 620

166 Herrera, Miguel, Province of Catamarca.—Wheat. 620

167 Aguilar, Olegaria, Province of Catamarca.—Wheat. 620

168 Tula, Nabor, Province of Catamarca.—Wheat, lucern seed. 620

169 Sub-commission of Belen, Province of Catamarca.
a Corn, wheat. 620
b Beans. 621

170 Sub-commission of the Department of Pachin, Province of Catamarca.
a Small corn, wheat, Geneva seed, white and yellow corn. 620
b Lima beans. 621

171 Sub-commission of the Department of Santa Maria, Province of Catamarca.—Corn and wheat. 620

172 Alric, Antonio, Province of San Luis.—Corn, wheat, and barley 620

173 Provincial Commission, Province of San Luis.
a Corn, wheat, barley, and cattle feed. 620
b Beans. 621

174 Arrondo, Agustin, Province of Entre-Rios.—Wheat. 620

175 Paraña Commission, Province of Entre-Rios.
a Corn, etc. 620
b Beans and peas. 621
c Potatoes. 622
d Tobacco. 623

176 Gualeguaychu Sub-commission, Province of Entre-Rios.—Wheat, corn, etc. 620

177 Goyri, B., Province of Entre-Rios.—Corn. 620

178 Balugera, Domingo, Province of Entre-Rios.—Rice and corn. 620

179 Crespo, Manuel, Province of Entre-Rios.—Paraná wheat. 620

180 Uruguay and Paraná Commission, Province of Entre-Rios.
a Collection of seeds and cereals. 620
b Collection of seeds. 624

181 Meyer, Edmundo, Province of Santa Fé.—Wheat and barley. 620

182 Ceretti, L., Province of Santa Fé.—Wheat. 620

183 Lubary, T., Province of Santa Fé.—Wheat. 620

184 Colonia San Carlos Sub-commission, Province of Santa Fé.—Barley. 620

185 Nickisch, Manuel, Province of Santa Fé.
a Corn. 620
b Lima beans, etc. 621

186 Iturrapse Co., Province of Santa Fé.—Wheat. 620

187 Bergeré, Dr., Province of Santa Fé.—Peanuts. 620

188 Blanchaud, Miguel, Province of Santa Fé.
a Peanuts, corn, and wheat. 620
b Chick-peas. 621
c Leaf tobacco. 623

189 Beken, Federico, Province of Santa Fé.—Wheat. 620

190 Schuling, German, Province of Santa Fé.—Corn. 620

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Agricultural Products.

191 Pillier, N., Province of Santa Fé.—Wheat. 620

192 Carignano Bros., Province of Santa Fé.—Wheat. 620

193 Vaivas, Carlos, Province of Santa Fé.—Wheat. 620

194 Provincial Commission, Province of Santa Fé.—Dry lucern, corn. 620

195 Frischi, Cristino, Province of Santa Fé.—Wheat. 620

196 Arminchiardi, Juan, Province of Mendoza.—Wheat. 620

197 Fourcade, Pedro, Province of Mendoza.—Wheat. 620

198 De la Cruz Videla, Juan, Province of Mendoza.—Wheat. 620

199 Roman, Medardo, Province of Mendoza.
a Wheat. 620
b Lima beans. 621

200 Sanchez, Modesto, Province of Mendoza.—White Lima beans. 621

201 Provincial Commission, Province of Mendoza.—Corn. 620

202 Agricultural Villa of Mendoza, Province of Mendoza.
a Corn and wheat. 620
b Lima beans and peas. 621

203 Provincial Commission, Province of Jujui.
a Rice, corn, and wheat. 620
b Indian pepper, tobacco. 623

204 Provincial Commission, Province of Tucuman.
a Corn, rice, wheat. 620
b Sweet potatoes, etc. 622
c Tobacco, cigars, etc. 623

205 Commission of the Chaco Argentine Territory.
a Corn, sugar-cane, espartillo grass. 620
b Tapoyua, used as a food; mandioca, for making starch and chipa bread, etc. 622
c Flowers made of saffron; tobacco. 623

206 Harbor-master, Chaco Argentine Territory.—Sugar-cane plant, espartillo grass, etc. 620

207 Ferré, Vicente, Province of Corrientes.—Sugar-canes. 620

208 Commission of the Province of Corrientes.
a Sugar-cane. 620
b Mandioca. 622
c Tobacco, maté herbs, etc. 623

209 Bella Vista Sub-commission, Province of Corrientes.
a Corn. 620
b Popi from mandioca. 622
c Tobacco. 623

210 Appleyard, Juan B., Province of Corrientes.
a Rice. 620
b Maté herbs. 623

211 Provincial Commission, Province of Santiago del Estero.
a Wheat. 620
b Sweet potatoes. 622

212 Michelond, Miguel, Province of Santa Fé.—Peach sugar-cane. 620

213 Provincial Commission, Province of Cordoba.
a Wheat. 620
b Peas and beans. 621
c Sweet potatoes. 622
d Cigars, pepper, tobacco, mustard, etc. 623

214 Ferrando, Juan, Province of Entre-Rios.—Lima beans and peas. 621

214*a* Aubone, Daniel, Province of San Juan.—Beans. 621

215 Escobar, Juan de Dios, Province of San Luis.—Lima beans. 621

215*a* Farias, José A., Province of San Juan.—Beans, peas, etc. 621

216 Pouyet, Miguel, Province of Mendoza.—Collection of garden-seeds, beans, peas, etc. 621

216*a* Davila, Bonifacio, Province of La Rioja.—Beans. 621

217 Denner, Santiago, Province of Santa Fé.
a Lima beans. 621
b Tobacco seed. 624

217*a* Bascuñan, Francisco, Province of La Rioja.
a Beans. 621
b Lucern seed. 624

218 Cordoba, Demetrio, Province of Catamarca.—Lima beans. 621

219 Sans, N. Roca, Province of Mendoza.—Potatoes. 622

220 Audielo, M., Province of Buenos Ayres.—Potatoes. 622

221 Polá, Juan, Province of Salta.—Potatoes, red and sweet oca oxalis. 622

222 Delgado, Daniel, Lamincha, Province of Catamarca.—Potatoes. 622

223 Maxit, José, Province of Entre-Rios.—Potatoes. 622

224 Pfeiffer, Pedro, Province of Santa Fé.—Potatoes. 622

225 Rizo, Isidoro, Province of Catamarca.—Coffee. 623

226 Bustamante, O., Province of Catamarca.—Tobacco and cut maize leaves for cigarettes. 623

226*a* Appleyard, T. B., Province of Corrientes.—Tobacco. 623

227 Barros, Sebastian, Province of Catamarca.—Cumin and anise. 623

227*a* Coudert, A., Province of Buenos Ayres.—Cigarettes. 623

228 Augier, Uladislao, Province of Catamarca.—Cumin seed. 623

229 Alvarez, Cruz, Province of Catamarca.—Cumin seed. 623

230 Arrillaga, Javier, Province of Corrientes.—Maté herb packed in tapir skin. 623

230*a* Esquivel, Peter A., Province of Corrientes.—Cigars. 623

231 Vera, Matilde, Province of Corrientes.—Pigeons stuffed with maté; herbs packed in wolf skins. 623

232 Alegre, John, Province of Corrientes.—Maté. 623

233 Beita, Valentin, & Co., Province of Santa Fé.—Tobacco, coffee, pepper, cinnamon, cumin, cloves, chocolate. 623

234 Silva, F., Province of Santa Fé.—Arazá (a spice). 623

234*a* Cobo, L., Province of Tucuman.—Tobacco. 623

235 Aragon, S., Province of Santa Fé.—Tobacco. 623

237 Invernice, Pedro, Province of Santa Fé.—Spurge. 622

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

238 Granada, Salvador, Province of Cordoba.—Chocolate. 623

239 Villar, Salvador, Province of Jujui.
a Coffee. 623
b Castor beans, etc. 624

240 Carrillos, Pablo, Province of Jujui.—Tobacco. 623

241 Baigorra, José, Province of Jujui.—Wild cocoa, etc. 623

242 Burela, Serapio, Province of Salta.—Tobacco. 623

243 Davalos, Benjamin, Province of Salta.—Tobacco leaves. 623

244 Waile, S., Province of Salta.—Cigarettes. 623

245 Zolezi, Nicolas, Province of Buenos Ayres.—Snuff and cigars. 623

246 Lago & Son, Antonio, Province of Buenos Ayres.—Cigarettes. 623

247 Andes, Mendez M. de, Province of Buenos Ayres.—Cigarettes. 623

248 Daumas, J., & Co., Province of Buenos Ayres.—Cigarettes and tobacco. 623

249 Coll, Vitoria, & Co., Province of Buenos Ayres.—Cigarettes. 623

250 Schroeder, Nicolas, Province of Buenos Ayres.—Leaf tobacco and cigars. 623

251 Lista, Manuel, & Schröder, T., Province of Buenos Ayres.—Leaf tobacco. 623

252 Casanco, Juan, Province of Santa Fé.—Flax and spurge seed. 624

253 Peluffo, Vicente, & Co., Province of Buenos Ayres.—Seeds. 624

255 Arenales, A. M. Alvarez de, Province of Buenos Ayres.—Jerusalem artichoke seed. 624

Land Animals.

258 Provincial Commission, Province of Mendoza.—Collection of birds. 635

259 Lemos, Abraham, Province of Mendoza.
a Hawk, woodpecker, wild sandpiper. 635
b Lynx, stuffed mataco, etc. 637
c Lizard, scorpions, insects, etc. 638

260 Nuñez, Santos, Province of Catamarca.—Humming-bird. 635

261 Franco, Luis A., Province of Catamarca.—Humming-bird. 635

262 Poblete, Tiburcio, Province of San Juan.—Ostrich skin. 635

263 Provincial Commission, Province of San Juan.—Prepared skins of ternlern, partridge, chimango, craw birds, etc. 635

264 Dominguez, José, Province of San Juan.—Prepared skins of banduria. 635

265 Rosario Tala, Sub-commission, Province of Entre-Rios.—Stuffed gull and quail. 635

267 Provincial Commission, Province de San Luis.
a Nest of hornero. 635
b Lizard skin. 638

268 Provincial Commission, Province de Catamarco.
a Mataco and quirquincho shells. 635
b Wasp's nest. 638

269 Echevets, Gabriel, Province of Buenos Ayres.—A stuffed wildcat of Balcarce. 637

269*a* Goyena, John, Province of Buenos Ayres.—Stuffed toad and rabbit. 637

269*b* Rio, T. R. del, Province of Buenos Ayres.—Toads. 637

269*c* Fuente, D. G. de la, Province of Buenos Ayres.—Toads. 637

270 Gonzalez, Juan, Province of Buenos Ayres.—Polecat and small fox, stuffed. 637

271 Valdès, Emiliano & Cipriano, Province of Buenos Ayres.—Stuffed rat. 637

272 Rosario Tala, Sub-commission, Province of Entre-Rios.—Stuffed polecat. 637

274 Echavarria, Cecilio, Province of Santa Fé.—Vipers. 638

275 Commission of the Chaco Argentino Territory.—Rattlesnake and coral viper. 638

276 Provincial Commission, Province of Corrientes.—Curiyú viper's skin. 638

277 Fernandez, Severo, Province of Corrientes.—Viper skins. 638

278 Fava, Carlos, Province of Corrientes.—Viper skins. 638

279 Poisson, Juan T., Province of Corrientes.—Viper's skin. 638

280 Bella Vista Sub-commission, Province of Corrientes.—Spiders and their silk in cocoons, snakes. 638

281 Gonzalez, Pedro J., Province of Corrientes.—Dissected guana (South American lizard). 638

282 Diaz, Eulogia, Province of Corrientes.—Stuffed viper. 638

283 Jurado, G. Doraliza de, Province of San Luis.—Black wasp's comb. 638

284 Escobar, Juan de D., Province of San Luis.—Snake skin. 638

286 Laborda, Franklin, Province of San Luis.—Insects, snake, and lizard. 638

287 Day, Edmund, Province of Mendoza.—Viper. 638

288 Sanchez, Modesta, Province of Mendoza.—Viper. 638

289 Iñiguez, M. A., Province of Buenos Ayres.—Vipers in alcohol. 638

Water Animals, Fish Culture and Apparatus.

290 Provincial Commission, Province of Corrientes.—Shells. 645

291 Arteaga, Amancio, Province of Santa Fé.—Shells. 645

292 Provincial Commission, Province of San Juan.—Baskets. 647

293 Machado, Ruben, Province of Catamarca.—Basket of aibé straw. 647

294 Provincial Commission, Province of Salta.—Fishing-lines, etc. 647

Animal and Vegetable Products.

295 Parana Commission, Province of Entre-Rios.
a Sponges. 650
b Colt-grease, shad-oil, leather, skins, etc. 652
c Ostrich feathers. 653
d Sausage, jelly. 656
e Domestic beer, lemonade, and wine. 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

296 Provincial Commission, Province of Salta.
- *a* Cheese. 651
- *b* Viper vicugna, lion, chinchilla, and other skins; soles. 652
- *c* Honey and wax. 654
- *d* Dried peaches and nuts. 656
- *e* Wheat flour. 657
- *f* Mandioca and wheat starch. 658
- *g* Querosilla and sugar-cane syrups and sugar. 659
- *h* Aguardente brandy. 660

297 Dubois, B. B., Province of Entre-Rios.—Cheese. 651

298 Vasquez, Lucrecio, Province of Cordoba.—Achala cheese. 651

299 Vaillard, Hipolito, Province of Santa Fé.—Cheese. 651

299*a* Elia, Eveguiel, Province of Buenos Ayres.—Cheese. 651

300 Provincial Commission, Province of San Luis.
- *a* Butter. 651
- *b* Lion, hare, fox, buck, otter, and heron skins. 652
- *c* Eggs, condor and ostrich feathers. 653
- *d* Palpa and honey syrups. 659

301 Sola, Juan, Province of Salta.
- *a* Cheese. 651
- *b* Paisarana, fruit of the Indian fig. 656

302 Linares, Calisto, Province of Salta.—Cheese. 651

303 Arias, Francisco, Province of Buenos Ayres.—Sheepskin. 652

303*a* Oliden, T., Province of Buenos Ayres.—Marrow oil. 652

304 Justice of the Peace of Patagones, Province of Buenos Ayres.
- *a* Sheepskins. 652
- *b* Ostrich feathers. 653
- *c* Cherry liqueur and Chacoli wine. 660

305 Balcarce, German, Province of Buenos Ayres.—Sheep, goat, wild boar, otter, deer, weasel, wolf, and wild cat skins, etc. 652

305*a* Silges & Ferrando, Province of Buenos Ayres.—Hides and tallow. 652

306 Martinez, Luiz, Province of Buenos Ayres.—Hides. 652

306*a* Costa, Angel, Province of Buenos Ayres.—Charcoal. 652

307 Fragueiro, G., Province of Buenos Ayres.—Otter and sheepskins. 652

307*a* Ergueta, Manuel, Province of San Luis.—Guaraco's skin. 652

307*b* Ledesma Bros., Province of Cordoba.
- *a* Goat skins. 652
- *b* Wheat flour. 657

308 Provincial Commission, Province of Buenos Ayres.—Sea-lion skin, ox and colt hide. 652

309 Valdez, Emiliano, Province of Buenos Ayres.—Lion-skin, colt, and ox-hides. 652

310 Fuente, Diego G. de la, Province of Buenos Ayres.—Aguara skin. 652

311 Barrotaran, Juan, Province of Buenos Ayres.—Lamb skins. 652

312 Dugan, Tomas, Province of Buenos Ayres.—Sheepskins. 652

313 Gomez, Lorenzo, Province of Buenos Ayres.—Flamingo skin from La Laguna de los Padres (Balcarce). 652

314 Mora, J., Province of Buenos Ayres.—Sheepskin. 652

315 Acuña, P. Garcia, Province of Buenos Ayres.—Cow tripes prepared for export. 652

316 Battini, Angel Petro, Province of Buenos Ayres.—Leather. 652

317 Duportal, Emilio, Province of Buenos Ayres.—Skins. 652

318 Arnault, Augusto, Province of Buenos Ayres.—Domestic cat-skins for the cure of rheumatism. 652

319 Escalada & Co., Buenos Ayres.—Tanned and colored kid skins for gloves. 652

320 Bernard, Joaquin, Province of Buenos Ayres.—Sheep and lamb skins. 652

321 Bellocq Bros., Province of Buenos Ayres.—Calf skins. 652

322 Iniguez, A. Manuel, Province of Buenos Ayres.—Charcoal of curumanuel wood. 652

323 Jacquemard, Victor, Province of Buenos Ayres.—Animal charcoal. 652

324 Mujica, E. S., Province of Buenos Ayres.—Prepared blood for refining sugar and clarifying syrups. 652

325 Gauther, Adolfo, Province of Buenos Ayres.—Tallow. 652

326 Santillan Bros. & Co., Province of Santiago del Estero.—Leather for boots and lizard leather for gaiters; skins, etc. 652

327 Gelos, Martin, Province of La Rioja.—Wild-boar skins. 652

328 Gonzalez, Joaquin, Province of La Rioja.—Lion, vicugna, and ai-ai skins. 652

329 Provincial Commission, Province of La Rioja.
- *a* Leather, lion, goat, vicugna, and other skins, etc. 652
- *b* Dried peaches, raisins, and pressed olives. 656
- *c* Starch. 658
- *d* Nonogasta syrup. 659
- *e* Wine and brandy. 660

330 Commission of the Chaco Argentine Territory.
- *a* Tiger, wolf, deer, cat, and lion skins, etc. 652
- *b* Mandioca starch for making chipa bread. 653
- *c* Guaviranú liquors, sugar cane and orange juices. 660

331 Provincial Commission, Province of Catamarca.
- *a* Skins, leather, etc. 652
- *b* Lime and orange sweetmeats. 656
- *c* Flour. 657

332 Andalgalá Sub-commission, Province of Catamarca.—Vicugna, alpaca, gray fox, lamb skins, leather, etc. 652

333 Vergara, Aitillo, Province of Catamarca.—Swan skin. 652

334 Tinogasta Sub-commission, Province of Catamarca.—Lion, chinchilla, fox, wild-cat, ferret, and wild-boar skins. 652

335 Medina, J., Province of Catamarca.—Ampalagua and otter skins. 652

336 Santa Maria Sub-commission, Province of Catamarca.—Vicugna, chinchilla, and fox skins. 652

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Animal and Vegetable Products.

337 Pachin Sub-commission, Province of Catamarca.—Wildcat, ferret, guana skins, etc. 652

338 Belen Sub-commission, Province of Catamarca.
a Alpaca and vicugna skins. 652
b White wine. 660

339 Provincial Commission, Province of Tucuman.
a Skins and leather. 652
b Wheat starch. 658
c Sugar. 659
d Biscuits. 661

340 Provincial Commission, Province of Entre-Rios.—Swan and deer skins. 652

341 Victoria Sub-commission, Province of Entre-Rios.—Chajá skin. 652

342 Benites, A., & Co., Province of Entre-Rios.
a Tallow. 652
b Wax and honey. 654
c Preserved meats, beef extracts, etc. 656

343 Allurralde, Punte y Carril, Province of Entre-Rios.—Horse hide. 652

344 Darcher, Amadeo, Province of Entre-Rios.—Sea-wolf, fox, wildcat, and otter skins, etc. 652

345 Barcos, Pedro B., Province of Entre-Rios.—Skins. 652

346 Rosario Sub-commission, Province of Entre-Rios.—Buck, otter, ferret, coati, lion, fox, weasel, wildcat skins, etc. 652

347 Victoria Sub-commission, Province of Entre-Rios.—Skins. 652

348 Aiurralde, Rodolfo, Province of Entre-Rios.—Wildcat skin. 652

349 Fuento, Gregorio T. de la, & Del Carril, Pedro A., Province of Entre-Rios.—Sea-wolf, horse, deer skins, etc. 652

350 Provincial Commission, Province of Entre-Rios.—Wildcat, fox, otter skins, etc. 652

351 Fontes, Vicente M., & Neygra, Sixto, Province of Entre-Rios.—Tiger, lion, wolf, fox, ferret, otter, rabbit, wildcat, and weasel skins. 652

352 Goyri, Bernardo, Province of Entre-Rios.—Fox and weasel skins. 652

353 Maglioni, Francisco, Province of Entre-Rios. — Carpincho and deer skins. 652

354 Ceballos, Desiderio, Province of Salta. — Soles, black and morocco leather. 652

354*a* Garcia, Domingo, Province of Rioja.
a Glue. 652
b Grape syrup. 659

355 Saenz, Victoriano, Province of Salta.—Tiger skin. 652

356 Zorilla, Benjamin, Province of Salta.—Llama skin. 652

357 Correras, Segundo, Province of Mendoza.—Lion skin. 652

358 Provincial Commission, Province of Mendoza.
a Fox skins. 652
b Ostrich feathers. 653
c Dried peaches, sweatmeats, preserved lemons, etc. 656

359 Gomez, Cecilio, Province of Mendoza.—Chancho wild-boar skin.

360 Ribero, Jacinto, Province of San Luis.—Wildcat skins. 652

361 Sierra, Ramon de la, Province of San Luis.—Aguará purse and occiput of an ostrich. 652

362 Lahiton, Pedro, Province of San Luis.—Tanned hides, morocco, etc. 652

363 Ladies' Commission, Province of San Luis.
a Peach preserve, plum, melon, peach, lemon, water-melon, and quince sweetmeats, etc. 656
b Lemon and orange liquors. 660

364 Rodriguez, Severo, Province of San Juan.
a Tanned hide. 652
b Musk and peeled raisins. 656
c Wines. 660

365 Vidart, Juan A., Province of San Juan.—Lina hides. 652

366 Ruiz, Clemente, Province of San Juan.—Merino metis skin. 652

367 Moreno, Federico, Province of San Juan.—Ox hide. 652

368 Provincial Commission, Province of San Juan.
a Horns and fox skins. 652
b Raisins, preserved fruits. 656

369 Rodriguez, Victor, Province of San Juan.
a Horn combs. 652
b Raisins, etc. 656
c Wheat starch. 658
d Wines. 660

370 Provincial Commission, Province of Cordoba.
a Horn flasks and combs; lion, wild cat, and goat skins. 652
b Flava wax and honey. 654
c Sweetmeats. 656
d Flour, bran, etc. 657
e Indian fig-syrup. 659

371 Iriarte, Cárlos, Province of Cordoba —Tanned goat skins. 654

372 Ocampo & Acosta, Province of Cordoba.—Tanned hides. 652

373 Provincial Commission, Province of Jujui.
a Vicugna, llama, tiger, and other skins. 652
b Wax and wild honey. 654
c Dried peaches. 656
d Corn and wheat flour. 657
e Sugar. 659
f Querosilla mead. 660

374 Dagorret, Modesta, Province of Corrientes.—Tanned viper skin, sole leather, hides, etc. 652

375 Provincal Commission, Province of Corrientes.
a Otter skins. 652
b Ostrich feathers. 653
c Wax. 654
d Citron, peanut, lime, and other sweetmeats; cocoanuts. 656

376 Bella Vista Sub-commission, Province of Corrientes.—Otter skins. 652

377 Echevarria, Cecilio, Province of Santa Fé.
a Wolf, lion, tiger, fox, ostrich, and other skins. 652
b Wax. 654
c Wild fruit, preserved. 656
d Sugar-cane brandy. 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Animal and Vegetable Products.

378 Provincial Commission, Province of Santa Fé.
a Wolf, lion, goat, otter, hare, fox, deer skins, etc. 652
b Sweetmeats. 661

379 Martinez, Jonas, Province of Catamarca.—Ostrich feathers. 653

380 Suarez, R., Province of Santa Fé.—Ostrich feathers. 653

381 Soler, Ventura, Province of Entre-Rios.—Ostrich feathers. 653

382 Mavit, José, Province of Entre-Rios.—Honey. 654

383 Invernizzo, J., & Toschini, J., Province of Entre-Rios.—Wax and honey. 654

384 Otero, José, Province of Buenos Ayres.—Honey and wax. 654

385 Barraquero, Carmen, Province of Mendoza.
a Wax and honey. 654
b Preserves. 656
Grape, quince, and cherry syrups. 659
c White wine. 660

386 Pouyet, Miguel, Province of Mendoza.
a Honey. 654
b Nuts, almonds, and fruits. 656
c Cognac and wines. 660

387 Aragon, J. M., Province of Santa Fé.—Honey. 654

388 Iramon, Juan, Province of Santa Fé.—Honey and wax. 654

389 Jurado, Doraliza, G. de, Province of San Luis.—Honey. 654

390 Albarracin, Saturnino, Province of San Juan.—Wax. 654

391 Cortinez, Domitilio, Province of San Juan.—Honey. 654

392 Piñero, Aurelio, Province of Cordoba.—Wax. 654

393 Passel, Teodoro, Province of Cordoba.—Wax. 654

394 Cespedes, José, Province of Mendoza.—Dried apples and figs. 656

394*a* Biraben, A., Province of Entre-Rios.—Preserved meats. 656

395 Godoy, Nicolas, Province of Mendoza.—Preserved citrons. 656

395*a* Vignolles, Henry, Province of Santa Fé.—Preserved meats and patés. 656

396 Sanchez, Modesto, Province of Mendoza.—Preserved grapes. 656

397 Chaves, Rosaura, Province of Mendoza.—Olives. 656

398 Campos, Enrique, Province of Mendoza.
a Milk-extract. 656
b Orange-wine, anisette. 660

399 Rufino, Gerónimo C., Province of San Juan.—Musk-grape raisins. 656

400 Ramirez & Co., Province of San Juan.—Raisins. 656

401 Sarmiento, J. L., Province of San Juan.
a Raisins. 656
b Brandy. 660

402 Bates, Benjamin, Province of San Juan.
a Almonds and raisins. 656
b Flour and bran. 657

403 Herrera, P. J., Province of San Juan.—Nuts. 656

404 Mazo, Julian, Province of San Juan.—Raisins and figs. 656

405 Herrera, José, Province of San Juan.—Almonds. 656

406 Tacheret, Cárlos, Province of San Juan.—Figs. 656

407 Tacheret, Emilio, Province of San Juan.—Figs. 656

408 Jones, Fabian, Province of San Juan.—Figs. 656

409 Jofré, Ramon, Province of San Juan.
a Figs. 656
b Wines and vinegar. 660

410 Frias, Salvador, Province of San Juan.—Musk raisins. 656

411 Ruiz, Clemente S., Province of San Juan.—Nuts. 656

412 Aguilar, J. M., Province of San Juan.—Carob paste. 656

413 Governor of the Province, Province of Jujui.—Nuts. 656

414 Bascuñan, Francisco, Province of La Rioja.—Dried figs. 656

415 Olivera, Bernardo, Province of La Rioja.—Dried figs. 656

416 Gonzales, Ventura, Province of La Rioja.
a Raisins and dried figs. 656
b Nonogasta syrup. 659
c Wine. 660

417 Larrohona, Pedro, Province of La Rioja.—Raisins. 656

418 Garcia, Domingo, Province of La Rioja.
a Raisins. 656
b Nonogasta syrup. 659
c Wine, brandy, and anisette. 660

419 Dávila, Carmen T. de, Province of La Rioja.—Preserved olives, lime and peach preserves, and cayote sweetmeat. 656

420 Bustos, Sophia G., Province of La Rioja.—Quince preserve. 656

421 Treloar, Guillermo A., Province of La Rioja.
a Carob paste. 656
b Wines. 660

422 Moujon, Mercedes I., Province of Catamarca.—Raisins. 656

423 Santa Coloma, Isaac, Province of Catamarca.—Raisins, preserves, etc. 656

424 Herrera, Ramon, Province of Catamarca.—Musk-raisins. 656

425 Delgado, Manuel, Province of Catamarca.—Dried figs. 656

426 Medina, Luis R., Province of Catamarca.—Nuts. 656

427 Aguero, Patricia, Province of Catamarca.—Musk raisins. 650

428 Franco, Luis A., Province of Catamarca.—Candied quinces. 656

429 Acosta, Maria E. de, Province of Catamarca.—Candied quinces. 656

430 Colodrero, A., Province of Corrientes.—Yatay palm cocoanuts. 656

431 Videla, Victor, Province of San Luis.
a White carob and carob paste. 650
b Syrup, etc. 657

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Animal and Vegetable Products.

432 Escobar, Juan D., Province of San Luis.
a Dried figs and peaches. 656
b Wine and carob mead. 660

433 Ronchetti, Valentin, Province of Santa Fé.—Pickled partridges. 656

434 Nikisch, Manuel, Province of Santa Fé.—Pickled tongues. 656

435 Garvino, Signor, Province of Entre-Rios.—Salt meat and tongues; gelatine. 656

436 Valdes, Emiliano and Cipriano, Province of Buenos Ayres.—Salt tongues and beef, etc. 656

437 Olidon, Tomas, Province of Buenos Ayres.
a Sheep tongue, dried mutton and beef. 656
b Cognac bitters. 660

438 Beriso, Juan, & Co., Province of Buenos Ayres.—Dried tongues. 656

439 Cambaceres, Antonio, Province of Buenos Ayres.—Jerked beef and salt tongues. 656

440 Roverano Bros., Province of Buenos Ayres.—Sweetmeats in syrup. 656

442 Colla, Juan, Province of Entre-Rios.—Flour. 657

443 Cabilla, A., Province of Entre-Rios.—Grits. 657

444 Buada, F., Province of Entre-Rios.—Flour. 657

445 Dubois, José B., Province of Entre-Rios.—Flour. 657

446 Berizo, Domingo, Province of Entre-Rios.—Flour. 657

448 Pillier, N., Province of Santa Fé.—Flour. 657

449 Iturraspe & Co., Province of Santa Fé.—Bran, flour. 657

450 Wart, Carlos de, Province of Santa Fé.—Flour. 657

451 Quelet, Enrique, Province of Santa Fé.—Wheat flour. 657

452 Bauer, G., Province of Santa Fé.—Flour. 657

453 Lubary, Tomas, Province of Santa Fé.—Flour. 657

454 Frank & Lami, Province of Santa Fé.—Flour. 657

455 Fristchi, Celestino, Province of Santa Fé.—Wheat flour. 657

456 Gallo, B., Province of San Juan.—Flour and bran. 657

457 Frias, Salvador, Province of San Juan.—Flour and Chingo flour. 657

458 Appleyard, T. B., Province of Corrientes.
a Mandioca flour. 657
b Mandioca starch. 658

459 Fourcade, Pedro, Province of Mendoza.—Flour and bran. 657

460 Casas, Molino de, Province of Mendoza.—Flour. 657

461 Armenchiardi, Juan, Province of Mendoza.
a Corn meal and flour. 657
b Macaroni, vermicelli. 658

462 Tillar, Cárlos, Province of Jujui.—Flour. 657

463 Alric, Antonio, Province of San Luis.—Flour and bran. 657

464 Provincial Commission, Province of Santiago del Estero.—Flour. 657

466 Navarro, Cornelio, Province of Mendoza.—Wheat starch. 658

467 Gazzo, Luis, Province of Santa Fé.—Vermicelli. 658

468 Dávila, Nicolasa, Province of La Rioja.—Nonogasta syrup. 659

468*a* Mendevil, Fidel, Province of Tucuman.—Sugar. 659

469 Dávila, Guillermo, Province of La Rioja.—Nonogasta syrup. 659

470 Gordillo, Alcibiades, Province of La Rioja.—Nonogasta syrup. 659

471 Dominguez, José D., Province of San Juan.—Syrup. 659

472 Ovejero, Sisto, Province of Salta.
a Sugar. 659
b White wine. 660

473 Figueroa, José E., Province of Catamarca.—Syrup. 659

473*a* Garcia, S., Province of Tucuman.—Sugar. 659

474 Brisuela, Primitivo, Province of Catamarca.—Grape syrup. 659

475 Araob, Adelaida, Province of Catamarca.—Grape syrup. 659

476 Castello, Guadalupe, Province of Catamarca.—Grape syrup. 659

477 Leri, Petrona de, Province of Catamarca.—Grape syrup. 659

478 Aguero, Patricia, Province of Catamarca.—Grape syrup. 659

478*a* Mendez & Keller, Province of Tucuman.
a Sugar. 659
b Wines. 660

479 Aybar, J. R., Province of Catamarca.—Grape syrup. 659

479*a* Arguellos & Oliver, Province of Tucuman.—Loaf sugar. 659

479*b* Garcia, Fidel, Bros., Province of Tucuman.—Sugars. 659

480 Laborda, Franklin, Province of San Luis.—Orange, lemon, currant, banana, and peach syrup. 659

481 Bagley, M. S., Province of Buenos Ayres.—Bitters. 660

482 Pizzona, Miguel, Province of Buenos Ayres.—White and red wines. 660

483 Plá, José, & Co., Province of Buenos Ayres.—Anisette brandy. 660

484 Loy, José, Province of Buenos Ayres.—Hesperidina bitters. 660

485 Nuttall, Enrique, Province of Buenos Ayres.—Hesperidina bitters. 660

486 Calatroni, Pedro, Province of Buenos Ayres.—Banana balm, bittersweet tonic, and liquors. 660

487 German Brewery, Province of Buenos Ayres.—Chivilcoy beer. 660

488 Hanot, Jorge, Province of Buenos Ayres.—Orange-flower water, Chartreuse and Kerman liquor. 660

489 Dominguez, José, Province of San Juan.—Vinegar. 660

490 Terramola, Delfin, Province of San Juan.—Wine and vinegar. 660

491 Zavalla, Pedro J., Province of San Juan.—Wine. 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12-14

492 Quiroga, Isidro, Province of San Juan.—White wine. 660

493 Quiroga, Abraham, Province of San Juan.—Wine. 660

494 Balaguer, Juan E., Province of San Juan.—White and red wine. 660

495 Coll, Francisco M., Province of San Juan.—Bordeaux wine. 660

496 Doncel, Rosauro, Province of San Juan.—Wine. 660

497 Doncel, José E., Province of San Juan.—Trinidad wine. 660

498 Carraffa, Vicente, Province of San Juan.—Wines and brandy. 660

499 Herrera, Pedro, Province of San Juan.—Brandy. 660

500 Baca, Vicente, Province of San Juan.—Brandy. 660

501 Castro, Saturnino, Province of San Juan.—Brandy. 660

502 Espada, Tadeo, Province of San Juan.—Wine. 660

503 Dejorti, Eusebio, Province of San Juan.—Wine. 660

504 Lemaistre, Hilario, Province of Mendoza.—Wines, quince, gin, ratafia, and cherry liquors. 660

505 Blanco, Eusebio, Province of Mendoza.—Wines. 660

506 Guerin, Eugenio, Province of Mendoza.—Wines. 660

507 Michel, Salvador, Province of Salta.—Wines. 660

508 Flemming, M., Province of Salta.—Wine. 660

509 Dávalos, Asuncion, Province of Salta.—Wine. 660

510 Morales, Emilio, Province of Salta.—Bitters; cumin, orange and vanilla liquors, cocoa extract, banana balm, cognac, etc. 660

511 Flores, Nicanor, Province of Salta.—Wines. 660

513 Lopez, Filipe, Province of Salta.—Wines. 660

514 Velez, Amadeo, Province of Salta.—Wine. 660

515 Alvarez, Francisco, Province of La Rioja.—White wines. 660

516 Dávila, Bonifacio, Province of La Rioja.—Wines and anise brandy. 660

517 Dávila, Domingo, Province of La Rioja.—Wines. 660

518 Gordillo, Alcibiades, Province of La Rioja.—Wines. 660

519 Dávila, Guillermo, Province of La Rioja.—Wines. 660

520 Chaves, Crisologo, Province of La Rioja.—Wines and anise brandy. 660

521 Dávila, Nicolasa V. de, Province of La Rioja.—Wines. 660

522 Gonzalez, Zoraida Dávila de, Province of La Rioja.—Mint, coffee, orange, cocoa, and Peruvian bark, liquors. 660

523 Muro, Froilan, Province of Catamarca.—Wine. 660

524 Augier, Uladislao, Province of Catamarca.—Wine. 660

525 Lafone Queveda, Samuel A., Province of La Rioja.—Wines, cognac, and liquors. 660

526 Franco, Luis A., Province of Catamarca.—Wines. 660

527 Figueroa, Molas, & Co., Province of Catamarca.—Wine. 660

528 Narvaez, Dermidio, Province of Catamarca.—Wines and brandies. 660

529 Miranda, José A., Province of Catamarca.—Wine and brandy. 660

530 Figueroa, Manuel, Province of Catamarca.—Wine. 660

531 Cisnero, Juan B., Province of Catamarca.—Wine and brandy. 660

532 Teferina, Daniel, Province of Catamarca.—Wines. 660

533 Molina, Mardoqueo, Province of Catamarca.—Wine. 660

534 Ageret, H., Province of Corrientes.—Lime and orange liquors. 660

535 Villa, Luis, Province of Corrientes.—Sugar-cane juice. 660

536 Alzric, Antonio, Province of San Luis.—Soda water and lemonade. 660

537 Billar, Salvador, Province of Jupui.—Sugar-cane brandy. 660

538 Gibelli, S., Province of Entre-Rios.—Wine. 660

539 Clavarino, S., Province of Entre-Rios.—Wine. 660

540 Campora, A., Province of Entre-Rios.—Wine. 660

541 Conte Gran, Anselmo, Province of Entre-Rios.—Vermouth wine and elixir. 660

542 Costa, Luis, Province of Santa Fé.—Cognac, vermouth wine, and liquors. 660

543 Defagot, Cipriano, Province of Entre-Rios.—Peach liquor. 660

544 Magdelin, Fernando, Province of Santa Fé.—Beer. 660

545 Fontam, Luis T., Province of Santa Fé.—Anise liquor. 660

546 Bagley, M. S., & Co., Province of Buenos Ayres.—Biscuits and crackers. 661

546a Konig, Richard, & Co., Province of Buenos Ayres.—Sweetmeats. 661

547 Bromvers, Enrique, Province of Buenos Ayres.—Crackers and biscuits. 661

548 Masset, Gustavo, Province of Buenos Ayres.—Crackers. 661

Textile Substances of Vegetable or Animal Origin.

550 Rizo, Isidoro, Province of Catamarca.—Palo borracho cotton. 665

551 Provincial Commission, Province of Catamarca.—Cotton and raw palo borracho cotton. 665

551a Silva, Florentius, Province of Santa Fé.—Cotton. 665

552 Colina, J. N., Province of Rioja.—Cotton grown in Vinchina. 665

553 Dávila, Guillermo, Province of La Rioja.—Cotton. 665

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

553*a* Ledesma, Dr., Province of Tucuman.
a Cotton. 665
b Goat's hair. 669

554 Alvarez, Francisco, Province of La Rioja.—Cotton. 665

555 Wurffbain, Gustavo, Province of La Rioja.—Cotton. 665

556 Molina, Mardoqueo, Province of La Rioja.—Cotton and cotton pods. 665

557 Provincial Commission, Province of Salta.
a Cotton. 665
b Chaguar thread and bark, yuchan fibre. 666
c Bristle rope and fabrics for sieves. 669

557*a* Echevarria, Cecilio, Province of Santa Fé.
a Cotton. 665
b Angora wool. 667

558 Fava, Carlos, Province of Corrientes.—Cotton. 665

559 Bella Vista Sub-commission, Province of Corrientes.
a Raw cotton. 665
b Wool. 667

560 Commission of the Chaco Argentine Territory.—Cotton. 665

561 Provincial Commission, Province of San Luis.
a Cotton. 665
b Wool. 667

562 Invernizzo, John, & Toschini, J., Province of Entre-Rios.
a Cotton. 665
b Cocoons and spun silk. 668

563 Parana Commission, Province of Entre-Rios.
a Fibres and rope. 666
b Wild silk cocoons. 668

564 Provincial Commission, Province of Corrientes.—Ropes made of caraguatá fibre. 666

564*a* Posadas, G., Province of Buenos Ayres.—Fibre ropes, and lines. 666

655 Torres, Esteban N., Province of Corrientes.—Caraguatá fibres. 666

566 Gelabert, Miguel, Province of Corrientes.—Caraguatá fibre cord. 666

567 Roibon, Enrique, Province of Corrientes.—Caraguatá cord. 666

568 Lescano, José D., Province of Corrientes.—Caraguatá leaves. 666

569 Gelos, Martin, Province of La Rioja.—Feather-grass. 666

570 Carreras, Rosaura C., Province of Mendoza.—Chard thread. 666

571 Provincial Commission, Province of Mendoza.—Hemp and ropes. 666

572 Commission of the Province of Santiago del Estero.—Prepared chaguar fibre. 666

573 Billar, Salvador, Province of Jujui.—Chaguar and yuchan ropes. 666

574 Galarani, Carlos, Province of Buenos Ayres.—Spun flax and flax-straw. 666

575 Meyer, E., Province of Santa Fé.—Hemp. 666

576 Cataneo, Juan, Province of Santa Fé.—Raw flax. 666

577 Stegman, Jorge, Province of Buenos Ayres.—Wool. 667

577*a* Fortunny, Louis, Province of Buenos Ayres.—Wool. 667

578 Morgan, N., Province of Buenos Ayres.—Wool. 667

579 Peredieu & Bradley, Province of Buenos Ayres.—Wool. 667

579*a* Provincial Commission, Province of San Luis.—Wool. 667

580 Martinez & Laplaceta, Province of Buenos Ayres.—Wool. 667

581 Molina, Juan C., Province of Buenos Ayres.—Alpaca wool. 667

582 Guevara, Edelmira L. de, Province of Buenos Ayres.—Fleece of Angora goat. 667

583 Guerrero, Carlos T., Province of Buenos Ayres.—Wool. 667

584 Duportal, Emilio, Province of Buenos Ayres.—Wool. 667

585 Chas, Francisco, Province of Buenos Ayres.—Fleece of Negretti lamb. 667

586 Nazar & Co., Romulo, Province of Buenos Ayres.—Wool. 667

587 Latham, Wilfren, Province of Buenos Ayres.—Merino wool, etc. 667

588 Movas, José, Province of Buenos Ayres.—Wool. 667

589 Durand, Augusto, Province of Buenos Ayres.—Wool. 667

590 Castes, Mariano Artayeta, Province of Buenos Ayres.—Wool. 667

591 Unsué, Mariano, Province of Buenos Ayres.—Wool. 667

592 Classen, Enrique, Province of Buenos Ayres.—Wool. 667

593 Tucker, T. E. C., Province of Buenos Ayres.—Wool. 667

594 Iraizo, Geronimo, Province of Buenos Ayres.—Wool. 667

595 Frers, German, Province of Buenos Ayres.—Wool. 667

596 Justice of the Peace of Patagones, Province of Buenos Ayres.—Wool. 667

597 Clarke, Cárlos, Province of Buenos Ayres.—Wool. 667

598 Huergo, Aureliano, Province of Buenos Ayres.—Wool. 667

599 Valdes, Emiliano & Cipriano, Province of Buenos Ayres.—Wool. 667

600 Zubiaurre, Ovidio, Province of Buenos Ayres.—Wool. 667

601 Gutierrez, Gervasio, Province of Buenos Ayres.—Wool. 667

602 Perez, Enrique, Province of Buenos Ayres.—Wool. 667

603 Corrales, I. W., Province of Buenos Ayres.—Wool. 667

604 Gregoire, N., Province of Buenos Ayres.—Wool. 667

605 Provincial Commission of the Province of Buenos Ayres.—Wool. 667

606 Camblond, M., Province of Buenos Ayres.—Wool. 667

607 Bonnement, I. B., Province of Buenos Ayres.—Wool. 667

608 Bernard, Joaquin, Province of Buenos Ayres.—Wool. 667

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Textile Substances, Engineering and Administration.

609 Schweikart, Andrés, Province of Buenos Ayres.—Wool. 667

610 McClymont, Guillermo, Province of Buenos Ayres.—Wool. 667

611 Hale, Samuel B., Province of Buenos Ayres.—Wool. 667

612 Galarani, Carlos, Province of Buenos Ayres.—Wool. 667

613 Vazquez, Lucrecio, Province of Cordoba.—Wool. 667

614 Gomez, Fecundino, Province of Mendoza.—Wool. 667

615 Gonzalez, Daniel, Province of Mendoza.—Wool. 667

616 Davila, Bonifacio, Province of La Rioja.—Wool. 667

617 Gavino, Domingo, Province of Entre-Rios.—Wool. 667

618 Dennis, Francis Antonio, Province of Entre-Rios.—Wool. 667

619 Fuente, Gregorio F. de la, Province of Entre-Rios.—Wool. 667

620 Correa, Benito, Province of San Juan.—Wool. 667

621 Rodriguez, Estanislao, Province of San Juan.—Alpaca wool. 667

622 Zavalla, Lorenzo, Province of San Juan.—Angora wool. 667

624 Newton, Ricardo, Province of Buenos Ayres.—Silk, spun and in cocoons. 668

625 Peluffo, Angel, Province of Buenos Ayres.—Silk in cocoons. 668

625*a* Victorica, Henry, Province of Buenos Ayres.—Cocoons. 668

625*b* Massuchi, Martin, Province of Buenos Ayres.—Spun silk. 668

625*c* Sub-commission of San Carlos, Province of Santa Fé.—Spun silk. 668

625*d* Bequer, T., Province of Buenos Ayres.—Silk cocoons. 668

625*e* Pouyet, Miguel, Province of Mendoza.—Silk cocoons. 668

626 Justice of the Peace of San Vicente, Province of Buenos Ayres.—Horse-hair. 669

627 Provincial Commission, Province of Buenos Ayres.—Cow-hair. 669

628 Lagraña, Cipriano, Province of Buenos Ayres.—Angora hair. 669

Agricultural Engineering and Administration.

629 Carenon, E., & J. Lacroze, Province of Buenos Ayres.—Model of a pump. 680

630 Silveyra, Agustin, Province of Buenos Ayres.—Artificial manure. 681

631 Jacquemard, Victor, Province of Buenos Ayres.—Artificial manure. 681

632 Mujica, E. S., Province of San Juan.—Artificial manure from boiled and dried blood. 681

632*a* Provincial Commission, Province of Salta.
a Hair sieves. 224
b Horse-hair rope. 287

LIBERIA.

(*East Avenue, Columns 4 to 7.*)

COLLECTIVE EXHIBIT.

Minerals, Animal and Agricultural Products.

Morris, Edward S., & Co., St. Paul's River & Philadelphia, Pa.
a Iron ore. 100
b Fresh and sweet palm-oil hermetically sealed in glass jars, for medical and family use; palm-oil in casks; palm kernel oil; soap made of fresh and sweet palm-oil. 201
c Indigo. 202
d African curiosities. 312
e Coffee-hulling machinery. 585
f Cam-wood, hardwoods. 600
g Gums. 603
h Coffee, green and roasted; cocoa, ginger, and spices. 623
i Palm kernels. 624
j Ivory. 652
k Palm kernel meal. 657
l Arrow-root. 658
m Sugar. 659
n Cotton. 665
o Flax from the Island of St. Helena, ramie. 666

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

SPAIN.

(Nave, South of Main Transept, Columns 13, 14.)

Pomology.

Pomology.

1 Jover, Francisco, Alhama, Province of Almeria.—Grapes. 610

2 Daza y Ruiz, Francisco, Purchena, Province of Almeria.—Grapes. 610

3 Romero, Manuel Carbonero, Purchena, Province of Almeria.—Grapes. 610

4 Sanchez Bros. & Granados, Ochanes, Province of Almeria.—Grapes. 610

5 Ibañez, Luis Gallego, Cazorla, Province of Jaen.—Pears. 610

6 Economical Society of Friends of the Country, Valencia.—Paintings of grapes. 610

7 Bernabeu y Diego, Juan B., Jabea, Province of Alicante.—Almonds. 611

8 Scals, José, Jijona, Province of Alicante.—Almonds. 611

9 Piña, Juan Bautista, Monforte, Province of Alicante.—Almonds. 611

10 Soriano, Isidro Martinez, Monóvar, Province of Alicante.—Almonds. 611

11 Verdu y Perez, Joaquin, Monóvar, Province of Alicante.—Almonds. 611

12 Perez, Albert, & Co., Monóvar, Province of Alicante.—Almonds. 611

13 Feliù y Rodriguez, José, Benisa, Province of Alicante.—Almonds. 611

14 Linares, José Ramon, Albanchez, Province of Almeria.—Almonds. 611

15 Trell y Chacon, Miguel del, Berja, Province of Almeria.—Almonds. 611

16 Martin, Francisco Regaña, Cabeza, de Vaca, Province of Bajadoz.—Walnuts. 611

17 Feliù, Juan, Palma, Balearic Islands.—Almonds. 611

18 Wallès, Edmundo, Ibiza, Balearic Islands.—Almonds. 611

19 Fuster, Francisco, Palma, Balearic Islands.—Almonds. 611

20 Fuster, Miguel, Palma, Balearic Islands.—Almonds. 611

21 Mulet, Antonio, Palma, Balearic Islands.—Almonds. 611

22 Melian y Artiles, Matias, Las Palmas, Canary Islands.—Almonds. 611

23 Provincial Board of Agriculture, Castellon.—Walnuts and acorns. 611

24 Berruezo, José Antonio, Villarel, Province of Castellon.—Almonds. 611

25 Garcès, Vicente, Castellon.—Almonds. 611

26 Soldevilla, Tomàs Moragrega, Castellon.—Pomegranates. 611

27 Lara, Rafael J. de, Cordoba.—Oranges, lemons, and citrons. 611

28 Veja de Armijo, Marquis of, Cordoba.—Oranges and lemons. 611

29 Corporation of Palma del Rio, Province of Cordoba.—Walnuts. 611

30 Cabezas y Saravia, José, Cordoba.—Hazelnuts. 611

31 Cruz Durán, Juan de la, Aracena, Province of Huelva.—Walnuts and chestnuts. 611

32 Sala, Emilio de, Huelva.—Almonds. 611

33 Montemayor, Maria, Moguer, Province of Huelva.—Almonds. 611

34 Cueva, Fernando de la, Huelva.—Almonds. 611

35 Carnes, Eulogio Martin, Aracena. Province of Huelva.—Walnuts. 611

36 Caras, Serafin, Huesca.—Walnuts. 611

37 Moreno, Rufino, Cazorla, Province of Jaen.—Walnuts. 611

38 Bulnes, Francisco de Paula, Cazorla, Province of Jaen.—Walnuts. 611

39 Corporation of Ponferrada, Province of Leon.—Walnuts and chestnuts. 611

40 Corporation of Congosto, Province of Leon.—Chestnuts. 611

41 Fernandez, Tomás, Armunia, Province of Leon.—Walnuts. 611

42 Prado, Maximo Alonso, Leon.—Walnuts, chestnuts, and hazelnuts. 611

43 Agelèt, Ramon, Lérida.—Walnuts. 611

44 Jover, Luisa de, Province of Lerida.—Almonds. 611

45 Ignes, Pedro, Cervera, Province of Lerida.—Hazelnuts. 611

46 Corporation of Lorenzano, Province of Lugo.—Walnuts. 611

47 Quiroga Vasquez, Quiroga, Province of Lugo.—Chestnuts. 611

48 Huelin, Guillermo, & Son, Málaga.—Almonds. 611

49 Provincial Deputation, Múrcia.—Almonds. 611

50 Roca Bros., Múrcia.—Pomegranates. 611

51 Yañez, Francisco Vila, Viana, Province of Orense.—Chestnuts and walnuts. 611

52 Vaamonde, Ramon Maria, Puirgin, Province of Orense.—Chestnuts and walnuts. 611

53 Rey, Manuel Pereiro, Orense.—Hazelnuts. 611

54 Candedo, Manuel, Coles, Province of Orense.—Hazelnuts. 611

55 Diaz, Francisco, Trandeiras, Province of Orense.—Walnuts. 611

56 Rodriguez, Manuel Iglesias, Celanova, Province of Orense.—Fruits. 611

57 Provincial Board of Agriculture, Industry and Commerce, Oviedo.—Chestnuts, walnuts, and hazelnuts. 611

58 Rios, Eugenio Montero, Pontevedra.—Oranges, lemons, and citrons. 611

59 Brabo, Bernardo, Fregeneda, Province of Salamanca.—Almonds. 611

60 Paulino, Felipe Perez, Fregeneda, Province of Salamanca.—Almonds. 611

61 Hortal, Ignacio, Fregeneda, Province of Salamanca.—Almonds. 611

62 Garcia, José Sanchez, Fregeneda, Province of Salamanca.—Almonds. 611

63 Corbalan, Juan, Sancelle, Province of Salamanca.—Almonds. 611

64 Viesca, Marquis of, Fregeneda, Province of Salamanca.—Almonds. 611

65 Miguel, Ramon, Hinojosa, Province of Salamanca.—Almonds. 611

66 Rivero, Tomás, Hinojosa, Province of Salamanca.—Almonds. 611

67 Garrido, Juan, Valero, Province of Salamanca.—Walnuts. 611

68 Martin, Lorenzo Calvo, Mogarraz, Province of Salamanca.—Walnuts. 611

69 Bellido, Narciso, Zorita, Province of Salamanca.—Walnuts. 611

70 Sanchez, Antonio Capita, Mairena, Province of Sevilla.—Oranges. 611

71 Viñas, Antonio, Reus, Province of Tarragona.—Almonds. 611

72 Magriña, Antonio, Gandesa, Province of Tarragona.—Almonds. 611

73 Peira y Mach, Agustin, Scala Dei, Province of Tarragona.—Almonds, walnuts, and hazelnuts. 611

74 Franch & Segriá, Uldemolins, Province of Tarragona.—Hazelnuts. 611

75 Escoda, Antonio, Vilaseca, Province of Tarragona.—Hazelnuts. 611

76 Bufill, B., Reus, Province of Tarragona.—Almonds. 611

77 Gasull, Bartolomé, Province of Tarragona.—Almonds and hazelnuts. 611

78 Consul & Virgili, Tarragona.—Hazelnuts. 611

79 Domingo, Dimas, Reus, Province of Tarragona.—Almonds and raisins. 611

80 Prieto, Eusebio, Reus, Province of Tarragona.—Walnuts. 611

81 Gil, Francisco, Reus, Province of Tarragona.—Almonds and hazelnuts. 611

82 Pellicer, Francisco, Porrera, Province of Tarragona.—Almonds and hazelnuts. 611

83 Sostres, Francisco Reus, Province of Tarragona.—Hazelnuts. 611

84 Vigueres y Monlliò, Francisco, Uldemolins, Province of Tarragona.—Almonds. 611

85 Montaña, Francisco Roca, Cambrils, Province of Tarragona.—Almonds. 611

86 Margales, Francisco Escoda, Vandellós, Province of Tarragona.—Almonds. 611

87 Puigcercós y Anglès, Francisco, Ulldemolins, Province of Tarragona.—Almonds. 611

88 Llurba, Francisco, Uldemolins, Province of Tarragona.—Almonds. 611

89 Fumaña Bros., Reus, Province of Tarragona.—Almonds and hazelnuts. 611

90 Prius, Francisco, Reus, Province of Tarragona.—Hazelnuts. 611

91 Comas, Francisco, Reus, Province of Tarragona.—Hazelnuts. 611

92 Pfeiffer, Herman, Reus, Province of Tarragona.—Hazelnuts. 611

93 Coll, José, Valls, Province of Tarragona.—Walnuts. 611

94 Miret y Segriá, José, Uldemolins, Province of Tarragona.—Walnuts. 611

95 Domenech y Monte, José, Vilaseca, Province of Tarragona.—Almonds 611

96 Grau y Vilanova, José, María, Maspujols, Province of Tarragona.—Hazelnuts. 611

97 Anlestia, José, Ciurana, Dosaiguas, Province of Tarragona.—Hazelnuts. 611

98 Illas, José Montagut, Reus, Province of Tarragona.—Hazelnuts. 611

99 Forastè y Ferré, Juan, Vilaseca, Province of Tarragona.—Almonds. 611

100 Magriña, Luis, Falset, Province of Tarragona.—Hazelnuts. 611

101 Magriña, Manuel Serrano, Tibisa, Province of Tarragona.—Hazelnuts. 611

102 Artells, Miguel, Reus, Province of Tarragona.—Almonds and hazelnuts. 611

103 Bassedas y Andreu, Miguel, Reus, Province of Tarragona.—Hazelnuts. 611

104 Magriña, Mariano, La Selva, Province of Tarragona.—Hazelnuts. 611

105 Salvadó, Mateo, Tarragona.—Hazelnuts. 611

106 Abelló y Boada, Pablo, Barbara, Province of Tarragona.—Almonds, hazelnuts, walnuts, and pine-nuts. 611

107 Fausá, Pablo, La Canonja, Province of Tarragona.—Almonds and hazelnuts. 611

108 Sirvent y Oliver, Pedro, Reus, Province of Tarragona.—Almonds and hazelnuts. 611

109 Montoliu, Plácido Maria de, Tarragona.—Hazelnuts. 611

110 Anguera y Anglès, Falset, Province of Tarragona.—Hazelnuts and almonds. 611

111 Escolá y Franch, Ramon, Reus, Province of Tarragona.—Hazelnuts and almonds. 611

112 Monlleó, Ramon, Uldemolins, Province of Tarragona.—Almonds. 611

113 Siscar, Ramon, La Canonja, Province of Tarragona.—Hazelnuts. 611

114 Roy, Ponseti & Co., Tarragona.—Hazelnuts and almonds. 611

115 Soberano & Co., Reus, Province of Tarragona.—Hazelnuts and almonds. 611

116 Salvadó, Salvador, Riudoms, Province of Tarragona.—Hazelnuts. 611

117 Freixá, Sebastian, Reus, Province of Tarragona.—Hazelnuts. 611

Pomology, Agricultural Products.

118 Robres, Sebastian Garcia de, Scala Dei, Province of Tarragona.—Almonds. 611

119 Barcuys, Tomás, Maspujols, Province of Tarragona.—Hazelnuts. 611

120 Esteve, A., Widow & Son of, Reus, Province of Tarragona.—Hazelnuts, almonds, and walnuts. 611

121 Society of Agriculture, Valencia.—Walnuts and acorns. 611

122 Lassala y Palomares, Vicente, Masia de la mar.—Province of Valencia.—Almonds. 611

123 Fernandez, Tomás Vicente, Fuentesauco, Province of Zamora.—Walnuts. 611

124 Poey, Juan, Habana, Cuba.—Oranges. 611

Agricultural Products.

125 School of Agriculture, Vitoria, Province of Alava.—Cereals. 620

126 Maroni, José, Hellin, Province of Albacete.—Wheat. 620

127 Guerrero, José, Hellin, Province of Albacete.—Summer wheat. 620

128 Espinosa, Juan, Hellin, Province of Albacete.—Wheat. 620

129 Dios Aguado y Alarcon, Juan de, Corral Rubio, Province of Albacete.—Cereals. 620

130 Guevara, Vicente Ladron de, Tobara, Province of Albacete.—Wheat. 620

131 Ramos, Juan Bautista, Alicante.—Summer wheat. 620

132 Sellés, Joaquin, Elche, Province of Alicante.—Maize. 620

133 Gimenez, Fco Sanchez, Alicante.—Wheat. 620

134 Perez, Joaquin Verdú, Monóvar, Province of Alicante.—Wheat, barley, and maize. 620

135 Sanchez, José, Alicante.—Barley. 620

136 Gil, Joaquin, Alicante.—Wheat. 620

137 Scals, José, Gijona, Province of Alicante.—Wheat. 620

138 Linares, José Ramon, Albanchez, Province of Almeria.—Maize and wheat. 620

139 Daza, Francisco, Purchena, Province of Almeria.—Cereals. 620

140 Perez, Mariano Valverde, Fontiveros, Province of Avila.—Summer wheat. 620

141 Rodriguez, Francisco Mariano, Fontiveros, Province of Avila.—Barley. 620

142 Sainz, Matias, Donvidas, Province of Avila.—Summer wheat. 620

143 Coca, Juan de, Langa, Province of Avila.—Summer wheat and barley. 620

144 Sacristan, Tomás, Sinlabajos, Province of Avila.—Summer wheat. 620

145 Diaz, Gaspar, Cabezas del Pozo, Province of Avila.—Summer wheat. 620

146 Guerra, Blas, Cabezas del Pozo, Province of Avila.—Summer wheat. 620

147 Paradinas, José, Cabezas del Pozo, Province of Avila.—Summer wheat. 620

148 Rodriguez, Bernardo Nava, Langa, Province of Avila.—Summer wheat. 620

149 Paradinas, Gregorio, Bernuy Zapardiel, Province of Avila.—Winter barley. 620

150 Astorga, Pedro Gonzalez, Gutierrez Muñoz, Province of Avila.—Winter barley. 620

151 Astorga, Agapito Gonzalez, Gutierrez Muñoz, Province of Avila.—Summer wheat. 620

152 Rodriguez, Roberto, Villamayor, Province of Avila.—Summer wheat. 620

153 Garcia, Isidro Sanchez, Horcajo de las Torres, Province of Avila.—Summer wheat. 620

154 Calafate, Antolin Fernandez, Horcajo de las Torres, Province of Avila.—Summer wheat. 620

155 Lambas, Manuel, Palacios de Goda, Province of Avila.—Summer wheat. 620

156 Saiz, Cleto Lopez, Palacios de Goda, Province of Avila.—Summer wheat. 620

157 Castro, Eusebio Ramiro, Arévalo, Province of Avila.—Summer wheat. 620

158 Navajas, Felipe Saenz, Arévalo, Province of Avila.—Summer wheat. 620

159 Moreno, Cayetano, Villalba de los Barros, Province of Badajoz.—Wheat and barley. 620

160 Rebollo, Demetrio, Cabeza de Vaca, Province of Badajoz.—White wheat. 620

161 Molano, Pedro, Badajoz.—Wheat and barley. 620

162 Gregori, Tomás, Badajoz.—Wheat and barley. 620

163 Venegas, Juan, Valle de Matamoras, Province of Badajoz.—Wheat. 620

164 Lopo, Casimiro, Badajoz.—Wheat and barley. 620

165 Lopo, Felix, Badajoz.—Wheat and barley. 620

166 Amador, Alfonse, Guareña, Province of Badajoz.—Red wheat. 620

167 Sanchez, María Romero, Cabeza de Vaca, Province of Badajoz.—Lammas wheat and barley. 620

168 Ortiz, Eugenio, Villagarcia, Province of Badajoz.—Wheat, barley, and oats. 620

169 Moreno, José Salvador, Cabeza de Vaca, Province of Badajoz.—Oats. 620

170 Borrallo, María, Cabeza de Vaca, Province of Badajoz.—Rye. 620

171 Soler y Siguier, José, Mahon, Balearic Islands.—Summer wheat. 620

172 Detlós, Gertrudis de, Ripoll, Province of Barcelona.—Maize. 620

173 Vila, Juan, Martorell, Province of Barcelona.—Wheat. 620

174 Bosh y Gausa, Luis, Barcelona.—Wheat. 620

175 Subirach, Mariano, Vich, Province of Barcelona.—Barley. 620

176 Gariga, Francisco Domingo, San Quirse de Basora, Province of Barcelona.—Cereals. 620

177 Dodero y Ponte, Josè, Pomar de Badalona, Province of Barcelona.—Carrobs. 621

178 Gordojueta, Remigio, Miranda de Ebro, Province of Burgós.—Red wheat. 620

179 Abad, Gregorio, Aranda de Duero, Province of Burgós.—White wheat. 620

180 Villanueva, Felipe de, Carcedo de Burgós, Province of Burgós.—Wheat. 620

181 Moral, Santiago, & Bros., Burgós. —Lammas wheat. 620

182 Mate, Antonio, Burgós.—Wheat. 620

183 Gonzalez, Dionisio, La Molina, Province of Burgós.—Wheat. 620

184 Horcajo, Marcos, Lerma, Province of Burgós.—Wheat and rye. 620

185 Quintana y Ruiz, Fidel, Burgós. —Cereals. 620

186 Fernandez, Primitivo, Burgós.—Winter barley. 620

187 Alonso, Julian, Lerma, Province of Burgós.—Common barley. 620

188 Provincial Deputation, Burgós.—Oats. 620

189 Corporation of Miranda de Ebro, Province of Burgós.—Maize. 620

190 Beson, Eduardo A. de, Burgós.—White maize. 620

191 Provincial Commission of Miranda de Ebro, Burgós.—Red and summer maize. 620

192 Roman, Simon, Cáceres.—Cereals. 620

193 Lubian, Saturnino, Plasenzuela, Province of Cáceres.—Wheat and barley. 620

194 Perez y Romero, Francisco Garcia, Jerez de la Frontera, Province of Cadiz. —Canary seed, St. Peter's corn, and maize. 620

195 Pley y Bondigue, Francisco, Puerto-Real, Province of Cadiz.—Maize. 620

196 Corporation of Chiclana, Province of Cadiz.—Wheat, barley, and maize. 620

197 Corporation of Tarifa, Province of Cadiz.—Wheat, barley, and canary seed. 620

198 Vega Grande, Count of, Las Palmas, Canary Islands.—Maize. 620

199 Society of Friends of the Country, Las Palmas, Canary Islands.—Maize. 620

200 Ponce de Leon, Juan, Las Palmas, Canary Islands.—Cereals. 620

201 Provincial Commission of Tenerife, Canary Islands.—Cereals. 620

202 Escribano, José, Vinaróz, Province of Castellon.—Carrobs. 621

203 Provincial Board of Agriculture, Castellon.—Cereals. 620

204 Rubisco, Cayetano Clemente, Ciudad-Real.—Wheat and barley. 620

205 Cabezuelas, Count of, Campo de Criptana, Province of Ciudad-Real.—Cereals. 620

206 Loro, Francisco, Daimiel, Province of Ciudad-Real.—Maize. 620

207 Sanchez, Sotero, Daimiel, Province of Ciudad-Real.—Panic-grass. 620

208 Criado, José Gomez, Villa del Rio, Province of Córdoba.—Wheat. 620

209 Corporation of Cabra, Province of Córdoba.—Wheat. 620

210 Valverde, Francisco, Aguilera, Priego, Province of Córdoba.—Wheat. 620

211 Priego, Rafael Molina, Province of Córdoba.—Wheat. 620

212 Sarmiento, Antonio Alba, Priego, Province of Córdoba.—Wheat. 620

213 Serrano, Tomás, Priego, Province of Córdoba.—Wheat. 620

214 Vallejo, Rafael, Córdoba.—Wheat. 620

215 Corporation of Bujalance, Province of Córdoba.—Black wheat. 620

216 Escribano, Luis, Pozoblanco, Province of Córdoba.—Wheat. 620

217 Prieto, Sabastian, Encinas-Reales, Province of Córdoba.—Wheat. 620

218 Ariza y Ariza, José, Baena, Province of Córdoba.—Wheat. 620

219 Gimenez, José Maria, Baena, Province of Córdoba.—Wheat. 620

220 Navarro, Rafael, Córdoba.—Barley and wheat. 620

221 Hoces, Ana de, Córdoba. — Black wheat. 620

222 Galan, Alfonso Blanco, Dos Torres, Province of Córdoba.—Wheat. 620

223 Matilla, Carlos, Córdoba.—Wheat. 620

224 Conde, Juan, Córdoba. — Canary-seed, wheat, and barley. 620

225 Corporation of Lucena, Province of Córdoba.—Wheat. 620

226 Cabanar y Blanco, Rafael, Córdoba. —Barley. 620

227 Estrada, Ramon, Córdoba.—Wheat and barley. 620

228 Puentes y Roldan, Felipe, Córdoba. —Barley. 620

229 Santalò, Estéban, Córdoba.—Wheat. 620

230 Fernandez, Antonio, Córdoba. — Wheat. 620

231 Barbudo, Francisco de P., Córdoba. —Barley and wheat. 620

232 Barrionueva, Fernando, Córdoba. —Black wheat and barley. 620

233 Sisternes, Manuel, Córdoba.—Black wheat. 620

234 Carmona, Salvador, Montemayor, Province of Córdoba.—Wheat. 620

235 Fernandez, Gumersindo, Hinojosa, Province of Córdoba.—Red wheat. 620

236 Sanchez, Manuel, Belmez, Province of Córdoba.—Wheat. 620

237 Aurea y Rivera, Antonio, Belmez, Province of Córdoba.—Wheat. 620

238 Pacheco, Rafael Granados, Benameji, Province of Córdoba.—Barley. 620

239 Velasco, Bernardo Dominguez, Benameji, Province of Córdoba.—Wheat. 620

240 Corporation of Hornachuelos, Province of Córdoba.—Wheat. 620

241 Malgarejo, Maria Josefa, San Clemente, Province of Córdoba.—Wheat. 620

Agricultural Products.

242 Plaza y Garrejo, Felipe, Villarejo de Fuentes, Province of Cuenca.—Wheat. 620

243 Redondo, Peregrin, Valverde de Júcar, Province of Cuenca.—Wheat. 620

244 Bautista, Mariano, Olmedilla de Alarcon, Province of Cuenca.—Wheat. 620

245 Torre, Pablo de la, Tarancon, Province of Cuenca.—Summer wheat. 620

246 Salazar y Cuebas, Pio, Santa Maria de los Llanos, Province of Cuenca.—Summer wheat. 620

247 Melgarejo, Manuel, San Clemente, Province of Cuenca.—Summer wheat. 620

248 Hellin, Desiderio, San Clemente, Province of Cuenca.—Summer wheat. 620

249 Bruse, José Maria, Cuenca.—Common barley. 620

250 Massó y Soler, Félix, Blanes, Province of Gerona.—Wheat and maize. 620

251 Marti, Diego Garcia, Guadalajara.—Wheat. 620

252 Muñoz, Marcelino, Sigüenza, Province of Guadalajara.—Wheat and barley. 620

253 Medrano, Félix, Guadalajara.—Barley. 620

254 Reyes y Rich, Juan A., Guadalajara.—Barley. 620

255 Lopez, José María, Huelva.—Wheat and white maize. 620

256 Riera y Fernandez, José, Huelva.—Wheat. 620

257 Soldán, Antonio, La Palma, Province of Huelva.—Wheat and barley. 620

258 Carrasco, José María, Bonares, Province of Huelva.—Wheat. 620

259 Cerero y Barreda, Emilio, Trigueros, Province of Huelva.—Wheat. 620

260 Orta, Pedro de, Cartaya, Province of Huelva.—White maize. 620

261 Vargas, José Rafael, Escacena del Campo, Province of Huelva.—Wheat. 620

262 Lanzas, Juan Antonio, Alcubierre, Province of Huesca.—Red wheat. 620

263 Gabarres, Mariano, Alcubierre, Province of Huesca.—Red wheat. 620

264 Gabarres, José, Alcubierre, Province of Huesca.—Red wheat. 620

265 Lapiedra, Joaquin, Sariñena, Province of Huesca.—Red wheat. 620

266 Lasierra, Francisco, Pallazueia, Province of Huesca.—Red wheat. 620

267 Lasierra, Joaquin, Pallazuela, Province of Huesca.—Summer wheat. 620

268 Otal, José Maria, Castillo de Carbino, Province of Huesca.—Wheat, maize, and barley. 620

269 Nasarre, Voto, Lupiñen, Province of Huesca.—Red wheat. 620

270 Altemir, José, Sariñena, Province of Huesca.—Red wheat. 620

271 Oliver, D. L., Huesca.—Hard wheat, black oats, and barley. 620

272 Villalta y Uribe, Antonio Fernandez, Torre, Don Gimeno, Province of Jaen.—Wheat. 620

273 Herreros, Juan Ignacio, Iznatoraf, Province of Jaen.—Wheat. 620

274 Abolaña, Antonio Diaz, Jaen.—Yellow maize. 620

275 Anievas, Justo María, Jaen.—White maize. 620

276 Jontoja, Manuel, Jaen.—Wheat. 620

277 Prado, Maximo Alonso, Leon.—Cereals. 620

278 Nuñez, Lino, Sahagun, Province of Leon.—Lammas wheat. 620

279 Santos, Pablo, Fuentes de los Oteros, Province of Leon.—Summer and lammas wheat. 620

280 Corporation of Pajares de Oteros, Province of Leon.—Barley and rye. 620

281 Corporation of Valdefresno, Province of Leon.—Wheat, barley, and rye. 620

282 Corporation of Valverde del Camino, Province of Leon.—Wheat, barley, and rye. 620

283 Corporation of Vega de Infanzones, Province of Leon.—Barley and rye. 620

284 Corporation of Arganza, Province of Leon.—Wheat, barley, and rye. 620

285 Corporation of Mansilla Mayor, Province of Len.—Wheat, barley, and rye. 620

286 Corporation of Mansilla de las Mulas, Province of Leon.—Wheat, barley, and rye. 620

287 Corporation of Congosto, Province of Leon.—Wheat, barley, and rye. 620

288 Corporation of Ponferrada, Province of Leon.—Wheat, barley, and rye. 620

289 Fernandez, Tomás, Armunia, Province of Leon.—Wheat, barley, and rye. 620

290 Corporation of Páramo del Sil, Province of Leon.—Maize. 620

291 Corporation of Encinedo, Province of Leon.—Rye. 620

292 Corporation of Magaz, Province of Leon.—Rye. 620

293 Corporation of Omaña, Province of Leon.—Wheat. 620

294 Alós, Francisco, Balaguer, Province of Lérida.—Wheat. 620

295 Oliveres, Mauricio, Torreserona, Province of Lérida.—Wheat. 620

296 Lafont, Andrés, Borjar, Province of Lérida.—Wheat. 620

297 Lopez, Manuel, Puigvert, Province of Lérida.—Barley. 620

298 Ball, José, Agramunt, Province of Lérida.—Barley and wheat. 620

299 Ron, Ramon, Vinaixa, Province of Lérida.—Wheat. 620

300 Viela, Ramon Terez de, Tòrrega, Province of Lérida.—Barley. 620

301 Andreu, Roque, Tòrrega, Province of Lérida.—Wheat. 620

302 Jover, Luisa de, Tòrrega, Province of Lérida.—Wheat. 620

303 Corporation of Agramunt, Province of Lérida.—Wheat and barley. 620

304 Corporation of Puigvert, Province of Lérida.—Barley. 620

305 Corporation of Vinaixa, Province of Lérida.—Wheat. 620

Agricultural Products.

306 Corporation of Las Borjas, Province of Lérida.—Wheat. 620

307 Pinós, José Maria, Malpartida, Province of Lérida.—Common wheat. 620

308 Paradela, Domingo, Castroverde, Province of Lugo.—Barley and rye. 620

309 Laje, Domingo Antonio, Corgo, Province of Lugo.—Rye. 620

310 Vasquez, José Leoncio, Mondoñedo, Province of Lugo.—Husked maize. 620

311 Freire, Manuel Soto, Panton, Province of Lugo.—Maize. 620

312 Ferreiro y Hermida, Antonio, Alfox, Province of Lugo.—Yellow maize. 620

313 Armesto, Ramon, Puebla del Brollon, Province of Lugo.—Wheat. 620

314 Corporation of Lorenzana, Province of Lugo.—Yellow maize. 620

315 Legaspi, Juan, Villalba, Province of Lugo.—Rye. 620

316 Pallares, Count of, Villalba, Province of Lugo.—Wheat. 620

317 Montenegro, Manuel Pardo, Fox, Province of Lugo.—Yellow maize. 620

318 Pillado, Eliseo Martinez, Fox, Province of Lugo.—Wheat and early maize. 620

319 Martinez, Ramon Antonio, Sarria, Province of Lugo.—Yellow maize, wheat, and barley. 620

320 Mendez, José Perez, Sober, Province of Lugo.—Barley and wheat. 620

321 Calatrava, Francisco Garcia, Alcobendas, Province of Madrid.—Wheat, barley, and oats. 620

322 Gago, Juan Borrego, Ronda, Province of Malaga.—Wheat. 620

323 Romero, Joaquin Perez, Santa Maria de la Rabida, Province of Orense.—Cereals. 620

324 Rodriguez, Manuel Iglesias, Celanova, Province of Orense.—Cereals. 620

325 Rey, Manuel Pereiro, Province of Orense.—Cereals. 620

326 Diaz, Francisco, Trandeiras, Province of Orense.—Rye. 620

327 Vila, Francisco, Viana del Bollo, Province of Orense.—Rye. 620

328 Vaamonde, Ramon María, Pungin, Province of Orense.—Maize. 620

329 Romero y Romero, José, Ginzo de Limia, Province of Orense.—Rye. 620

330 Anta, Ignacio, Orense.—Rye and maize. 620

331 Iglesias, Ramon, Beiro, Province of Orense.—Rye and maize. 620

332 Board of Agriculture, Industry, and Commerce, Oviedo.—Wheat and maize. 620

333 Durango, Manuel Martinez, Palencia.—Barley. 620

334 Gregorio, Sotero, Palencia.—Wheat and barley. 620

335 Gutierrez, Juan Francisco, Palencia, —Wheat and barley. 620

336 Dominguez, Miguel, Palencia.—Barley. 620

337 Sevilla, José, Fuentes de Nava, Province of Palencia.—Wheat. 620

338 Rodriguez, Tomás, Fuentes de Nava, Province of Palencia.—Wheat. 620

339 Pombo, Pedro, Fuentes de Nava, Province of Palencia.—Wheat 620

340 Solorzano, Juan, Baltanas, Province of Palencia.—Oats. 620

341 Gutierrez, Simon, Monzon, Province of Palencia.—Rye. 620

342 Tabarés, Federico Rodriguez, Torremormojon, Province of Palencia.—Wheat. 620

343 Escudero, Felipe, Cisneros, Province of Palencia.—Wheat. 620

344 Herrero, Agustin, Mazariegos, Province of Palencia.—Wheat. 620

345 Herrero, Pedro Romero, Amuscol, Province of Palencia.—Wheat. 620

346 Prieto, Basilio, Herrero, Herrera de Valdecañas, Province of Palencia.—Wheat. 620

347 Monedero, Joaquin, Cevico de la Torre, Province of Palencia.—Wheat. 620

348 Palacin, Deogracias, Palenzuela, Province of Palencia.—Wheat. 620

349 Piñeiro, Ramon Somoza, Merza, Province of Pontevedra.—Cereals. 620

350 Onis, Federico, Cantalapiedra, Province of Salamanca.—Cereals. 620

351 Peña, Josefa Gonzalez de la, Mancera de Abajo, Province of Salamanca.—Wheat. 620

352 Cabrera, Victoriano, Cantalapiedra, Province of Salamanca.—Wheat. 620

353 Bellido, Narciso, Zorita de la Frontera, Province of Salamanca.—Wheat. 620

354 Blazquez, Agustin, Tordillos, Province of Salamanca.—Wheat. 620

355 Rodriguez, Zacarias, Cantalapiedra, Province of Salamanca.—Wheat, barley, and rye. 620

356 Merino, Miguel, Cordobilla, Province of Salamanca.—Wheat. 620

357 Pineda, Eduardo de, Los Huelmos, Province of Salamanca.—Wheat and barley. 620

358 Fuentes, José, La Pinilla, Province of Salamanca.—Wheat and rye. 620

359 Rodriguez, Julian, Doñinos, Province of Salamanca.—Wheat and barley. 620

360 Sanchez, Francisco, Las Torres, Province of Salamanca.—Wheat. 620

361 Martin, Saturnino, Cilleros el Hondo, Province of Salamanca.—Wheat. 620

362 Hernando y Nieto, Francisco, Bóveda del Rio al Mar, Province of Salamanca.—Wheat. 620

363 Paradinas, Acacio, Cantalapiedra, Province of Salamanca.—Wheat and barley. 620

364 Mulas, Sinforiano, Villar de Gallimazo, Province of Salamanca.—Wheat. 620

365 Martin, Santiago, Tarazona, Province of Salamanca.—Wheat. 620

366 Perez, Domingo, Aldeatejada, Province of Salamanca.—Wheat. 620

367 Andrés, Leon, Tarazona, Province of Salamanca.—Wheat. 620

Agricultural Products.

368 Mayoral, Andrés, Los Huelmos, Province of Salamanca.—Wheat. 620

369 Garcia, Rafael, Cantalapiedra, Province of Salamanca.—Summer wheat and barley. 620

370 Toribio, Antonio Martin, Villares de la Reina, Province of Salamanca.—Summer wheat and barley. 620

371 Corporation of Vetigudino, Province of Salamanca.—Wheat. 620

372 Mozas, Antonio Alfonso de las, Province of Salamanca.—Summer wheat. 620

373 Poveda, Paulino, Pedroso, Province of Salamanca.—Lammas wheat, barley, and rye. 620

374 Delgado, Miguel Gonzalez, Ragama, Province of Salamanca.—Summer wheat. 620

375 Terreros, Santiago Juanes, Villares de la Reina, Province of Salamanca.—Summer wheat. 620

376 Diaz, Gaspar, Villaflores, Province of Salamanca.—Summer wheat. 620

377 Liaño, Martin Gomez de, Peñaranda de Bracamonte, Province of Salamanca.—Summer wheat. 620

378 Hernandez, Antonio, Malpartida, Province of Salamanca.—Summer wheat. 620

379 Escribano, Francisco, Dehesa de Terrados, Province of Salamanca.—Summer wheat. 620

380 Marcos, Estéban, Parada de Rubiales, Province of Salamanca.—Summer wheat. 620

381 Carbayo, Luis, San Cristobal de la Cuesta, Province of Salamanca.—Summer wheat. 620

382 Samaniego, Manuel García, Salamanca.—Summer wheat. 620

383 Sanchez, Felipe Perez, Fregenada, Province of Salamanca.—Summer wheat. 620

384 Paulino, Diego Perez, Fregenada, Province of Salamanca.—Wheat. 620

385 Garcia, Angel, Cantalapiedra, Province of Salamanca.—Barley. 620

386 Torre Ajero, Mariano & Cipriano de la, Arollo de Cuellar, Province of Segovia.—Wheat, rye, and barley. 620

387 Gonzalez, Ezequiel, Segovia.—White wheat. 620

388 Lopez, Mariano, Balisa, Province of Segovia.—Wheat and barley. 620

389 Satnyen, Pedro, Riaza, Province of Segovia.—Cereals. 620

390 Hernandez, Juan, Villacastin, Province of Segovia.—Lammas wheat. 620

391 Gordo, Feliciano, Villacastin, Province of Segovia.—Summer wheat. 620

392 Palatin y Moreno, Fernando, Sevilla.—Maize. 620

393 Andrade, Manuel Zayas, Arahal, Province of Sevilla.—Wheat. 620

394 Gonzalez, Rafael, Sevilla.—Maize. 620

395 Miura y Fernandez, Bentonto, Sevilla.—Seed wheat. 620

396 Pantion, Manuel Fernandez, Sevilla.—Maize. 620

397 Ojeda y Gomez, Juan, Sevilla.—Maize. 620

398 Maza, Juan Gomez de la, Olivares, Province of Sevilla.—Barley. 620

399 Silva y Perez, José, Olivares, Province of Sevilla.—Maize. 620

400 Perez, José, Olivares, Province of Sevilla.—Barley. 620

401 Ojeda, Juan Maria Rodriguez, Olivares, Province of Sevilla.—Wheat. 620

402 Cotan y Muñoz, Manuel, Olivares, Province of Sevilla.—Wheat. 620

403 Cotan, Antonio Garcia, Olivares. Province of Sevilla.—Wheat. 620

404 Estrada y Lasarte, Manuel, Osuna, Province of Sevilla.—Barley. 620

405 Ramirez, Manuel Tamayo, Osuna, Province of Sevilla.—Barley. 620

406 Castro y Torres, Francisco, Osuna, Province of Sevilla.—Wheat. 620

407 Morillas, Ramon Farfán, Cantillana, Province of Sevilla.—Wheat. 620

408 Rivas y Morillas, Antonio, Cantillana, Province of Sevilla.—Barley. 620

409 Teruel, Pedro, & Bro., Cantillana, Province of Sevilla.—Wheat. 620

410 Sanchez, Benito Navarro, Mairena del Alcor, Province of Sevilla.—Wheat. 620

411 Lozano, Manuel Seda, Mairena de Alcor, Province of Sevilla.—Barley. 620

412 Mendez, Antonio, Mairena del Alcor, Province of Sevilla.—Seed wheat. 620

413 Puente, Salvador & Alejandro Linares, Burguillos, Province of Sevilla.—Wheat. 620

414 Martinez Sainz Bros., Sevilla.—Wheat. 620

415 Caso-Galindo, Count of, Carmona, Province of Sevilla.—Wheat. 620

416 Dos Fuentes, Viscount of, Carmona, Province of Sevilla.—Wheat. 620

417 Vallejo, José, Mairena del Alcor, Province of Sevilla.—Canary seed. 620

418 Rosa y Silva, José de la, Villamanrique, Province of Sevilla.—Maize. 620

419 Puig, Juan, La Rinconada, Province of Sevilla.—Seed wheat. 620

420 Alba, Diego Sanchez, Lebrija, Province of Sevilla.—Summer wheat. 620

421 Vasquez y Rodriguez, Ignacio, Aznalácazar, Province of Sevilla.—Barley and wheat. 620

422 Mendez, Felipe, Mairena del Alcor, Province of Sevilla.—Wheat and barley. 620

423 Auñon y Leon, Antonio, Moron, Province of Sevilla.—Wheat and barley. 620

424 Villalón y Torres, Andrés, Moron, Province of Sevilla.—Barley and canary seed. 620

425 Amores, Manuel, Salteras y Olivares, Province of Sevilla.—Barley and St. Peter's corn. 620

426 Serrano, Miguel Perez, Olivares, Province of Sevilla.—Wheat. 620

427 Leon, Manuel Gimenez, Carmona, Province of Sevilla.—Wheat. 620

428 Orejuela, Joaquin de, Utrera, Province of Sevilla.—Wheat, barley, and maize. 620

429 Búrgos, Felipe de, Utrera, Province of Sevilla.—Wheat, barley, and maize. 620

430 Rivas, Pedro, Utrera, Province of Sevilla.—Wheat. 620

431 Cuadra, Enrique de la, Utrera, Province of Sevilla.—Cereals. 620

432 Cuéllar, José Antonio, Utrera, Province of Sevilla.—Wheat, barley, and maize. 620

433 Riarola, Rafael, Utrera, Province of Sevilla.—Wheat and barley. 620

434 Crespo, Rafael, Utrera, Province of Sevilla.—Wheat and barley. 620

435 Saavedra, Francisco, Utrera, Province of Sevilla.—Wheat. 620

436 Dominguez, Pedro, Utrera, Province of Sevilla.—Maize. 620

437 Royo, Damian, Soria.—Wheat. 620

438 Corporation of Villar de Maya, Province of Soria.—Wheat, barley, and oats. 620

439 Corporation of Almanzan, Province of Soria.—Wheat, rye, and barley. 620

440 Gimenez, Justo, Valderrodilla, Province of Soria.—Wheat. 620

441 Corporation of Rioseco, Province of Soria.—Wheat. 620

442 Corporation of Baraona, Province of Soria.—Wheat and barley. 620

443 Carretero, Pedro, Utrilla, Province of Soria.—Wheat. 620

444 Ballano, Faustino, Aguaviva, Province of Soria.—Wheat. 620

445 Velasco, Francisco, Aguaviva, Province of Soria.—Lammas wheat. 620

446 Flour Association of Reus, Province of Tarragona.—Wheat. 620

447 Virgili, Pablo, Tarragona.—Urgel wheat, maize, barley, oats, and millet. 620

448 Plana, Antonio, & Bro., Reus, Province of Tarragona.—Wheat. 620

449 Sedo, Juan Vilanova, Reus, Province of Tarragona.—Wheat. 620

450 Avila & Marti, Reus, Province of Tarragona.—Wheat. 620

451 Saperas, Francisco, Reus, Province of Tarragona.—Wheat. 620

452 Marti, Bornas & Co., Reus, Province of Tarragona.—Wheat. 620

453 Forasté y Ferré, Juan, Villaseca, Province of Tarragona.—Wheat. 620

454 Jausa, Pablo, La Canonja, Province of Tarragona.—Maize. 620

455 Domingo, Dimas, Reus, Province of Tarragona.—Maize and barley. 620

456 Gatell y Folch, Juan, Altafulla, Province of Tarragona.—Maize. 620

457 Mas Blanch, Julio C. de Esteve de, Amposta, Province of Tarragona.—Rice. 620

458 Corporation of Amposta, Province of Tarragona.—Rice. 620

459 Bignell, Jaime, San Carlos de la Rapita, Province of Tarragona.—Rice. 620

460 Soxias y Domenech, Juan, Villaseca, Province of Tarragona.—Maize. 620

461 Oller, Pedro, Reus, Province of Tarragona.—Maize. 620

462 Montaner, Amalio, Reus, Province of Tarragona.—Panic grass. 620

463 Margenat, Antonio Bages, Reus, Province of Tarragona.—Millet. 620

464 Barenys y Magriñá, Juan Bautista, Villaseca, Province of Tarragona.—Barley. 620

465 Fonts, Mariano, Reus, Province of Tarragona.—Barley. 620

466 Moreno, Manuel Ortiz, Ocaña, Province of Toledo.—Wheat, barley, and oats. 620

467 Fernandez, Manuel, Tembleque, Province of Toledo.—Wheat. 620

468 Pasaran, Isidoro, Olias del Rey, Province of Toledo.—Wheat. 620

469 Esteban, Francisco, Toledo.—Summer wheat. 620

470 Negrete, Acisclo Fernandez, Villatobas, Province of Toledo.—Wheat and barley. 620

471 Serrano y Fernandez, Federico, Madridejoz, Province of Toledo.—Summer wheat. 620

472 Mejia, Isaac, Ocaña, Province of Toledo.—Summer wheat and barley. 620

473 Redondo, Juan Bautista, Carmena, Province of Toledo.—Wheat and barley. 620

474 Indo, Valentin Martinez, Arges, Province of Toledo.—Summer wheat. 620

475 Campo, Victoriano Martin del, Madridejos, Province of Toledo.—Summer wheat. 620

476 Diego, Fabian de, Guadamur, Province of Toledo.—Summer wheat. 620

477 Ortiz, Rufo Moreno, Escalonilla, Province of Toledo.—Summer wheat. 620

478 Perez, Luis, Toledo.—Summer wheat. 620

479 Huelbes y Ortiz, Emilio de, Ocaña, Province of Toledo.—Summer wheat and oats. 620

480 Arrue, Miguel, Benaguacil, Province of Valencia.—Wheat. 620

481 Reig y Garcia, Fernando, Puebla de Vallbona, Province of Valencia.—Wheat and maize. 620

482 Lasala y Palomares, Vicente, Masia de la Mar, Province of Valencia.—Wheat and yellow maize. 620

483 Agricultural Society of Valencia, Valencia.—Rice, maize, barley, and oats. 620

484 Valdovi, Rafael Gonzalez, Torrente, Province of Valencia.—Maize. 620

485 Ferrandis y Soler, José, Onteniente, Province of Valencia.—Maize. 620

486 Montealegre, Widow & Son of, Medina del Campo, Province of Valladolid.—Common wheat. 620

487 Corporation of Medina del Campo, Province of Valladolid.—Common red wheat. 620

488 Rico, Antonio Ceinos, Fontihoyuelo, Province of Valladolid.—Common red wheat. 620

489 Monedero, Eusebio, Valoria la Buena, Province of Valladolid.—Wheat. 620

Agricultural Products.

490 Monedero, Ventura, Valoria la Buena, Province of Valladolid.—Summer wheat. 620

491 Lozano, Juan, Molacillo, Province of Zamora.—Summer wheat. 620

492 Silva, Genaro, Montamarta, Province of Zamora.—Wheat. 620

493 Falcon, Felipe, Benavente, Province of Zamora.—Wheat. 620

494 Alejano, Salvador Fernandez, Fuentesauco, Province of Zamora.—Summer wheat. 620

495 Temprano, José, Vardemarban, Province of Zamora.—Summer wheat. 620

496 Marron, José Victor, Alcañices, Province of Zamora.—Wheat. 620

497 Rodriguez y Rodriguez, Fernando, Villamayor, Province of Zamora.—Wheat. 620

498 Vecinos, Isidoro, Molacillos, Province of Zamora.—Wheat and barley. 620

499 Garcia, Miguel, Fuentes Pradas, Province of Zamora.—Summer wheat and common barley. 620

500 Angas, Francisco, Candasnos, Province of Zaragoza.—Wheat. 620

501 Sasót, Joaquin, Candasnos, Province of Zaragoza.—Wheat. 620

502 Grós, José Avio, Candasnos, Province of Zaragoza.—Wheat. 620

503 Claver, Marianó, Peñalba, Province of Zaragoza.—Wheat. 620

504 Rosas, Manuel, Bujaraloz, Province of Zaragoza.—Summer and acclimated wheat and rye. 620

505 Rozas, Eusebio, La Almolda, Province of Zaragoza.—Wheat. 620

506 Sampér, Joaquin, Bujaraloz, Province of Zaragoza.—Wheat. 620

507 Grós, Mariano, Bujaraloz, Province of Zaragoza.—Wheat. 620

508 Peisen, José J., Balfarta, Province of Zaragoza.—Wheat. 620

509 Pállas, José, Bujaraloz, Province of Zaragoza.—Wheat. 620

510 Escamilla, Segundo, Bujaraloz, Province of Zaragoza.—Wheat. 620

511 Buil, José, Castejon de Monegros, Province of Zaragoza.—Wheat. 620

512 La Viñaza, Count of, Epila, Province of Zaragoza.—Wheat. 620

513 Loring Bros., Malaga.—Wheat. 620

514 School of Agriculture, Vitoria, Province of Alava.—Leguminous plants and esculent vegetables. 621

515 Aguado, Juan de Dios, Corral Rubio, Province of Albacete.—Lentils and blue vetch. 621

516 Ruiz, Santiago, Hellin, Province of Albacete.—Rice. 621

517 Verdu y Perez, Joaquin, Monóvar, Province of Alicante.—Esculent vegetables. 621

518 Daza y Ruiz, Francisco, Purchena, Province of Almeria.—Kidney beans. 621

519 Linares, José Ramon, Albanchez, Province of Almeria.—Chick-peas. 621

520 Perez, Mariano Valverde, Fontiveros, Province of Avila.—Chick-peas. 621

521 Rodriguez Francisco Mariano, Fontiveros, Province of Avila.—Chick-peas. 621

522 Sainz, Matias, Donvidas, Province of Avila.—Chick-peas. 621

523 Lambas y Gutierrez, Gregorio, Palacios de Goda, Province of Avila.—Chick-peas. 621

524 Gonzalez, Manuel, Barco de Avila, Province of Avila.—French peas. 621

525 Soto, José Diaz, Cabeza de Vaca, Province of Badajoz.—Chick-peas. 621

526 Moreno, Cayetano, Villalba de los Barros, Province of Badajoz.—Chick-peas. 621

527 Paredes, Cárlos, Guareña, Province of Badajoz.—Beans. 621

528 Venegas, Juan, Valle de Matamoros, Province of Badajoz.—Kidney beans. 621

529 Tortades, José de, Vich, Province of Barcelona.—Kidney beans. 621

530 Fontordera, Juan de, Vich, Province of Barcelona.—Kidney beans. 621

531 Mascaró, José, Vich, Province of Barcelona.—Spanish peas. 621

532 Picó, Mariano de, Vich, Province of Barcelona.—Leguminous plants and esculent vegetables. 621

533 Prat, José., Vich, Province of Barcelona.—Lupine. 621

534 Lerda y Daniel, José, Vich, Province of Barcelona.—Spanish peas. 621

535 Soler y Stussa, Valentin, Barcelona.—Esculent vegetables. 621

536 Garriga, Francisco Domingo, San Quirse de Besora, Province of Barcelona.—Esculent vegetables. 621

537 Provincial Deputation of Búrgos.—Pipirigallo (Hedysarum onobrythis) and galgana (lathyrus cicera). 621

538 Commission of the Province of Búrgos.—Esculent vegetables. 621

539 Arribas, Indalecio Anton, Lerma, Province of Búrgos.—True bitter vetch. 621

540 Garcia y Garcia, Francisco, Miranda de Ebro, Province of Búrgos.—Kidney beans. 621

541 Morales, Luis, Miranda de Ebro, Province of Búrgos.—Lentils. 621

542 Garcia, Antonio Gimenez, Guijo de Santa Barbara, Province of Cáceres.—Chick-peas and kidney beans. 621

543 Sande Olivares, Jerónimo de, Garrovillas de Alconetar, Province of Cáceres.—Chick-peas. 621

544 Martin, Ramon, Olvera, Province of Cádiz.—Chick-peas. 621

545 Perez, Francisco Garciá, Jerez de la Frontera, Province of Cádiz.—Chick-peas, beans and Spanish peas. 621

546 Corporation of Tarifa, Province of Cádiz.—Beans. 621

547 Provincial Commission, Isle of Tenerife, Canary Islands.—Chick-peas. 621

548 Leon, Juan Ponce de, Isle of Gran Canaria, Canary Islands.—Kidney beans and chick-peas. 621

549 Quevedo, José C., Isle of Gran Canaria, Canary Islands.—Kidney beans and chick-peas. 261

Agricultural Products.

550 Vega Grande, Count of, Isle of Gran Canaria, Canary Islands.—Kidney beans. 621

551 Provincial Board of Agriculture, Castellon.—Esculent vegetables. 621

552 Rubisco, Cayetano Clemente, Ciudad Real.—Beans. 621

553 Las Cabezuelas, Count of, Campo de Criptana, Province of Ciudad-Real.—Beans. 621

554 Cabanas y Blanco, Rafael, Córdoba.—Esculent vegetables. 621

555 Matilla, Cárlos, Córdoba.—Lupine and Spanish peas. 621

556 Prieto, Sebastian, Encinas Reales.—Chick-peas and beans. 621

557 Corporation of Cabra, Province of Córdoba.—Esculent vegetables. 621

558 Gimenez, José Maria, Baena, Province of Córdoba.—Beans and chick-peas. 621

559 Barrionuevo, Fernando, Córdoba.—Moorish beans. 621

560 San Bernardo, Count of, Córdoba.—Moorish beans. 621

561 Vallejo, Rafael, Córdoba.—Moorish beans. 621

562 Pacheco, Rafael Granados, Benamejo, Province of Córdoba.—Beans. 621

563 Poyato, Manuel, Zuheros, Province of Córdoba.—Chick-peas. 621

564 Escribano, Luis, Pozoblanco, Province of Córdoba.—Chick-peas. 621

565 Blanco, Alfonso, Dos-Torres, Province of Córdoba.—Chick-peas. 621

566 Torrico, Manuel, Hinojosa, Province of Córdoba.—Chick-peas. 621

567 Sanz y Calatañazor, Jerónimo Córdoba.—Chick-peas. 621

568 Conde, Juan, Córdoba.—True bitter vetch. 621

569 Carrillo, Librado, Priego, Province of Córdoba.—White kidney beans. 621

570 Massó y Soler, Felix, Blanes, Province of Gerona.—Esculent vegetables. 621

571 Sanchez, Juan Francisco, Siguenza, Province of Guadalajara.—Flesh-colored kidney beans. 621

572 Gil, Santiago, Siguenza, Province of Guadalajara.—White kidney beans. 621

573 Heras, Angel Ayuso de las, Valdearenas, Province of Guadalajara.—Kidney beans. 621

574 Reyes y Rich, Juan, Guadalajara.—Beans. 621

575 Soldan, Antonio, La Palma, Province of Huelva.—Esculent vegetables. 621

576 Riera y Fernandez, José, Huelva.—Esculent vegetables. 621

577 Carrasco, José Maria, Bonares, Province of Huelva.—Beans. 621

578 Otal, José Maria, Castillo de Carabineres, Province of Huesca.—Chick-peas and beans. 621

579 Paula Bulnes, Francisco de, Cazorla, Province of Jaen.—Chick-peas. 621

580 Vasquez, Francisco, Cazorla, Province of Jaen.—Chick-peas. 621

581 Quesada y Salazar, Pedro de, Valdepeñas, Province of Jaen.—Chick-peas. 621

582 Quesada, Cárlos Garcia de, Valdepeñas, Province of Jaen.—Chick-peas. 621

583 Estéban y Balen, Andrés, Navas de San Juan, Province of Jaen.—Chick-peas. 621

584 Herreros, Juan Ignacio, Iznatorof, Province of Jaen.—Chick-peas. 621

585 Higueras, José, Los Villares, Province of Jaen.—Lentils. 621

586 Prado, Máximo Alonso de, Leon.—Esculent vegetables. 621

587 Corporation of Vega de Infanzones, Leon.—Kidney beans. 621

588 Corporation of Valdefresno, Province of Leon.—Chick-peas and kidney beans. 621

589 Corporation of Arganza, Province of Leon.—Chick-peas and kidney beans. 621

590 Corporation of Congosto, Province of Leon.—Chick-peas and kidney beans. 621

591 Corporation of Mansilla Mayor, Province of Leon.—Chick-peas and kidney beans. 621

592 Corporation of Villaturriel, Province of Leon.—Chick-peas and kidney beans. 621

593 Corporation of Valverde del Camino, Province of Leon.—Chick-peas and kidney beans. 621

594 Corporation of Mansilla de las Mulas, Province of Leon.—Chick-peas and kidney beans. 621

595 Corporation of Ponferrada, Province of Leon.—Chick-peas and kidney beans. 621

596 Corporation of Encinado, Province of Leon.—Kidney beans. 621

597 Corporation of Pajares de los Oteros, Province of Leon.—Chick-peas. 621

598 Corporation of Magaz, Province of Leon.—Kidney beans. 621

599 Corporation of Omaña, Province of Leon.—Kidney beans. 621

600 Fernandez, Tomás, Armunia, Province of Leon.—Kidney beans and chick-peas. 621

601 Nuñez, Lino, Sahagun, Province of Leon.—Kidney beans. 621

602 Santos, Pablo, Fuentes de los Oteros, Province of Leon.—Kidney beans. 621

603 Oliveres, Mauricio, Torreserona, Province of Lérida.—Kidney beans on the vine. 621

604 Lo, Ambrosio, Albesa, Province of Lérida.—Kidney beans. 621

605 Jovér, Luisa de, Tárrega, Province of Lérida.—Kidney beans. 621

606 Ignés, Pedro, Cervera, Province of Lérida.—Blue vetch. 621

607 Freire, Manuel Soto, Panton, Province of Lugo.—Chick-peas and beans. 621

608 Pillado, Eliséo Martinez, Foz, Province of Lugo.—Beans. 621

609 Martinez, Ramon Antonio, Sarriá, Province of Lugo.—Kidney beans. 621

610 Moreno, Ramon Armesto, Puebla del Brollon, Province of Lugo.—Colored kidney beans. 621

611 Valcárcel, Teresa Pardo, Sariñao, Province of Lugo.—Chick-peas. 621

612 Corporation of Puebla de Brollon, Province of Lugo.—Beans. 621

613 Mendez, Alejo Perez, Monforte, Province of Lugo.—Chick-peas. 621

614 Calatrava, Francisco García, Alcobendas, Province of Madrid.—Chick-peas. 621

615 Pascual, Elías, Alfarnate, Province of Málaga.—Chick-peas. 621

616 Marin, Juan F. Garcia, Caravaca, Province of Múrcia.—Kidney beans. 621

617 Anta, Ignacio, Orense.—Beans. 621

618 Rodriguez, Manuel Iglesias, Celanova, Province of Orense. — Esculent vegetables. 621

619 Rodriguez y Gomez, Camilo, Ginzo de Limia, Province of Orense.—Chick-peas. 621

620 Rey, Manuel Pereiro, Rivela, Province of Orense.—Kidney beans. 621

621 Iglesias, Ramon, Canedo y Veiro, Province of Orense.—Kidney beans. 621

622 Provincial Board of Agriculture, Oviedo.—Kidney beans and peas. 621

623 Llanos, Andrés, Saldaña, Province of Palencia.—Chick-peas and French peas. 621

624 Carrasco, Antolin Galan, Carrion, Province of Palencia.—Chick-peas. 621

625 Carande, Isidoro, Nogal de las Huertas, Province of Palencia.—Chick-peas. 621

626 Garcia, Ignacio, Herrera del Rio Pisuerga, Province of Palencia.—White French peas. 621

627 Gallego, Felix, Cevico de la Torre, Province of Palencia. — White French peas. 621

628 Gutierrez, Juan Francisco, Palencia. —White French peas. 621

629 Monedero, Juan, Quintana del Puente, Province of Palencia.—Carrobs. 621

630 Ortega, Demetrio, Palenia.—Beans. 621

631 Gutierrez, Calisto, Palencia.—Beans. 621

632 Rivas, Galo Ruiz, Province of Palencia.—Peas. 621

633 Colambres, Genaro, Perales, Province of Palencia.—True bitter vetch. 621

634 Onis, Federico, Cantalapiedra, Province of Salamanca.—Esculent vegetables. 621

635 Toribio, Antonio Martin, Villares de la Reina.—Chick peas, lentils, and beans. 621

636 Carbayo, Luis. San Cristobal de la Cuesta, Province of Salamanca.—Lentils and chick-peas. 621

637 Nieto, Francisco Hernandez, Bóveda del Rio Almar, Province of Salamanca.—Chick-peas. 621

638 Garcia, Rafael, Cantalapiedra, Province of Salamanca.—Chick-peas. 621

639 Ronco, Gregorio, Ragama, Province of Salamanca.—Chick-peas. 621

640 Terrero, Santiago Juanes, Villares, Province of Salamanca.—Chick-peas. 621

641 Salvadios, Gaspar Diaz, Villaflores, Province of Salamanca.—Chick-peas. 621

642 Mayoral, Andrés, Los Huelmos, Province of Salamanca.—Chick-peas. 621

643 Poveda, Paulino, Pedroso, Province of Salamanca.—Chick-peas. 621

644 Garcia, Angel, Cantalapiedra, Province of Salamanca.—Peas. 621

645 Rodriguez, Zacarias, Cantalapiedra, Province of Salamanca.—Carrobs. 621

646 Fuentes, José, La Pinilla, Province of Salamanca.—Black peas. 621

647 Hernandez, Vicente, Cantalapiedra, Province of Salamanca.—Peas. 621

648 Iglesias, Angel, Monterrubio de Armuña, Province of Salamanca.—Lentils. 621

649 Hernandez, Baldomero, Parada de Rubides, Province of Salamanca.—Beans. 621

650 Gomez, Miguel Martin, Baliso, Province of Segovia.—Chick-peas. 621

651 Gimenez Isidro, Villacastin, Province of Segovia.—Chick-peas. 621

652 Linares, Salvador & Alejandro, Burgillos & Alcalá del Rio, Province of Sevilla.—Beans and Spanish peas. 621

653 Velasco, Ramon, Carmona, Province of Sevilla.—Chick-peas. 621

654 Olivares, Manuel Garcia, Olivares, Province of Sevilla.—Chick-peas. 621

655 Ojeda, Manuel, Sevilla.—Chick-peas. 621

656 Leon, Manuel Gimenez, Viso del Alcor, Province of Sevilla.—Chick-peas. 621

657 Terán, Francisco Collantes de, Alcalá de Guadaira, Province of Sevilla.—Chick-peas. 621

658 Puig, Juan, Sevilla.—Chick-peas. 621

659 Ojeda y Gomez, Juan, Sevilla.—Chick peas. 621

660 Orejuela, Joaquin de, Utrera, Province of Sevilla.—Chick-peas and Spanish peas. 621

661 Cuadra, Enrique de la, Utrera, Province of Sevilla.—Esculent vegetables. 621

662 Amores, Manuel, Salteres y Olivares, Province of Sevilla. — Esculent vegetables. 621

663 Perez y Serrano, Miguel, Olivares, Province of Sevilla. — Chick-peas and Spanish peas. 621

664 Muñoz y Leon, Antonio, Moran, Province of Sevilla.—Chick-peas. 621

665 Mendez, Felipe, Mairena del Alcor, Province of Sevilla.—Chick-peas. 621

666 Saavedra, Francisco, Utrera, Province of Sevilla.—Chick-peas. 621

667 Lavado, Antonio, Fernandez, Aguadulce, Province of Sevilla.—Beans. 621

668 Alcaraz, Manuel de, Osuna, Province of Sevilla.—Beans. 621

669 Rivas, Pedro de, Utrera, Province of Sevilla.—Beans. 621

670 Gonzales, Rafael, Sevilla.—Beans. 621

Agricultural Products.

671 Mayorga, Ramon Diaz, Moron, Province of Sevilla.—Beans. 621

672 Saavedra, José Maria, Mairena del Alcor, Province of Sevilla.—Beans. 621

673 Torres, Andrés Villalon, Moron, Province of Sevilla.—Beans and Spanish peas. 621

674 Viñaz, José Maria Gimenez, Mairena del Alcor, Province of Sevilla.—Spanish peas. 621

675 Burgòs, Felipe de, Utrera, Province of Sevilla.—Spanish peas. 621

676 Cuéllar, José Antonio, Utrera, Province of Sevilla.—Esculent vegetables. 621

677 Royo, Damian, Soria.—Blue vetch. 621

678 Lenguas, Pablo, Soria.—Blue vetch. 621

679 Barenys y Marinè, José, Vilaseca, Province of Tarragona.—Beans and peas. 621

680 Fausa, Pablo, La Canonja, Province of Tarragona.—Blue vetch, lentils, and Lima beans. 621

681 Virgili, Pablo, Tarragona.—Kidney beans, Lima beans, and blue vetch. 621

682 Gil, Francisco, Reus, Province of Tarragona.—Beans. 621

683 Prieto, Eusebio, Reus, Province of Tarragona.—Spanish peas and blue vetch. 621

684 Ollèr, Pedro, Reus, Province of Tarragona.—Peas, beans, and true bitter vetch. 621

685 Grau y Plá, José, Reus, Province of Tarragona.—Peas, beans, and true bitter vetch. 621

686 Montaner, Amalio, Reus, Province of Tarragona.—Beans. 621

687 Sorias y Domenech, Juan, Vilaseca, Province of Tarragona.—Kidney beans. 621

688 Monner, Juan, La Riera, Province of Tarragona.—Kidney beans. 621

689 Pullés, Antonio Morera, & Son. Tarragona.—Chick-peas. 621

690 Llurba, Juan Bautista, Ulldemolins, Province of Tarragona.—Chick-peas. 621

691 Vidal y Bas, Benito, Province of Tarragona.—Beans. 621

692 Fonts, Mariano, Reus, Province of Tarragona.—Beans. 621

693 Margenas, Antonio Bages Reus, Province of Tarragona.—Kidney beans. 621

694 Perez, Lino, Toledo.—Kidney beans and chick-peas. 621

695 Basarán, Isidoro, Olias del Rey, Province of Toledo.—Blue vetch. 621

696 Society of Agriculture, Valencia.—Esculent vegetables. 621

697 Palomares, Vicente Lassala, Masia de la Mar, Province of Valencia.—Beans and carrobs. 621

698 Lassala y Camp, Vicente, Alboraya, Province of Valencia.—Beans. 621

699 Alborts y Alborts, Cárlos, Picasent, Province of Valencia.—Carrobs. 621

700 Ferrandis y Soler, Onteniente, Province of Valencia.—Carrobs. 621

701 Casta, Joaquin Pardo de la, Tabernes, Province of Valencia.—Carrobs. 621

702 Baldoví, Rafael Gonzalez, Torrente, Province of Valencia.—Carrobs. 621

703 Arrue, Miguel, Benguacil, Province of Valencia.—Kidney beans. 621

704 Vaca, Francisco Cabeza de, Puente Duero, Province of Valladolid.—Chick-peas. 621

705 Lecanda, Eloy, Valbueno de Duero Province of Valladolid.—Chick-peas. 621

706 Cocho, Tiburcio, Santovenia, Province of Valladolid—Blue vetch and lentils. 621

707 Corporation of Fuentesauco, Province of Zamora.—Chick-peas. 621

708 Mateos, Facundo Martin, Fuentesauco, Province of Zamora.—Chick-peas. 621

709 Bausela, Estéban Garcia, Castroverde, Province of Zamora.—Chick-peas. 621

710 Poey, Juan, Habana, Cuba.—Vegetables of the country. 621

711 Sereiz, Eduardo Campos, Alicante.—Carrobs. 621

712 Llampallas, Antonio, Masnou, Province of Barcelona.—Carrobs. 621

713 Escoda y Teixido, Antonio, Villaseca, Province of Tarragona.—Carrobs. 621

714 Freixa, Sebastian, Reus, Province of Tarragona.—Carrobs. 621

715 Salvado, Salvador, Rindoms, Province of Tarragona.—Carrobs. 621

716 Monserrat y Cavallè, José, San Carlos de la Rápita, Province of Tarragona.—Carrobs. 621

717 Ibern y Rovira, José, Torredembarra, Province of Tarragona.—Carrobs. 621

718 Montaña, Francisco Roca, Cambrils, Province of Tarragona.—Carrobs. 621

719 Corporation of Amposta, Province of Tarragona.—Carrobs. 621

720 Bassedos y Andreu, Miguel, Reus, Province of Tarragona.—Carrobs. 621

721 Zaforta, Juan Burguez, Palma, Balearic Islands.—Carrobs. 621

722 Diego, Francisco Polop, Jativa, Province of Valencia.—Carrobs and photograph of the carrob tree. 621

723 Diego y Carsi, Ignacio & José, Jativa, Province of Valencia.—Carrobs. 621

724 Llandes, Mariano Ontonedo, Jativa, Province of Valencia.—Carrobs. 621

725 Practical School of Agriculture, Alava.—Beet-roots. 622

726 Gonzalez, Manuel, Barco de Avila, Province of Avila.—Onions. 622

727 Provincial Deputation of Búrgos.—Beet-roots and potatoes. 622

728 Board of Agriculture of the Province of Castellon.—Garlic. 622

729 Montoya, Vicente Llopis, Castellon.—Peanuts. 622

Agricultural Products.

730 Lara, Mateo Tuñon de, Andújar y Menjivar, Province of Jaen.—Licorice-root. 622

731 Asensio, Ramon, Caravaca, Province of Múrcia.—Potatoes. 622

732 Vila, Francisco, Viana del Bollo, Province of Orense.—Potatoes. 622

733 Rodriguez, Manuel Iglesias, Celanova, Province of Orense.—Tubers. 622

734 Rey, Manuel Pereiro, Orense.—Onions. 622

735 Carraura, Ramon, Cantalapiedra, Province of Salamanca.—Beet-roots. 622

736 Torre Ajero, Mariano & Cipriano de la, Arroyo de Cuéllar, Province of Segovia.—Madder-root. 622

737 Moreno, Santiago Merino, Berlanga de Duero, Province of Soria.—Onions, garlic, and potatoes. 622

738 Fonts, Mariano, Reus, Province of Tarragona.—Garlic. 622

739 Redondo, Juan Bautista, Carmena, Province of Toledo.—Potatoes. 622

740 Society of Agriculture of Valencia. Licorice-root, peanuts, edible cyperus, and garlic. 622

741 Lassala y Camps, Vicente, Alboraya, Province of Valencia.—Edible cyperus. 622

742 Dios Quemada, Juan de, & Sons, Vilovia, Province of Valladolid.—Madder-root. 622

743 National Manufactory of Tobacco, Alicante.—Tobacco. 623

744 Corral, Luis Marrin del, La Laguna, Canary Islands.—Tobacco. 623

745 Mendez, Benigno Dominguez, Valverde, Canary Islands.—Tobacco. 623

746 Garcia, Domingo, Orotava, Canary Islands.—Tobacco. 623

747 Lugo, Luis Benitez de, Orotava, Canary Islands.—Tobacco. 623

748 Society "El Porvenir Agricola," Isle of Gran Canaria, Canary Islands.—Leaf-tobacco and cigars. 623

749 Olivares, José del Castillo, Telde, Canary Islands.—Coffee. 623

750 Armas, Antonio, Valle de Agaete, Canary Islands.—Coffee. 623

751 Barrenengoa, Dàmaso, Ciudad-Real.—Coffee. 623

752 Ortiz, Juan, Almodóvar del Pinar, Province of Cuenca.—Saffron. 623

753 Chillaron, Silvestre, Villarejo de Fuentes, Province of Cuenca.—Saffron. 623

754 Redondo, Peregrin, Valverde de Fúcar, Province of Cuenca.—Saffron. 623

755 Corporation of Liñola, Province of Lérida.—Chamomile flowers. 623

756 Liné y Canes, José, Liñola, Province of Lérida.—Chamomile flowers. 623

757 Mar, Ramon, Lérida.—Chamomile flowers. 623

758 National Manufactory of Tobacco, Madrid.—Tobacco. 623

759 Meric & Co., Colonial Company, Madrid.—Ground coffee. 623

760 Menchero, Eduardo, Cartagena, Province of Múrcia.—Spanish opium. 623

761 National Manufactory of Tobacco, Sevilla.—Tobacco. 623

762 Corporation of La Puebla de Eca, Province of Soria.—Saffron. 623

763 Corporation of Valtueña, Province of Soria.—Saffron. 623

764 National Manufactory of Tobacco, Valencia.—Tobacco. 623

765 Leon, José, Rocafort, Province of Valencia.—Tobacco. 623

766 Masiá, Francisco, Requena, Province of Valencia.—Saffron. 623

767 Gomez, Bernardo, Requena, Province of Valencia.—Saffron. 623

768 Piñango, Norberto, Reguena, Province of Valencia.—Saffron. 623

769 Central Commission of the Island of Cuba, Habana, Cuba.—Leaf-tobacco. 623

770 Bock & Co., Habana, Cuba.—Tobacco. 623

771 Allones, Ramon, Habana, Cuba.—Tobacco. 623

772 Arrigunaga, Fernando, Habana, Cuba.—Tobacco. 623

773 Genèr, José, Habana, Cuba.—Tobacco. 623

774 Upmann, H. & Co., Habana, Cuba.—Tobacco. 623

775 Romero, Juan, Bernabé, Habana Cuba.—Tobacco. 623

776 Morales, José, Habana, Cuba.—Tobacco. 623

777 Jané, Manuel, Habana, Cuba.—Tobacco. 623

778 Valle, Suarez & Co., Habana, Cuba.—Tobacco. 623

779 Tolosa, Enrique, & Bro., Habana, Cuba.—Tobacco. 623

780 Asay, Celestino, Habana, Cuba.—Tobacco. 623

781 Díaz, Bances & Co., Habana, Cuba.—Tobacco. 623

782 Alvarez, Julian, Habana, Cuba.—Tobacco. 623

783 Murias, Pedro, & Co., Habana, Cuba.—Tobacco. 623

784 Rio, J. P. del, & Co., Habana, Cuba.—Tobacco. 623

785 Camino, Cuesta, & Co., Habana, Cuba.—Cigarettes. 623

786 Ortiz, Isidoro, Habana, Cuba.—Cigarettes. 623

787 Poey, Juan, Habana, Cuba.—Coffee. 623

788 Brotons, Bros., Orihuela, Province of Alicante.—Ground pepper. 623

789 Velasco, Cayetano Sabater, Múrcia.—Ground pepper. 623

790 Laorden, Juan Bernabé, Múrcia.—Ground pepper. 623

791 Bàguena, Joaquin, Múrcia.—Ground pepper. 623

792 Arjona y Gomez, Jesùs, Jaraiz de la Vera, Province of Cáceres.—Ground pepper. 623

793 Parrales, Valentin, Jaraiz de la Vera, Province of Cáceres.—Ground pepper. 623

Agricultural Products, Animals, etc.

794 Guerra, Felipe Leon, Gata, Province of Cáceres.—Ground pepper. 623

795 Enciso, Angel Morales, Jaraiz de la Vera, Province of Cáceres.—Ground pepper. 623

796 Jabon, Blas., Jaraiz de la Vera, Province of Cáceres.—Ground pepper. 623

797 Brotons, Carlos, Alicante.—Flax-seed. 624

798 Soria, Francisco Fuster, Monforte, Province of Alicante.—Carrob seed. 624

799 Verdu, Joaquin, Monòvar, Province of Alicante.—Anise and Cumin seed. 624

800 Riscal, de Alégre, Marquis of, Alia, Province of Cáceres.—Seeds. 624

801 Provincial Board of Agriculture, Castellon.—Lucern seed, flax seed, and carrob seed. 624

802 Sanchez, Sotero, Daimiel, Province of Ciudad-Real.—Anise-seed. 624

803 Peñalver, Josè Diaz, Membrilla, Province of Ciudad-Real.—Anise-seed. 624

804 Lara, Antonio Crespo, Benameji, Province of Córdoba.—Anise-seed. 624

805 Prieto, Sebastian, Encinas Reales, Province of Córdoba.—Anise-seed. 624

806 Conde, Juan, Còrdoba.—Flax seed and beneseed. 624

807 Avilèz y Merino, Francisco, Córdoba.—Fleawort and mustard seed. 624

808 Chillaron, Silvestre, Villarejo de Fuentes, Province of Cuenca.—Anise-sced. 624

809 Hidalgo, Valeriano, Los Hinojosos, Province of Cuenca.—Anise-seed. 624

810 Fernandez de Villalta, Antonio, Torre Don Jimeno, Province of Jaen.—Anise and lavender seed. 624

811 Corporation of Pozo Alcon, Province of Jaen.—Cumin-seed. 624

812 Ferreiro, Antonio, Mondoñedo, Province of Lugo.—Furze-seed. 624

813 Paradela, Domingo, Castroverde, Province of Lugo.—Linseed. 624

814 Provincial Deputation, Mùrcia.—Seeds. 624

815 Fuentes y Ponte, Javier, Mùrcia.—White sorghum seed. 624

816 Onis, Federico de, Cantalapiedra, Province of Salamanca.—Carthamus seed. 624

817 Virgili, Pablo, Tarragona.—Flax-seed and linseed. 624

818 Grau, Josè, Reus, Province of Tarragona.—Linseed. 624

819 Gatell y Folch, Juan, Altafulla, Province of Tarragona.—Beans. 624

820 Margenat, Antonion Bagès, Reus, Province of Tarragona.—Flax-seed. 624

821 Negrete, Acisclo Fernandez, Vilatobas, Province of Toledo.—Anise-seed. 624

822 Huelbes y Ortiz, Emilio, Ocaña, Province of Toledo.—Anise and cumin seed. 624

823 Valencian Society of Agriculture, Valencia.—Seeds. 624

824 Llandes, Mariano Ontoneda, Manuel, Province of Valencia.—Peanut-seed. 624

825 Aspiroz, Rafael Vives, Villa Oliva, Province of Valencia.—Peanut-seed. 624

826 Ordunna, Salvador Navarro, Villa Oliva, Province of Valencia.—Beans. 624

827 La Viñaza, Count of, Epila, Province of Zaragoza.—Linseed and flax seed. 624

828 Ramirez, Antonio, Alicante.—Linseed. 624

829 Sirvent, Antonio, San Vicente, Province of Alicante.—Canary-seed. 624

830 Calabuig, Bartolomè, Bañeras, Province of Alicante.—Pine seed. 624

831 Molano, Manuel, Badajoz.—Acorns. 624

832 Carretero, Agustin, Salvaleon, Province of Badajoz.—Acorns. 624

833 Gomez, Antonio Enrique, Montero.—Province of Córdoba.—Acorns. 624

834 Corporation of Añora, Province of Córdoba.—Acorns. 624

835 Escribano, Luis, Pozoblanco, Province of Córdoba.—Acorns. 624

836 Galan, Alfonso Blanco, Dos-Torres, Province of Córdoba.—Acorns. 620

837 Desttos, Gertrudis de, San Feliù de Codina, Province of Barcelona.—Pine cone seed. 624

838 Corporation of Cartaya, Province of Huelva.—Pine cone seed. 624

839 Serrano, Josè Lorenzo, Zalamea, Province of Huelva.—Acorns. 624

Land Animals.

840 Bayla, Juan de la, Santander.
a Rabbit and birds. 635
b Domestic and Angora cats. 636
c Boar. 637

841 Riscal de Alegre, Marquis of, Alia, Province of Cáceres.—Eggs, chrysalis and butterfly of the silk worm. 638

842 Argona, Jesus, Jaraiz, Province of Cáceres.—Cocoons. 638

843 Quevedo, Josè C., Isle of Gran Canaria, Canary Islands.—Cochineal. 638

844 Davidson, Guillermo, & Co., Villa de la Orotova, Canary Islands.—Cochineal. 638

845 Torre, Rafael de la, Las Palmas, Canary Islands.—Cochineal. 638

846 Corps of Engineers of Woods & Forests, Madrid.—Anatomical pictures of various insects. 638

847 Vidaur, Aurelio Lopez, Santander.—Collection of beetles. 638

Marine Animals, Fish Culture, and Apparatus.

848 Roca, Bartolomè, Palma de Mallorca, Balearic Islands.—Anchovies in oil. 641

849 Garcia & Piñon, Coruña.—Preserved Fish. 641

850 Cotrofe, Miguel, Coruña, Preserved fish. 641

851 Codes, Tomás Lopez de, Isla Cristina, Province of Huelva.—Salt and pressed sardines. 641

852 Provincial Commission, Lugo.—Cured eels. 641

Marine Animals, etc., Animal and Vegetable Products.

853 Riego, Vicente, Vivero, Province of Lugo.—Pressed and preserved sardines. 641

854 Vicente, Pascual, & Co., Vivero, Province of Lugo.—Pressed and preserved sardines. 641

855 Arzadum & Co., Villagarcia, Province of Pontevedra.—Preserved fish. 641

856 Martinez, Joaquin, Pontevedra.—Preserved fish. 641

857 Otero, Francisco, Grove, Province of Pontevedra.—Pressed sardines. 641

858 Mandado, Nicolas, & Sons, Aldàn, Province of Pontevedra.—Pressed sardines. 641

859 Larravide, Bráulio de, Laredo, Province of Santander.—Preserved fish. 641

860 Codes, Tomás Lopez de, Isla Cristina, Province of Huelva.—Salt tunny-fish. 642

861 Arzadum & Co., Villagarcia, Province of Pontevedra.—Shell-fish, cockles, and sea-sleeves. 644

862 Martinez, Joaquin, Pontevedra.—Cockles, mediterranean scallop, and other shell-fish. 644

863 Codes, Tomás Lopez de, Isla Cristina, Province of Huelva.—Sardine oil. 646

864 Vicente, Pascual, & Co., Vivero, Province of Lugo.—Sardine oil. 646

865 Riego, Vicente, Vivero, Province of Lugo.—Sardine oil. 646

866 Lopez, Francisco Ramon, Vivero, Province of Lugo.—Sardine oil. 646

Animal and Vegetable Products.

867 Provincial Deputation, Múrcia.—Spunk. 650

868 Riudavets y Femenias, Francisco, Mahon, Balearic Islands.—Condensed milk, and coffee and milk. 651

869 Fábreques, Guillermo, Mahon, Balearic Islands.—Condensed milk, and coffee and milk. 651

870 Visa, Agustin B., Mahon, Balearic Islands.—Coffee and condensed milk. 651

871 Clemente, Manuel Martin, Torrejoncillo, Province of Cáceres.—Cheese from sheep's milk. 651

872 Provincial Board of Agriculture, Morella, Province of Castellon.—Cheese from sheep's milk. 651

873 Coca, José, Maria, Daimiel, Province of Ciudad-Real.—Cheese from sheep's milk. 651

874 Villahermosa, Manuel, Manzanares, Province of Ciudad-Real.—Cheese from sheep's milk. 651

875 Camacho, Miguel Gonzalez, Manzanares, Province of Ciudad-Real.—Cheese from sheep's milk. 651

876 Pozoblanco, Luis Escribano, Province of Córdoba.—Cheese. 651

877 Falero y Fajardo, Plácido, Fuente de Pedro Naharro, Province of Cuenca.—Cheese. 651

878 Melgarejo, Maria Josefa, San Clemente, Province of Cuenca.—Cheese. 651

879 Moron, José García, Cabezas Rubias, Province of Huelva.—Cheese. 651

880 Callejon, Francisco Gimenez, Jaen.—Cheese. 651

881 Rodriguez, Vicente, Becerreá, Province of Lugo.—Butter. 651

882 Vega, Manuel Pardo de la, Rabado, Province of Lugo.—Salt butter. 651

883 Novoa, Juan Caraballo & Son, Lobaces, Province of Orense.—Imitation butter. 651

884 Board of Agriculture, Industry and Commerce, Oviedo.—Cheese. 651

885 Peña, Justo Estévez, Hinojosa del Duero, Province of Salamanca.—Cheese. 651

886 Basarán, Isidoro, Olias del Rey, Province of Toledo.—Cheese. 651

887 Quiros' Widow & Sons, San Bartolomé de Pinares, Province of Avila.—Hides. 652

888 Provincial Commission, Búrgos.—Hides. 652

889 Martin, Francisco Cazador, Castellon.—Hides. 652

890 Barrera, Angel, Lugo.—Hides. 652

891 Provincial Deputation, Múrcia.—Hides. 652

892 Conde, Juan Manuel, Valverde, Province of Orense.—Hides. 652

893 Antonio, Manuel de, Salamanca.—Common glue. 652

894 Medrano, Segundo Bartolomé, Valdeavellano, Province of Soria.—Sheep skins. 652

895 Sotorra, Antonio Cort, Reus, Province of Tarragona.—Hides. 652

896 Sans, Jaime, Widow of, Reus, Province of Tarragona.—Catalanian sole-leather. 652

897 Rocamora, Jerónimo, Reus, Province of Tarragona.—Catalanian sole-leather. 652

898 Allustante, Manuel, Zaragoza.—Calf-skins and dressed skins. 652

899 Molano, Pedro, Badajoz.—Honey. 654

900 Fábregues, Guillermo, Mahon, Balearic Islands.—Nougat of honey and almonds. 654

901 Olives, Bernardo José de, Ciudadela, Balearic Islands.—Honey. 654

902 Salvadó, José, Barcelona.—Objects of wax. 654

903 Domingo, Gregorio de, Santibañez del Val, Province of Búrgos.—Honey. 654

904 Cepeda, Julian, Yeste, Province of Cáceres.—Honey. 654

905 Dominguez, Benigno, Pinar, Canary Islands.—Honey. 654

906 Provincial Board of Agriculture, Morella, Province of Castellon.—Honey. 654

907 Llausola, Vicente, Castellon.—Wax. 654

908 Rubisco, Cayetano, Clemente, Moral de Calatrava, Province of Ciudad-Real.—Wax and honey. 654

909 Corporation of Palma del Rio, Province of Córdoba.—Honey. 654

910 Mayordomo, Manuel, Fresneda de la Sierra, Province of Cuenca.—Honey. 654

Animal and Vegetable Products.

911 Herraiz, Eustasio, Cardenete, Province of Cuenca.—Honey. 654

912 Torralba, José, Cardenete, Province of Cuenca.—Honey. 654

913 Corporation of Berninches, Province of Guadalajara.—Honey. 654

914 Cepeda, Ignacio, Almonte, Province of Huelva.—Honey. 654

915 Castillo, Juan Herrera, Cartaya, Province of Huelva.—Honey. 654

916 Alvarez, José Maria, Cartaya, Province of Huelva.—Honey. 654

917 Fernandez, Francisco, Cartaya, Province of Huelva.—Honey. 654

918 Vazquez, Bartolomé, Villanueva de los Castillejos, Province of Huelva.—Honey. 654

919 Serrano, José Lorenzo, Zalamea la Real, Province of Huelva.—Wax. 654

920 Miñon, Pedro Alonso, Leon.—Honey. 654

921 Martinez, Juan Panero, Astorga, Province of Leon.—Wax. 654

922 Monforte, Andrés Andrade, Province of Lugo.—Honey. 654

923 Lopez, Manuel Gonzalez, Incio, Province of Lugo.—Honey. 654

924 Corporation of Valle de Oro, Province of Lugo.—Wax. 654

925 Tato, Manuel, Lugo.—Wax. 654

926 Portillo, Serafin Rodriguez, Madrid.—Ornamental wax candles. 654

927 Provincial Deputation, Múrcia.—Honey. 654

928 Velasco, Manuel, Verin, Province of Orense.—Honey. 654

929 Robo, Modesto Perez, Verin, Province of Orense.—Wax. 654

930 Caramés, José García, Forcarey, Province of Pontevedra.—Wax. 654

931 Corbalán, Juan, Saucelle, Province of Salamanca.—Honey. 654

932 Sanchez, Rosa Hernandez, La Hinojosa, Province of Salamanca.—Honey. 654

933 Garcia, José Sanchez, Fregeneda, Province of Salamanca.—Honey. 654

934 Gascon, Andrés Sanchez, Cepeda, Province of Salamanca.—Wax. 654

935 Roman, José Palacios, Coronil, Province of Sevilla.—Honey. 654

936 Ramos, Eustaquio, Soria.—Honey and wax. 654

937 Aguirre, Simon, Soria.—Honey. 654

938 Perez, Vicente Antonio, Talavera de la Reina, Province of Toledo.—Wax candles and wax. 654

939 Lecanda, Eloy, Valbuena de Duero, Province of Valladolid.—Honey. 654

940 Domec, Gregorio, Zuera, Province of Zaragoza.—Honey. 654

941 Izquierdo, Nicolás, Zuera, Province of Zaragoza.—Honey. 654

842 Poey, Juan, Habana, Cuba.-Honey. 654

943 Vegüer y Naguer, Juan, Habana, Cuba.—Honey. 654

944 Central Commission, Habana, Cuba.—Honey. 654

945 Carratalá, Francisco, San Juan, Province of Alicante.—Olives. 656

946 Girones, Manuela, Agost, Province of Alicante.—Olives. 656

947 Samper, Ramon, Muchamiel, Province of Alicante.—Olives. 656

948 Espinós, Joaquin, & Co., Ondara y Beniarbeig, Province of Alicante.—Muscatel raisins. 656

949 Almodóvar, Antonio Sanchez, Alicante.—Preserves. 656

950 Bernabeu y Diego, Juan B., Jabea, Province of Alicante.—Raisins. 656

951 Verdú y Perez, Joaquin, Monóvar, Province of Alicante.—Dried figs. 656

952 Lèrin, Eduardo Campos, Alicante, Dried figs. 656

953 Miralles, Clemente, Alicante.—Vegetable preserves. 656

954 Garcia, Manuel, Elche, Province of Alicante.—Fig bread and dates. 656

955 Benito, Juan Bautista Pina, Monforte, Province of Alicante.—Figs. 656

956 Meson, José, Arenas de San Pedro, Province of Avila.—Olives. 656

957 Vaca, José, Badajoz.—Ham. 656

958 Terron, Jacinto, Badajoz.—Pork sausages and black pudding. 656

959 Maria, Juan Martinez Santa, Burguillos, Province of Badajoz.—Dried beef and sausages. 656

960 Sanabria, José, Badajoz.—Sausages. 656

961 Visa, Agustin, Mahon, Balearic Islands.—Sausages. 656

962 Roca, Bartolomé, Palma, Balearic Islands.—Vegetable preserves. 656

963 Arrom, Lorenzo, Llubi, Balearic Islands.—Vegetable preserves. 656

964 Puig & Llagostera, Barcelona.—Preserved olives. 656

965 Trias y Travesa, José, Masnou, Barcelona.—Dessicated vegetables. 656

966 Vernis, Jaime, Vich, Province of Barcelona.—Preserved meats. 656

967 Luna, José, La Rambla, Province of Barcelona.—Preserved fruits, vegetables, etc. 656

968 Parent Bros., Barcelona.—Fruits in liquors and sweetmeats. 656

969 Castell, Joaquin Pedrosa de, Esparraguera, Province of Barcelona.—Olives. 656

970 Provincial Commission, Miranda de Ebro, Province of Búrgos.—Preserved fruits. 656

971 Olivares, Jeronimo de Sande, Garrovillas de Alconetar, Province of Cáceres.—Pork sausages. 656

972 Garcia, Antonio Gimenez, Guijo de Santa Barbara, Province of Cáceres.—Preserved fruits. 656

973 Cuevas, Joaquin de las, Puerto Real, Province of Cadiz —Sausages. 656

974 Provincial Board of Agriculture, Castellon.—Dried figs. 656

975 Aguila y Aguila, Santiago, Villarrubia de los Ojos, Province of Ciudad-Real.—Olives. 656

976 Puzini Bros., Córdoba.—Fruits in syrup. 656

977 Lara, Rafael J. de, Córdoba.—Olives. 656

978 San Bernardo, Count of, Córdoba. —Olives. 656

979 Cabezas y Sarabia, José, Córdoba. —Olives. 656

980 Albeary Ward, Francisco, Montilla, Province of Córdoba.—Prunes. 656

981 Plaza, Juan Antonio, Montoro, Province of Córdoba.—Olives. 656

982 Alvarez, Rafael Ceballos, Adamúz, Province of Córdoba.—Olives. 656

983 Blanco, José Maria, Santiago, Province of La Coruña.—Quince marmelade. 656

984 Cotrofe, Miguel, Coruña.—Preserved meats and birds. 656

985 Garcia & Piñon, Coruña.—Preserved meats and birds. 656

986 Romero & Ferrin, Coruña.—Alimentary preserves. 656

987 Gomez y Gomez, Enrique, Lepe, Province of Huelva.—Figs. 656

988 Cruz, Rafael Trianes de la, Huelva. —Figs. 656

989 Corporation of Cartaya, Province of Huelva.—Figs. 656

990 Vasquez, Bartolomé, Villanueva, de los Castillejos, Province of Huelva.—Figs. 656

991 Mesa, Francisco Carrion, Huelva. —Fruits in brandy. 656

992 Carnes, Eulogio Martin, Aracena, Province of Huelva.—Hams. 656

993 Moreno, Maria, Cazorla, Province of Jaen.—Figs. 656

994 Barrutia, Elias, Cazorla, Province of Jaen.—Figs. 656

995 Romerotoro, Marquis of, Alcaudete, Province of Jaen.—Dried apples and prunes. 656

996 Elvira, José, Logroño.—Peach jam. 656

997 Moreno, Juan Miguel, Calahorra, Province of Logroño.—Vegetable preserves. 656

998 Ocon, Miguel, Calahorra, Province of Logroño.—Vegetable preserves. 656

999 Muro, Paulino, Calahorra, Province of Logroño.—Vegetable preserves. 656

1000 Provincial Commission, Jover, Province of Lugo.—Ham. 656

1001 Gimenez, Lucio Chapresto, Marbella, Province of Málaga.—Figs. 656

1002 Gomez, Antonio J., Málaga.—Muscatel raisins. 656

1003 Kreisler, Juan, Málaga.—Raisins. 656

1004 Gros, Federico, & Co., Málaga.—Raisins. 656

1005 Huelin, Guillermo, & Son, Málaga.—Muscatel raisins. 656

1006 Provincial Deputation, Múrcia.—Olives. 656

1007 Fuentes y Ponte, Javier, Múrcia. —Olives. 656

1008 Abarca, Gerónimo Vidal, Alhama, Province of Múrcia.—Fig bread 656

1009 Escudero, Tomàs, Corella, Province of Navarra.—Preserved capsicum and tomatoes. 656

1010 Gayoso, Tomás Ramon, Rante, Province of Orense.—Peeled and dried chestnuts. 656

1011 Rey, Manuel Pereiro, Orense.—Olives. 656

1012 Santamarina, José, Verin, Province of Orense.—Olives. 656

1013 Anta, Ignacio, Orense.—Peeled and dried chestnuts. 656

1014 Romero, Joaquin Perez, Santa Cruz de la Rabeda, Province of Oreuse. —Peeled and dried chestnuts. 656

1015 Provincial Board of Agriculture, Industry, and Commerce, Cangas de Tineo, Province of Oviedo.—Ham. 656

1016 Diaz, Juan, Oviedo.—Sweetmeats. 656

1017 Arcadun & Co., Villagarcia, Province of Pontevedra.—Preserved partridge and veal. 656

1018 Martinez, Joaquin, Pontevedra.—Vegetable preserves. 656

1019 Onís, Federico de, Cantalapiedra, Province of Salamanca.—Fruit syrup. 656

1020 Martin, Lorenzo Calvo, Mogarraz, Province of Salamanca.—Figs. 656

1021 Paulino, Cipriano Perez, Fregeneda, Province of Salamanca.—Prunes. 656

1022 Molina's Widow & Son, Sevilla. —Olives. 656

1023 Carmona, Manuel, Sevilla.—Olives. 656

1024 Orihuela, Pedro, Sevilla.—Olives. 656

1025 Fernandez, Joaquin, Sevilla.—Olives. 656

1026 Garcia, Sebastian, Scala Dei, Province of Tarragona.—Dried fruits. 656

1027 Gatell y Folch, Juan, Altafulla, Province of Tarragona.—Olives. 656

1028 Fonts, Mariano, Reus, Province of Tarragona.—Olives and pimenton (ground fruit of the pepper plant). 656

1029 Serra, Olegario, Reus, Province of Tarragona.—Fruits in syrup. 656

1030 Esteve, D. A., Widow & Son of, Reus, Province of Tarragona.—Olives. 656

1031 Montaner, Amalio, Reus, Province of Tarragona.—Olives. 656

1032 Grau y Fló, José, Reus, Province of Tarragona.—Olives. 656

1033 Roca Vinardell, Tortosa, Province of Tarragona.—Preserved fruits. 656

1034 Pellicer, Francisco, Porrera, Province of Tarragona.—Figs. 656

1035 Coll, José, Valls, Province of Tarragona.—Muscatel raisins. 656

1036 Basarán, Isidoro, Olias del Rey, Province of Toledo.—Prunes. 656

1037 Capsir, José Damian, Puebla de Rugat, Province of Valencia.—Preserved fruits. 656

1038 Estellés, Gerardo, Játiva, Province of Valencia.—Muscatel raisins. 656

1039 Stárico y Ruiz, Ricardo, Ribarroja, Province of Valencia.—Fig bread. 656

1040 Lassala y Palomares, Vicente, Masía de la Mar, Province of Valencia.—Figs. 656

1041 Cañamás, Blas Antonio, Province of Valencia.—Muscatel raisins. 656

1042 Artigues, Serapio, Játiva, Province of Valencia.—Muscatel raisins. 656

1043 Fabiá, Manuel Andrés, Torrente, Province of Valencia.—Grape syrup. 656

1044 Martí, Enrique, Alcira, Province of Valencia.—Vegetable preserves. 656

1045 Espinòs, Joaquin, & Co., Godella, Province of Valencia.—Muscatel raisins. 656

1046 Vives y Aspiroz, Rafael, Villa de Oliva, Province of Valencia.—Muscatel raisins. 656

1047 Calabuig, Bartolomé, Bocairente, Province of Valencia.—Muscatel raisins. 656

1048 Valencian Society of Agriculture, Valencia.—Dried fruits. 656

1049 Garcia, Miguel, Zamora.—Fruits in syrup. 656

1050 Perez, Bàrbara, Zamora.—Hams and pork sausages. 656

1051 Gasca y Beltran, Joaquin, Zaragoza.—Preserved fruits. 656

1052 Royo, Mariano, Zaragoza.—Preserved strawberries. 656

1053 Costa & Co., Habana, Cuba.—Preserved fruits. 656

1054 Bosehi, Juan, & Co., Habana, Cuba.—Preserved fruits. 656

1055 Casado, F. N., Malaga.—Raisins. 656

1056 Mark, Joah A., Malaga.—Raisins. 656

1057 Catala, Antonio, Jabea, Province of Alicante.—Muscatel raisins. 656

1058 Bolufer, Cristobal, Jabea, Province of Alicante.—Muscatel raisins. 656

1059 Girones y Domenech, Manuel, Alicante.—Sugared almonds. 656

1060 Ruidavets y Femenias, Francisco, Mahon, Balearic Islands.—Nougat. 656

1061 Visa, Agustin B., Mahon, Balearic Islands.—Nougat. 656

1062 Fàbregues, Guillermo, Mahon, Balearic Islands.—Nougat. 656

1063 Estapé y Cardona, José, Habana, Cuba.—Guava paste. 656

1064 Echarrieta, Santiago, San Josè de las Lajas, Cuba.—Guava paste. 656

1065 Gomez, J., & Co., Habana, Cuba.—Confectionery. 656

1066 Usano, Martin, Toledo.—Marchpane. 656

1067 Martin y Valverde, Laureano, Toledo.—Marchpane. 656

1068 Labrador, Cipriano, Toledo.—Marchpane. 656

1069 Perez, Abdon Atienza, Tarazona de la Mancha, Province of Albacete.—Wheat flour. 657

1070 Sellès, José, Alicante.—Wheat flour. 657

1071 Benito, Isidro, Avila.—Wheat flour. 657

1072 Lagarza, Eduardo, Badajoz.—Flour. 657

1073 Gil Bros. & Rico, Aranda de Duero, Province of Búrgos.—Flour. 657

1074 Conde & Bros., Cabia, Province o Búrgos.—Flour. 657

1075 Toval, Antonio, Búrgos.—Grits. 657

1076 Arqueaga, Rodrigo, Búrgos.—Grits. 657

1077 Vega Grande, Count of, Isle of Gran Canaria, Canary Islands.—Maize flour. 657

1078 Gordo, Julian, Luzaga, Province of Guadalajara.—Flour and bran. 657

1079 Fontoya, Manuel, Jaen.—Flour and bran. 657

1080 Martos, Juan Francisco, Jaen.—Flour and bran. 657

1081 Prado, Maximo Alonso de, Leon.—Flour. 657

1082 Provincial Deputation, Múrcia.—Maize flour and rice. 657

1083 Pombo, Pedro, Abarca, Province of Palencia.—Wheat flour. 657

1084 Mora, Celestino Merino de la, Grijota, Province of Palencia.—Flour. 657

1085 Vega, Lucas Ortiz, Grijota, Province of Palencia.—Flour 657

1086 Barrios, Marcelo, Grijota, Province of Palencia.—Flour. 657

1087 Ascoitia, Higinio de, Grijota, Province of Palencia.—Flour. 657

1088 Barrios, Rios & Co., Palencia.—Flour. 657

1089 Durango, Manuel Martinez, Husillos, Province of Palencia.—Flour. 657

1090 Dulce y Alvarez, Blas, Herrera de Valdecañas, Province of Palencia.—Flour. 657

1091 Sanchez, Basilio Igea, Peñaranda de Bracamonte, Province of Salamanca.—Flour. 657

1092 Villa Alcazar, Marquis of, Tejares, Province of Salamanca.—Flour. 657

1093 Carretero, E., Widow of, Segovia.—Flour. 657

1094 Carretero, Martin, Segovia.—Flour. 657

1095 Riber, Villa & Puerta, Segovia.—Flour. 657

1096 Saperas, Francisco, Reus, Province of Tarragona.—Flour and bran. 657

1097 Industrial Flour Mill of Reus, Province of Tarragona.—Flour and bran. 657

1098 Gatell y Folch, Juan, Altafulla.—Province of Tarragona —Maize flour. 657

1099 Estèban, Francisco, Toledo.—Wheat flour. 657

1100 Huelbes y Ortis, Emilio, Ocaña, Province of Toledo.—Vetch flour. 657

1101 Martinez, Gomez & Co., Sueca, Province of Valencia.—Decorticated rice. 657

1102 Society "La Edetana," Province of Valencia.—Rice. 657

1103 Quemada, Juan de Dios, & Sons, Viloria, Providence of Valladolid.—Wheat flour. 657

1104 Hornedo y Velasco, Pedro, Valladolid.—Wheat flour. 657

Animal and Vegetable Products.

1105 Pardo, R. & P., Corcos, Province of Valladolid.—Wheat flour. 657

1106 La Patilla, Count of, Benavente, Province of Zamora.—Wheat flour. 657

1107 Palomar, Nasciso, Zaragoza.—Flour. 657

1108 Higuera, Tomàs, Zaragoza.—Flour. 657

1109 Segura, Josè, Sevilla.—Grits. 657

1110 Ribera, Guarner & Bros., Alicante.—Vermicelli and fine pastes. 658

1111 Esteve, Juan M., Alicante.—Starch. 658

1112 Ponseti y Gomila, José, Mahon, Balearic Islands.—Soup paste. 658

1113 Batlló Bros., Barcelona.—Starch. 658

1114 Draper y Precios, Salvador, San Martin de Provensals, Province of Barcelona.—Starch. 658

1115 Provincial Board of Agriculture, Castellon.—Starch. 658

1116 Provincial Deputation, Mùrcia.—Soup pastes. 658

1117 Rey, Manuel Pereiro, Orense.—Fæcula of potatoes. 658

1118 Barrera, Pedro Garcia, Ciudad-Rodrigo, Province of Salamanca.—Starch. 658

1119 Carnero & Colsa, Salamanca.—Starch. 658

1120 Moro, Josè, Salamanca.—Starch. 658

1121 Mirat & Son, Salamanca.—Starch. 658

1122 Jarrin, Bernardo, Salamanca.—Soup pastes. 658

1123 Martinez Sainz Bros., Sevilla.—Soup pastes and starch. 658

1124 Gil, Gregorio, Valladolid.—Starch. 658

1125 Cuevas & García, Valladolid.—Vermicelli. 658

1126 Castañeda, Romualdo Ruiz, Torralba de Calatrava, Province de Ciudad-Real.—Arrope (a kind of syrup). 659

1127 Rey, Luis Jouva, Granada.—Sugar and molasses. 659

1128 Torrent, Francisco, Almuñecar, Province of Granada.—Sugar. 659

1129 Huelin, Guillermo & Son, Málaga.—Unrefined sugar. 659

1130 Provincial Deputation. Múrcia.—Jelly and syrup. 659

1131 Roca Bros., Mùrcia.—Pomegranate syrup. 659

1132 Mallet, Ildefonso, Zaragoza.—Oriental nectar. 659

1133 Central Commission of the Island of Cuba, Habana.—Sugar. 659

1134 Iznaga, Natividad, Habana, Cuba.—Sugar. 659

1135 Veguer y Nagúer, Juan, Habana, Cuba.—Sugar. 659

1136 Poey, Juan, Habana, Cuba.—Sugar and Guarapo (fermented sugar cane liquor). 659

1137 Girart, Nicolas, Regla, Cuba.—Sap of the sugar-cane. 659

1138 Capsir, José Damian, Puebla de Rugat, Province of Valencia.—Grape syrup. 659

1139 Gasco y Beltran, Joaquin, Zaragoza.—Raspberry syrup. 659

1140 Garcia Muñoz, Emilia Samá de, Habana, Cuba.—Sugar. 659

1141 Skiret Bros., San Juan de Puerto Rico.—Sugar. 659

1142 Balanzátegui, Canuto, El Ciego, Province of Alava.—Red wine. 660

1143 Riscal de Alegre, Marquis of, El Ciego, Province of Alava.—Red wine. 660

1144 Tortosa, Joaquin, Hellin, Province of Albacete.—Brandy. 660

1145 Gil, Eloy, Hellin, Province of Albacete.—Wine. 660

1146 Lopez, Celestino, Tarazona de la Mancha, Province of Albacete.—Brandy. 660

1147 Aroca, Josè, Tarazora de la Mancha, Province of Albacete.—White wine. 660

1148 Lopez, Alonso, Tarazona de la Mancha, Province of Albacete.—Brandy. 660

1149 Sanchez, José Acacio, Tarazona de la Mancha, Province of Albacete.—Red wine. 660

1150 Pedraja, Bernardo Gomez, Tarazona de la Mancha, Province of Albacete.—Red wine. 660

1151 Fernandez, Antonio, Tarazona de la Mancha, Province of Albacete.—Red wine. 660

1152 Simarro, Miguel, Tarazona de la Mancha, Province of Albacete.—Red wine. 660

1153 Lara, Celestino Picazo, Tarazona de la Mancha, Province of Albacete.—Red wine. 660

1154 Tendero, Gerónimó, Tarazona de la Mancha, Province of Albacete.—Red wine. 660

1155 Picazo, Pedro Bautista, Tarazona de la Mancha, Province of Albacete.—Red wine. 660

1156 Serrano, María Rosa, Tarazona de la Mancha, Province of Albacete.—Red wine. 660

1157 Dénia, Rafael, Tarazona de la Mancha, Province of Albacete.—Red wine. 660

1158 Albi y Ginér, Antonio, Jabea, Province of Alicante.—Muscatel vinegar. 660

1159 Ferriz y Martinez, Cristóbal, Campo de Mirra, Province of Alicante.—Wine. 660

1160 Rojas Aguado, José, Agres, Province of Alicante.—Wine. 660

1161 Gumiel y García, Luis, Aspe, Province of Alicante.—Anise-seed cordial. 660

1162 Romany, Vicente, & Sons, Dèina, Province of Alicante.—White wine. 660

1163 Albert, Antoliano Perez, Monóvar, Province of Alicante.—Wines and brandies. 660

1164 Campos, Eduardo, Alicante.—Wine. 660

1165 Alsina, José, Partido de Campello, Province of Alicante.—White and red wine. 660

Animal and Vegetable Products.

1166 Alenda, Antonio, & Son, Novelda, Province of Alicante.—Brandy. 660

1167 Almodóvar, Antonio Sanchez, Alicante.—Wines. 660

1168 Prast, Queremon Alfonso, Monóvar, Province of Alicante.—Brandy. 660

1169 Vidal, Joaquin Calpena, Monóvar, Province of Alicante.—Red wine. 660

1170 Muñoz, Lorenzo Fernandez, San Juan, Province of Alicante.—Wine. 660

1171 Ortuño y Maestre, Juan Francisco, Salinas, Province of Alicante.—Wine. 660

1172 Verdú y Perez, Joaquin, Monóvar, Province of Alicante.—Wines. 660

1173 Leach, Giró & Co., Alicante.—White wines. 660

1174 Novelda, Tomás Escolano, Province of Alicante.—Brandy. 660

1175 Berenguer, Raimundo, Monóvar, Province of Alicante.—Sweet brandy. 660

1176 Cerdá, Enrique, Monóvar, Province of Alicante.—Vinegar. 660

1177 Verdú y Rico, Monóvar, Province of Alicante.—Vinegar. 660

1178 Perez Verdú Brothers, Monóvar, Province of Alicante.—Vinegar and wines. 660

1179 Paya, Ciro Perez, Monóvar, Province of Alicante —Wines. 660

1180 Verdú, Marcial, Monóvar, Province of Alicante.—Red wine. 660

1181 Verdú y Cortés, Vedasto, Monóvar, Province of Alicante.—Vinegar. 660

1182 Verdu y Perez, Luis, Monóvar, Province of Alicante.—Wines. 660

1183 Rico, Antonio Perez, Monóvar, Province of Alicante.—Wines. 660

1184 Rico y Albert, Alejandro, Monóvar, Province of Alicante.—Wines. 660

1185 Verdú, Remedios Perez, Monóvar, Province of Alicante.—Vinegar and wines. 660

1186 Albert, Perez, & Co., Province of Alicante.—Vinegar and wines. 660

1187 Gisbert y Marco, Francisco, Ibi, Province of Alicante.—Red wine. 660

1188 Boculini, Juan Baeza, Alicante.—Red wine. 660

1189 Ferrer, Jaime, Alicante.—Vinegar. 660

1190 Faes Bros. & Co., Sax, Province of Alicante.—Anise-seed cordial and spirits of wine. 660

1191 Coquillat y Sempere, José, Elche, Province of Alicante.—Muscatel wine. 660

1192 Amorós, Juan Esteve, Monforte, Province of Alicante.—Wine. 660

1193 García, Luis Gumiel, Aspe, Province of Alicante.—Brandies. 660

1194 Agulló, Francisco Fuentes, & Bros., Elche, Province of Alicante.—Wines, vinegar, alcohol, and pomegranate wine. 660

1195 Pina, Juan Bautista, Monforte, Province of Alicante —Mistela (national drink). 660

1196 Benito, Juan Pina, Monforte, Province of Alicante.—Wine. 660

1197 Scals, José, Jijona, Province of Alicante.—Wine. 660

1198 Somoza, Ramon Maria Nava, Moraleja Matacabras, Province of Avila.—White wine. 660

1199 Soria, Mariano, Nava del Rey, Province of Avila.—Vinegar. 660

1200 Davernat & Co., Velez-Rubio, Province of Almeria.—Fig-brandy. 660

1201 Abadia, Nicolas, Bros., Velez-Rubia, Province of Almeria.—Wines. 660

1202 Vilches & Jover, Alhama, Province of Almeria.—Wines and brandies. 660

1203 Trell y Chacon, Miguel del, Berja, Province of Almeria.—Wines. 660

1204 Daza y Ruiz, Francisco, Purchena, Province of Almeria.—Wines. 660

1205 Romero, Manuel Carbonero, Purchena.—Province of Almeria.—Wine. 660

1206 Roca, Bartolomé, Palma, Balearic Islands.—Brandies and wines. 660

1207 Viza, Agustin, Mahon, Balearic Islands.—Refined vinegar. 660

1208 Prohens, Damian, Félanitx, Balearic Islands.—Anise-seed cordial. 660

1209 Jaime, Miguel, Santa Maria, Balearic Islands.—Anise-seed cordial. 660

1210 Bisellach, Guillermo, Benisalen, Balearic Islands.—Wines. 660

1211 Munar, Gabriel, Benisalen, Balearic Islands.—Wines. 660

1212 Mulet, Antonio, Beñalbufar, Balearic Islands.—Malmsey wine. 660

1213 La Cenia, Marquis of, Beñalbufar, Balearic Islands.—Muscatel wine. 660

1214 Humbert, Nicasio, Llummayor, Balearic Islands.—Wines. 660

1215 Ferrant, Manuel, Barcelona.—Vinegar. 660

1216 Soler y Stussa, Valentin, Barcelona —Wines and vinegars. 660

1217 Society Burchers, Pedro Miret, San Juan de Vilasar, Province of Barcelona.—Liquors. 660

1218 Ballester y de Torres, Laureano, Mediona, Province of Barcelona.—Wines. 660

1219 Castells de Mas, Joaquin Pedrosa de, Esparraguera, Province of Barcelona.—Wines. 660

1220 Valls, Pedro, & Viñas, Gospar, Esparraguera, Province of Barcelona.—Wines and liquors. 660

1221 Llampallas, Antonio, Masnou, Province of Barcelona.—Wines. 660

1222 Ventura y Sampere, Amado, Masnou, Province of Barcelona.—Liquors and anise-seed cordial. 660

1223 Pascual, Miguel, Masnou, Province of Barcelona.—Wines. 660

1224 Golar y Sirasol, José, Villanueva y Geltrú, Province of Barcelona.—Red wine. 660

1225 Cusi y Ferret, Federico, Villanueva y Geltrú, Province of Barcelona.—Hygienic wine. 660

1226 Juandó y Rafecas, Juan, Villanueva y Geltrú, Province of Barcelona.—Wines. 660

1227 Marquès, Jerónimo, Villanueva y Geltrú, Province of Barcelona.—Wines. 660

Animal and Vegetable Products.

1228 Alegret, Francisco, Villanueva y Geltrú, Province of Barcelona.—Mistela (national drink). 66o

1229 Solà, Félix, Villanueva y Geltrú, Province of Barcelona.—Red wine. 66o

1230 Baro y Gibert, Josè, Villanueva y Geltrú, Province of Barcelona.—Virgin wine. 66o

1231 Roig y Serra, Juan, Villanueva y Geltrú, Province of Barcelona.—Wines. 66o

1232 Creux, Teodoro, Villanueva y Geltrú, Province of Barcelona.—Wines. 66o

1233 Dodero y Ponte, Josè Oriol, Pomar de Badalona, Province of Barcelona. —Wines. 66o

1234 Valenti, Joaquin, Cabrera de Mataró, Province of Barcelona.—Wine. 66o

1235 Sivilla y Martorell, Narciso, Villafranca de Panadés, Province of Barcelona.—Anise-seed wine. 66o

1236 Girona, Silvestre, Villafranca de Panadés, Province of Barcelona.—Anise-seed cordial. 66o

1237 Olivella, Cristóbal, Villafranca de Panadés, Province of Barcelona.—Imitation wines. 66o

1238 Mullol, Buenaventura Rius, Villafranca de Panadés, Province of Barcelona.—Wines. 66o

1239 Escofet Nello, Margarita, Widow of, Province of Barcelona.—Macon wine and imitations. 66o

1240 Font, Salvador, Mataró, Province of Barcelona.—Liquors. 66o

1241 Palau, Joaquin de, Mataró, Province of Barcelona.—Wines. 66o

1242 Monte, Pedro Prat del, Barcelona. —Florentine vermouth. 66o

1243 Fontanals, José Teresa, Barcelona.—Beer. 66o

1244 Sallès, Salvador, Barcelona.—Wine. 66o

1245 Plá y Vila, Pedro, Barcelona.—Brandy. 66o

1246 Oliver Bros., Barcelona.—Wines. 66o

1247 Codina y Riu, Ramon, San Boy de Llobregat, Province of Barcelona.—Wine. 66o

1248 Duràn, Eduardo, San Vicente, Province of Barcelona.—Wine. 66o

1249 Gerona, Manuel, Villa de Cabals, Province of Barcelona.—Wine. 66o

1250 Santacana, José, La Granada, Province of Barcelona.—Mistela wine. 66o

1251 Deu, José, & Co., Masqueja y Martorell, Province of Barcelona.—Wine. 66o

1252 Fornell y Batllaura, Juan, Abella, Province of Barcelona.—Wine. 66o

1253 Oliver y Coll, Francisco, Papiol, Province of Barcelona.—Wine, liquors, and vinegar. 66o

1254 Beltran y Rosell, Manuel, Igualada, Province of Barcelona.—Wine. 66o

1255 Robira y Grau, Jose, San Martin de Sarroca, Province of Barcelona.—Wines and imitations. 66o

1256 Barrera, Gabriel, Tayà, Province of Barcelona.—Wine. 66o

1257 Bosch y Grau, José, Badalona, Province of Barcelona.—Brandy. 66o

1258 Amélí y Carbonell, José, Sitges, Province of Barcelona.—Wine. 66o

1259 Puig, Josè Buenaventura, Sitges, Province of Barcelona.—Muscatel and Malmsey wine. 66o

1260 Ventallò y Llobateras, Domingo Tarrasa, Province of Barcelona.—Wines. 66o

1261 Castelét, Buenaventura, Tarrasa, Province of Barcelona.—Wines. 66o

1262 Galí, Antonio, Tarrasa, Province of Barcelona.—Wines. 66o

1263 Pons, Antonio Castells de, Esparraguera, Province of Barcelona.—Wines. 66o

1264 Castell de Mas, Joaquin Pedrosa de, Esparraguerra, Province of Barcelona.—Wine. 66o

1265 Camprubí, Juan, Barcelona.—Liquor and anise-seed cordial. 66o

1266 Puig & Llagosteras Bros., Barcelona.—Vinegar. 66o

1267 Llobet, Antonio Maria, Barcelona.—Wine. 66o

1268 Patiño, Josè Maria, Cabeza de Vaca, Province of Badajoz.—Wine. 66o

1269 Carrasco, Alfonso, Guareña. Province of Badajoz.—Wine. 66o

1270 Sifredi, Juan Bautista, Almendralejo, Province of Badajoz.—Brandy and wine. 66o

1271 Paredes, Carlos, Guareña, Province of Badajoz.—Muscatel wine. 66o

1272 Cortès, José Inocente, Guareña, Province of Badajoz.—Pedro Jimenez wine. 66o

1273 Lopez, Aureliano, Badajoz.—Red and white wine. 66o

1274 Benito y Reoyo, Genaro, Búrgos. —Brandy. 66o

1275 Regulez, Dionisio, Miranda de Ebro, Province of Búrgos.—Wine. 66o

1276 San Roman, Agustin Lopez de, Valle de Mena, Province of Búrgos.—Red and white wine. 66o

1277 Goya y Lopez, Marcelino, Búrgos.—Vinegar. 66o

1278 Franco, Ramon Santivañez, Casar de Palomero, Province of Cáceres. —Wine. 66o

1279 Olivares, Jeronimo Sande, Garrovillas, Province of Cáceres.—Wine. 66o

1280 Bustamante, Bernardino, Villamiel, Province of Cáceres.—Wine. 66o

1281 Bacas y Estévez, Ignacio, Cilleros, Province of Cáceres.—Wine. 66o

1282 Herran & Co., Jerez de la Frontera, Province of Cadiz.—Wine. 66o

1283 Troya, Ildefonso, Prado del Rey, Province of Cadiz.—Wine. 66o

1284 Hontoria y Tezanos, Joaquin, Sanlúcar, Province of Cadiz.—Wine. 66o

1285 Hidalgo y Verjano, Eduardo, Sanlúcar, Province of Cadiz.—Wines and vinegar. 66o

1286 Blanco, Antonio, Prado del Rey, Province of Cadiz.—Wine. 66o

1287 Argüeso y Argüeso, Leon de, Sanlúcar, Province of Cadiz.—Wine. 66o

Animal and Vegetable Products.

1288 Martinez, Antonio, Sanlúcar, Province of Cadiz.—Wine. 660

1289 Linares y Obeso, Diego, Sanlúcar, Province of Cadiz.—Wine. 660

1290 Urmeneta, Fermin de, Chiclana, Province of Cadiz.—Brandy. 660

1291 Sanchez, Antonio, Chiclana, Province of Cadiz.—Wine. 660

1292 Rivas, Francisco Martinez de, Chiclana, Province of Cadiz.—Wine. 660

1293 Hugues, Guillermo H., Puerto de Santa Maria, Province of Cadiz.—Wine. 660

1294 Alvarez, Serafin, Puerto de Santa Maria, Province of Cadiz.—Wine. 660

1295 Segundo, Federico, Puerto de Santa Maria, Province of Cadiz.—Wine. 660

1296 Rudolph, Federico, Puerto de Santa Maria, Province of Cadiz.—Wine. 660

1297 Carli, Ramon, Puerto de Santa Maria, Province of Cadiz.—Wine. 660

1298 Pico, Josè Maria, Puerto de Santa Maria, Province of Cadiz.—Wine. 660

1299 Pró, Josè Maria, Puerto de Santa Maria, Province of Cadiz.—Wine. 660

1300 Parilla, Josè de Puentes, Jerez de la Frontera, Province of Cadiz.—Wine. 660

1301 Gonzalez, Biass & Co., Jerez de la Frontera, Province of Cadiz.—Wines. 660

1302 Santarelli Bros., Jerez de la Frontera, Province of Cadiz.—Wines. 660

1303 Lopez, Juan Antonio, Widow of, Jerez de la Frontera, Province of Cadiz.—Wines. 660

1304 Lebrun & Co., La Orotava, Canary Islands.—Wines. 660

1305 Davison, Guillermo, & Co., La Orotava, Canary Islands.—Wines. 660

1306 Carpinter & Co., La Orotava, Canary Islands.—Wines. 660

1307 Bruce, Hamilton, & Co., La Orotava, Canary Islands.—Wines. 660

1308 Monteverde, Antonio, La Orotava, Canary Islands.—Wine. 660

1309 Tolosa, Fernando, La Orotava, Canary Islands.—Wine. 660

1310 Lopez, Juan Josè Barriuso, La Victoria, Canary Islands.—Wines and brandies. 660

1311 Diego, Wood & Co., Las Palmas, Canary Islands.—Wines. 660

1312 Castello y Olivares, Josè del, Las Palmas, Canary Islands.—Wines. 660

1313 Vega Grande, Count of, Las Palmas, Canary Islands.—Wine. 660

1314 Avilès, Nicolàs, Las Palmas, Canary Islands.—Wine. 660

1315 Quevedo y Perez, Josè C., Isle of Gran Canaria, Canary Islands.—Wines. 660

1316 Gouriè, Alfonso, Las Palmas, Canary Islands.—Wines. 660

1317 Quintana, Juan de, Las Palmas, Canary Islands.—Wine. 660

1318 Massieu, Domingo, Balsequillo, Canary Islands.—Wine. 660

1319 Peraza, Alejandro, Granadilla, Canary Islands.—Wine. 660

1320 Llovera y Llovet, Vicente, Masia de Cucalon, Province of Castellon.—Wine. 660

1321 Villores, Marquis of, Torreblanco, Province of Castellon.—Wines. 660

1322 Vilanova y Piera, Pascual, Alcalá de Chisvert, Province of Castellon.—Wines. 660

1323 Provincial Board of Agriculture, Borriol, Province of Castellon.—Vinegar and wines. 660

1324 Ripolles y Perez, Manuel, Castellon.—Brandies. 660

1325 Gascó, F. B., Castellon.—Brandy. 660

1326 Climent, Vicente, Castellon.—Wines. 660

1327 Cloramunt, Hilarion, Vinaroz, Province of Castellon.—Wines. 660

1328 Mazorra, Mateo, & Son, Valdepeñas, Province of Ciudad-Real.—Wine. 660

1329 Mazarron, Miguel, Valdepeñas, Province of Ciudad-Real.—Wines. 660

1330 Mudela, Marquis of, Valdepeñas, Province of Ciudad-Real.—Wines. 660

1331 Fraile, Maria de la Asuncion Valdepeñas, Province of Ciudad-Real.—Wines. 660

1332 Peinado y Lasa, Tiburcio, Tomesollo, Province of Ciudad-Real.—Brandy. 660

1333 Villena y Parra, Sinforiano, Tomesollo, Province of Ciudad-Real.—Brandy and spirits of wine. 660

1334 Ramirez, Primo, Tomesollo, Province of Ciudad-Real.—Brandy and spirits of wine. 660

1335 Gijon, Trinidad, Torralba, Province of Ciudad-Real.—Wine. 660

1336 Delgado y Palacios, Juan, Ciudad-Real.—Alcohol and anise-seed cordial. 660

1337 Ruiz, Romualdo, Torralba, Province of Ciudad-Real.—Wines. 660

1338 Medraño, José, Ciudad-Real.—Wine. 660

1339 Soria, Marciano de, Valdepeñas, Province of Ciudad-Real.—Wine. 660

1340 Avansay, Hipòlito, & Son, Valdepeños, Province of Ciudad-Real.—Wine. 660

1341 Blanco y Alcalde, Rafael, Cabra, Province of Córdoba.—Wine. 660

1342 Carretero, Pedro, Córdoba.—Wine. 660

1343 Molina, Isidro, Rute, Province of Córdoba.—Wine. 660

1344 Perez, Diego Ecija, Rute, Province of Córdoba.—Brandy. 660

1345 Ruiz, Francisco Moreno, Doña Mencia, Province of Córdoba.—Brandy. 660

1346 Calvo, Josè Maria, Cabra, Province of Córdoba.—Brandies. 660

1347 Rubio, Josè Calvo, Aguilar, Province of Córdoba.—Montilla wine. 660

1348 Várgas, Sebastian, Villaviciosa, Province of Córdoba.—Wines. 660

1349 Infante, Josè Escobar, Villaviciosa, Province of Córdoba.—Wine. 660

1350 Arribas, Antonio Escobar, Villaviciosa, Province of Córdoba.—Wine. 660

Animal and Vegetable Products.

1351 Mòdenes, Juan, R., Baena, Province of Córdoba.—Wines. 66o

1352 Neges, Francisco de Paula, Baena, Province of Córdoba.—Wine. 66o

1353 Fernandez, Francisco, Baena, Province of Córdoba.—Wine. 66o

1354 Salas, Francisco Solano, Montilla, Province of Córdoba.—Montilla wine. 66o

1355 Jurado, José, Montilla, Province of Córdoba.—Montilla wine. 66o

1356 Raigon, Antonio, Montilla, Province of Córdoba.—Montilla wine. 66o

1357 Navarro, Antonio José, Montilla, Province of Córdoba.—Montilla wine. 66o

1358 Alvear, Carlos, Montilla, Province of Córdoba.—Montilla wine. 66o

1359 Alvear y Ward, Francisco, Montilla, Province of Córdoba.—Montilla wine. 66o

1360 Polo, Bartolomé, Montilla, Province of Córdoba.—Montilla wine. 66o

1361 Canela, José, Lucena, Province of Córdoba.—Montilla wine. 66o

1361*a* Canela, Antonio, Lucena, Province of Córdoba.—Montilla wine. 66o

1362 Sotomayor, Eduardo Alvarez, Lucena, Province of Córdoba.—Wine. 66o

1363 Valle, José Muñoz, Lucena, Province of Córdoba.—Wine. 66o

1364 Valenzuela, José Valle, Lucena, Province of Córdoba.—Wine. 66o

1365 Algar, José Ruiz de, Lucena, Province of Córdoba.—Wine. 66o

1366 Gallardo, José, Montilla, Province of Córdoba.—Wines. 66o

1367 Villalba y Sotomayor, Manuel, Montilla, Province of Córdoba.—Montilla wine. 66o

1368 La Corte, Marquis of, Cabra, Province of Córdoba.—Wines. 66o

1369 López, Pedro, Córdoba.—Wine. 66o

1370 Neyralores, Gerardo, Fao, Province of La Coruña.—White wine. 66o

1371 Bustindui, José Antonio, San Clemente, Province of Cuenca.—Wines. 66o

1372 Moreno, Domingo, Tarancon, Province of Cuenca.—Wine. 66o

1373 Retamoso, Count of, Tarancon, Province of Cuenca.—Wine and brandy. 66o

1374 Torre y Salto, Antonio de la, Tarancon, Province of Cuenca.—Red wine. 66o

1375 Valera, Julian Martinez, Chilaron, Province of Cuenca.—Red wine. 66o

1376 Carné, José, Tarancon, Province of Cuenca.—Red wine. 66o

1377 Escobar y del Campo, Francisco, Rubielos Bajos, Province of Cuenca.—Red wine. 66o

1378 Vilaret, Agustin, Blanes, Province of Gerona.—Malmsey wine. 66o

1379 Descals, Francisco Puig, Rozar, Province of Gerona.—Wine. 66o

1380 Vega y Tejada, Ezequiel de la, Guadalajara.—Wines. 66o

1381 Martinez, Gregorio Garcia, Guadalajara.—Wine. 66o

1382 Reyes, Juan A., Guadalajara.—Wine. 66o

1383 Muñoz y Mendez, Eugenio, Humanes, Province of Guadalajara.—Wine. 66o

1384 Marti, Diego Garcia, Guadalajara.—Wines. 66o

1385 Iñiguez, José, Gibraleon, Province of Huelva.—Wine and brandy. 66o

1386 Cepeda, Ignacio de, Almonte, Province of Huelva.—Wine and vinegar. 66o

1387 Roldan, Manuel Moreno, Almonte, Province of Huelva.—Wine. 66o

1388 Acebedo, Francisco, Almonte, Province of Huelva.—Manzanilla wine. 66o

1389 Lagarú, Francisco, Almonte, Province of Huelva.—White wine. 66o

1390 Gonzalez, Nicolás Gomez, Huelva.—Wines and brandy. 66o

1391 Cueva, Fernando de la, Huelva.—Wines and brandy. 66o

1392 Diaz y Gomez, Eduardo, Huelva.—Wines. 66o

1393 Mesa, Francisco Carrion, Huelva.—Brandy and anise-seed cordial. 66o

1394 Martin & Colombo, Huelva.—Alcohol and brandy. 66o

1395 Lopez, Luis Maria, Huelva.—White wine. 66o

1396 Quintero, Juan Garcia, Huelva.—Vinegar. 66o

1397 Torre y Figueroa, Antonio de la, Huelva.—Red wine. 66o

1398 Penillos, Garcia & Co., Bollullos, Province of Huelva.—Wines. 66o

1399 Society "Palma y Quesada," Aguilar, Province of Córdoba.—Wines. 66o

1400 Garcia y Ruiz, Pedro, Bollullos, Province of Huelva.—Wines. 66o

1401 Neble, José Maria, Bollullos, Province of Huelva.—Wines. 66o

1402 Garcia, Pedro, Bollullos, Province of Huelva.—Wines. 66o

1403 Dominguez, Francisco, Bollullos, Province of Huelva.—Brandies. 66o

1404 Molina, Federico, Rociana, Province of Huelva.—Wine, vinegar, and arrope (national drink). 66o

1405 Carrasco, José Maria, Donares, Province of Huelva.—Wine and vinegar. 66o

1406 Pinzon, Luis H., Moguer, Province of Huelva.—Wine and brandy. 66o

1407 Gimenez de Tejada Bros., Moguer, Province of Huelva.—Wines and vinegar. 66o

1408 Gimenez de Tejada, Servando, Moguer, Province of Huelva.—Wines and vinegar. 66o

1409 Flores, Antonio, Moguer, Province of Huelva.—Wines and brandy. 66o

1410 Ramirez, Francisco Perez, Moguer, Province of Huelva.—Wines. 66o

1411 Carmona, José Gomez, Moguer, Province of Huelva.—Wines and alcohol. 66o

1412 Iñiguez, Rafael, Moguer, Province of Huelva.—Wines 66o

1413 Thorices, Basilio, Moguer, Province of Huelva.—Wines and vinegar 660

1414 Thorices, Francisco R., Moguer, Province of Huelva.—Wines and vinegar. 660

1415 Gonzalez, Manuel, Moguer, Province of Huelva.—Wine and vinegar. 660

1416 Soldan, Antonio, La Palma, Province of Huelva.—Wines and brandy. 660

1417 Martinez, Eduardo, La Palma, Province of Huelva.—Wines. 660

1418 Cepeda, Manuel, La Palma, Province of Huelva.—Wines. 660

1419 Cueva, Manuel de la, La Palma, Province of Huelva —Anise-seed cordial and brandy. 660

1420 Pinzon, Rafael Iñiguez, Manzanilla, Province of Huelva.—Wines. 660

1421 Marquez, Rufino José, Manzanilla, Province of Huelva.—Wines. 660

1422 Estrado, Diego P., Manzanilla, Province of Huelva.—Wine. 660

1423 Rivera, Antonio Marquez, Manzanilla, Province of Huelva.—Wines. 660

1424 Mercado, Manuel, Manzanilla, Province of Huelva.—Wines. 660

1425 Rodriguez, José Trigueros, Province of Huelva.—Wines. 660

1426 Cecero y Barreda, Emilio, Trigueros, Province of Huelva.—Wine. 660

1427 Montiel, Eliezer, Trigueros, Province of Huelva.—Wines. 660

1428 Zambrano, José Antonio, Villalba del Alcor, Province of Huelva.—Wines and vinegar. 660

1429 Espina, José Maria, Villalba del Alcor, Province of Huelva.—Vinegar. 660

1430 Oliver, D. L., Huesca.--Wines. 660

1431 Arnal, Dionisio, Castelflorite, Province of Huesca.—Claret. 660

1432 Beòtegui, Fernando, Sena, Province of Huesca.—Claret. 660

1433 Salinas, Francisco, Castelflorite, Province of Huesca.—Wine. 660

1434 Laguna, Alejandro, Grañen, Province of Huesca.—Wines and claret. 660

1435 Budios, Leon, Sariñena, Province of Huesca.—Wine. 660

1436 Sampietra, Antonio, Sariñena, Province of Huesca.—Wine. 660

1437 Bastarás, Antonio, Lanaja, Province of Huesca.—Wine. 660

1438 Lasheras, Manuel, Alcubierre, Province of Huesca.—Claret. 660

1439 Lacruz, Francisco, Alcubierre, Province of Huesca.—Wine and claret. 660

1440 Adrid, Antonio, Alcubierre, Province of Huesca.—Claret. 660

1441 Calvo, Antonio, Poleñino, Province of Huesca.—Claret. 660

1442 Lasierra, Joaquin, Pallazuela, Province of Huesca.—Claret. 660

1443 Lasierra, Francisco, Pallazuela, Province of Huesca.—Claret. 660

1444 Lacruz, Antonio, Alcubierre, Province of Huesca.—Red wine. 660

1445 Ruata, Juan, Alcubierre, Province of Huesca.—Claret. 660

1446 Casamayor, Manuel, Alcubierre, Province of Huesca.—Red wine. 660

1447 Vasquez, Francisco, Cazorla, Province of Jaen.—Red wine. 660

1448 Marin, José, Cazorla, Province of Jaen.—Red wine. 660

1449 Almagro, Sebastian Cañada, Jaen. —San Vicente wine, brandy, and ratafia. 660

1450 Las Almenas, Count of, Espeluy, Province of Jaen.—White wine. 660

1451 Corporation of Arganza, Province of Leon.—Wines. 660

1452 Fernandez, José, Sahagan, Province of Leon.—Wines. 660

1453 Martinez, Lùcas Prado, Gallegguillos, Province of Leon.—Wine. 660

1454 Isla, Pedro, Benazolbe, Province of Leon.—Wine. 660

1455 Corporation of Valdefresno, Province of Leon.—Red wine. 660

1456 Corporation of Armunia, Province of Leon.—Red wine. 660

1457 Corporation of Valverde del Camino, Province of Leon.—Red wine. 660

1458 Corporation of Villaturiel, Province of Leon.—Red wine. 660

1459 Corporation of Valdemimbre, Province of Leon.—Red wine. 660

1460 Corporation of Pajares de los Oteros, Province of Leon.—Red wine. 660

1461 Corporation of Ponferrada, Province of Leon.—White wine. 660

1462 Corporation of Congosto, Province of Leon.—White wine. 660

1463 Bustamente, Angel Maria, Astorga, Province of Leon. —Anise-seed cordial. 660

1464 Bon, Ramon, Vinaixa, Province of Lérida.—Wine. 660

1465 Alòs, Francisco, Balaguer, Province of Lérida.—Wine. 660

1466 Codina, Ramon, Belloch, Province of Lérida.—Wine. 660

1467 Reixados, Antonio, Lèrida.—Wine. 660

1468 Corporation of Vinaixa, Lèrida.—Wine. 660

1469 Rubea, Miguel, Barbens, Province of Lérida. 660

1470 Lamolla Bros., Lérida.—Anise-seed cordial. 660

1471 Ochoa & Bro., Cervera del Rio Alhama, Province of Logroña.—Claret. 660

1472 Poves y Quintano, Galo de, Allauri, Province of Logroño.—Red wine. 660

1473 Caballero, Andrés, Cenicero, Province of Logroño.—Wine. 660

1474 Pascual y Caballero, Pedro, Cenicero, Province of Logroño.—Wine. 660

1475 Artacho, Juan Bautista, Cenicero, Province of Logroño.—Wine. 660

1476 Bobadilla, Natalio, Fernandez, Cenicero, Province of Logroño.—Wine. 660

1477 Bujanda, Pablo, Cenicero, Province of Logroño.—Wine. 660

1478 Sotes, Angel, Cenicero, Province of Logroño.—Wine. 660

1479 Nalda, Pedro Garcia, Cenicero, Province of Logroña.—Wine. 660

Animal and Vegetable Products.

1480 Olavarrieta, Manuel Saenz, Cenicero, Province of Logroño.—Wine. 66o

1481 Bazan, V. Celestino, Cenicero, Province of Logroño.—Wine. 66o

1482 Mata, Trinidad de la, Alfaro, Province of Logroño.—Anise-seed cordial, liquors, and gin. 66o

1483 Estèfani, Joaquin Gonzalez, Cuzcurrita, Province of Logroño.—Champagne. 66o

1484 Cirat y Villafranqueza, Count of, Haro, Province of Logroño.—Medoc. 66o

1485 Ozalla, Tomás, & Barona, Felix, Treviana, Province of Logroño.—Claret. 66o

1486 Zubia, Ildefonso, Logroño.—Sherry. 66o

1487 Andrade, Andrés, Velacha, Province of Lugo.—Red wine. 66o

1488 Varela, Manuel Diaz, Monforte, Province of Lugo—Wine. 66o

1489 Guitian, José, Amandi, Province of Lugo.—Wine. 66o

1490 Pascual, Widow & Sons of, Madrid.—Champagne and liquors. 66o

1491 Garcia y Garcia, Manuel, Arganda del Rey, Madrid.—Wine and brandy. 66o

1492 Cortès, Balbino, Madrid.—Wines. 66o

1493 San Roman, Agustin Lopez de, Navalcarnero, Province of Madrid.—Red wine and brandy. 66o

1494 Calatrava, Francisco Garcia, Alcobendas, Province of Madrid.—Muscatel wine and vinegar. 66o

1495 Navas, Manuel Garcia, Málaga.—Brandy. 66o

1496 Pino y Gomez, Julio del, Málaga.—Brandy. 66o

1497 Bueno, Joaquin, & Co., Málaga.—Brandy, wine and liquors. 66o

1498 Romero, Ramon Garcia, Málaga.—Wine. 66o

1499 Morales, Pedro, & Co., Ojen, Province of Málaga.—Brandy. 66o

1500 Muñoz, Atenodoro, Chapera, Province of Málaga.—Wines. 66o

1501 Saenz, I., Ronda, Province of Málaga.—Wines. 66o

1502 Menchero, Eduardo, Cartagena, Province of Múrcia.—Orange wine. 66o

1503 Ferro, Bartolomé, Cartagena, Province of Múrcia.—Wine. 66o

1504 Gil, Antonio Marsilla, Bullas.—Province of Múrcia.—Anise-seed milk and brandy. 66o

1505 Roca Bros., Múrcia.—Wines. 66o

1506 Spottorno, Bartolomé, Cartagena, Province of Múrcia.—Wine. 66o

1507 Castilla, Camilo, Corella, Province of Navarra.—Wines. 66o

1508 Gimenez, Babil, Tafalla, Province of Navarra.—Wine and brandy. 66o

1509 Orduña, Calisto, Cascante, Province of Navarra.—Wines. 66o

1510 Leizaur y Rodriguez, Gabino, Peralta, Province of Navarra.—Wine. 66o

1511 Anta y Temes, Federico, Orense.—Wines. 66o

1512 Bobo, Feliciano Perez, Orense.—Wines. 66o

1513 Amor, Bernardo, Orense.—Wines. 66o

1514 Romero, Javier, Orense.—Vinegar and brandy. 66o

1515 Vasquez, José, Orense.—Wine, vinegar, and brandy. 66o

1516 Leis, Widow of the Marquis of, Orense.—Wines. 66o

1517 Montenegro, Antonio, Orense.—Wine. 66o

1518 Mayo, Ignacio Anta, Orense.—Wine and brandy. 66o

1519 Diaz, Laureano Balbis, San Ciprian de Viñas, Province of Orense.—Wine. 66o

1520 Muñoz, Federico Rodriguez, San Ciprian de Viñas, Province of Orense.—Wine. 66o

1521 Rapela, Laureano Diaz, San Ciprian de Viñas, Province of Orense.—Wine. 66o

1522 Gogueira y Diaz, Manuel, San Ciprian de Viñas, Province of Orense.—Wines. 66o

1523 Diaz, Camila, San Ciprian de Viñas, Province of Orense.—Wine. 66o

1524 Fernandez y Conde, Pedro, San Ciprian de Viñas, Province of Orense.—Wine. 66o

1525 Novoa, Manual Ramiro, San Ciprian de Viñas, Province of Orense.—Wine. 66o

1526 Rapela, Manuel, San Ciprian de Viñas, Province of Orense.—Wine. 66o

1527 Mosquera, Antonio, Coles, Province of Orense.—Wine. 66o

1528 Mendez, Urbano Moreno, Verin, Province of Orense.—Wine. 66o

1529 Garcia, Jacobo André, Verin, Province of Orense.—Wine. 66o

1530 Moreno, Ramon Sanchez, Verin, Province of Orense.—Wine. 66o

1531 Velasco, Manuel de, Verin, Province of Orense.—Wine. 66o

1532 Salgado, Pedro Antonio, Barco de Valdeorras, Province of Orense.—Wine. 66o

1533 Salgado, Cárlos, Barco de Valdeorras, Province of Orense.—Wine. 66o

1534 Salgado, Joaquin Maria, Widow of, Barco de Valdeorras, Province of Orense.—Wine. 66o

1535 Alba, Telesforo, Barco, de Valdeorras, Province of Orense.—Wine. 66o

1536 Rivera, Ramon, Sejalbo, Province of Orense.—Wine. 66o

1537 Gonzalez, Antonio, Sejalbo, Province of Orense.—Wine. 66o

1538 Riobòo, José Fernandez, Sejalbo, Province of Orense.—Wine. 66o

1539 Bastos, Manuel Fernandez, Rivadavia, Province of Orense.—Wine. 66o

1540 Estèvez, José Vila, Rua de Valdeorras, Province of Orense.—Wine. 66o

1541 Mouré, Manuel, Rua de Valdeorras, Province of Orense.—Wines. 66o

1542 Losada, Maria Josefa, Rua de Valdeorras, Province of Orense.—Wine. 66o

Animal and Vegetable Products.

1543 Rey, Manuel Pereyro, Canedo, Province of Orense.—Wine. 660

1544 Labarta, Miguel, Canedo, Province of Orense.—Wines and vinegar. 660

1545 Vila, Francisco, Viana del Bollo, Province of Orense.—Wine. 660

1546 Bahamonde, Antonio Varela G., Castrelo de Miño, Province of Orense.—Wines. 660

1547 Gonzalez, Francisco, Petin, Province of Orense.—Wines. 660

1548 Diz, Manuel Fernandez, San Cipriano de Viñas, Province of Orense.—Wine. 660

1549 Board of Agriculture, Oviedo.—Cider. 660

1550 Zarracina, Tomás, Gijon, Province of Oviedo.—Cider. 660

1551 Dominguez, Miguel, Palencia.—Wine. 660

1552 Herrero, Pedro Romero, Palencia.—Wine. 660

1553 Cachurro, Modesto, & Bro., Dueñas, Province of Palencia.—Wines. 660

1554 Gutierrez, Juan Francisco, Palencia.—Wine. 660

1555 Balbas, José, Torquemada, Province of Palencia.—Wine. 660

1556 Palomino, Toribio, Torquemada, Province of Palencia.—Wine. 660

1557 Mora, Josè Manuel, Melogar de Yuso, Province of Palencia.—Wines. 660

1558 Monedero, Joaquin, Cevico de la Torre, Province of Palencia.—Wine. 660

1559 Martin, Francisco Garcia, Dueñas, Province of Palencia.—Wines. 660

1560 Sutelo & Veiga, Redondela, Province of Pontevedra.—Wines. 660

1561 Almansa, Eulogio Troncoso de, Puenteareas, Province of Pontevedra.—Wines. 660

1562 Blanco, Joaquin A. Piñeiro, Mourente, Province of Pontevedra.—Wines and vinegar. 660

1563 Onis, Federico, Cantalapiedra, Province of Salamanca.—Wines. 660

1564 Sierra, Viesca de la, Marquis of, Fregeneda, Province of Salamanca.—Port wine. 660

1565 Hortal, Ignacio, Fregeneda, Province of Salamanca.—Sweet wines. 660

1566 Corbalan, Juan, Saucelle, Province of Salamanca.—Wine. 660

1567 Martin, Lorenzo Calvo, Mogarraz, Province of Salamanca.—Wine. 660

1568 Hernandez, Ramon, Salamanca.—Rum and liquors. 660

1569 Gutierrez, Vicente, Reinosa, Province of Santander.—Gin. 660

1570 Cortines, Celis, Santander.—Liquors. 660

1571 Rasilla, José, Los Corrales, Province of Santander.—Liquors and wines. 660

1572 Ibarra, J. M., & Sons, Sevilla.—Wines. 660

1573 Penillos, Garcia & Co., Sevilla.—Wines. 660

1574 Valencia, Josè, Sevilla.—Wines. 660

1575 Olmedo, Juan, Sevilla.—Wine, liquor, and vinegar. 660

1576 Bordallo, Rodrigo, Sevilla.—Wine, liquors, and brandy. 660

1577 Huerta, Constantino de la, Sevilla.—Wine and vinegar. 660

1578 La Motilla, Marquis of, Sevilla.—White wine. 660

1579 Galindo, Widow of, Valencia, Province of Sevilla.—Wine and liquors. 660

1580 Silva & Arcos, Espartinas, Province of Sevilla.—Wines. 660

1581 Mayorga, Ramon Diaz, Moron, Province of Sevilla.—White wine and vinegar. 660

1582 Alvarez, José, Constantina, Province of Sevilla.—Wine and brandy. 660

1583 Rosa y Silva, José de la, Villamanrique, Province of Sevilla.—Wine and brandy. 660

1584 Romero, Enrique, Constantina, Province of Sevilla.—Brandy. 660

1585 Olmo, Sebastian del, Constantina, Province of Sevilla.—Brandy. 660

1586 Salcedo, José J. Gonzalez de, Constantina, Province of Sevilla.—Wine. 660

1587 Torres, Juan Lainez, Arahal, Province of Sevilla.—Wine. 660

1588 Capdevila, José Diaz, Arahal, Province of Sevilla.—Wine. 660

1589 Reina, Manuel Arias, Arahal, Province of Sevilla.—Wine. 660

1590 Zerpa, José, Villanueva del Ariscal, Province of Sevilla.—Wine. 660

1591 Amores, Manuel, Villanueva del Ariscal, Province of Sevilla.—Wine and vinegar. 660

1592 Lucena, Nicolás, Osuna, Province of Sevilla.—Wine. 660

1593 Celis, José G. de, Salteras, Province of Sevilla.—Wine. 660

1594 Arenas, Antonio Rivas, Cantillana, Province of Sevilla.—Brandy. 660

1595 Valle y Villar, Luis del, Lebrija, Province of Sevilla.—Wine. 660

1596 Rabio, Juan Miguel, Dos-Hermanos, Province of Sevilla.—Wine. 660

1597 Olivencia Bros., Olivares, Province of Sevilla.—Wine. 660

1598 Liendo, Manuel, Gines, Province of Sevilla.—Wine. 660

1599 Cotan, Antonio Garcia, Olivares, Province of Sevilla.—Vinegar. 660

1600 Siscar, Ramon, La Canonja, Province of Tarragona.—Wine. 660

1601 Robers, Sebastian Garcia de, Scala Dei, Province of Tarragona.—Wine. 660

1602 Peira y Mach, Agustin, Scala Dei, Province of Tarragona.—Wine. 660

1603 Gotell y Folch, Juan, Altafulla, Province of Tarragona.—Wine and vinegar. 660

1604 Grás, Pedro, Reus, Province of Tarragona.—Wine. 660

1605 Boulè, José, Reus, Province of Tarragona.—Wine and garnacha (national drink). 660

1606 Soberano & Co., Reus, Province of Tarragona.—Wine. 660

Animal and Vegetable Products.

1607 Fumaña Bros., Reus, Province of Tarragona.—Wine. 66o

1608 Abelló & Son, Reus, Province of Tarragona.—Wine. 66o

1609 Gil, Francisco, Reus, Province of Tarragona.—Wine. 66o

1610 Martí y Badia, Ramon, Reus, Province of Tarragona.—Mistela (national drink) and spirits of wine. 66o

1611 Plá, Francisco, Reus, Province of Tarragona.—Spirits of wine and anise-seed cordial. 66o

1612 Pujol y Salvat, Francisco, Reus, Province of Tarragona.—Garnacha (national drink) and muscatel wine. 66o

1613 Esteve, A., Widow & Son of, Reus, Province of Tarragona.—Vinegar and alcohol. 66o

1614 Sirvent y Oliver, Pedro, Reus, Province of Tarragona.—Wine and spirits of wine. 66o

1615 Clariano, Rafael, Reus, Province of Tarragona.—Wine. 66o

1616 Montagut, José, Reus, Province of Tarragona.—Wine and vinegar. 66o

1617 Fonts, Mariano, Reus, Province of Tarragona.—Wine. 66o

1618 Avelló y Boada, Pablo, Reus, Province of Tarragona.—Wine. 66o

1619 Pujol, José Odena, Reus, Province of Tarragona.—Muscatel wine. 66o

1620 Valero, Francisco, Reus, Province of Tarragona.—Port wine. 66o

1621 Rocamora, Pablo, Reus, Province of Tarragona.—Anise-seed brandy. 66o

1622 Domingo, Tomás, Reus, Province of Tarragona.—Brandy and wine. 66o

1623 Potan y Mico, Antonio, Vimbodi, Province of Tarragona.—Wine. 66o

1624 Estradé y Alsamora, José, Vimbodi, Province of Tarragona.—Wine. 66o

1625 Plassa y Alfonso, José, Vimbodi, Province of Tarragona.—Mistela (national drink). 66o

1626 Roig y Sancho, Isidro, Vimbodi, Province of Tarragona.—Mistela (national drink). 66o

1627 Aragonés, Ramon Zamora, Poboleda, Province of Tarragona.—Garnacha (national drink) and wine. 66o

1628 Figuerolo, Juan, Tarragona.—Wine. 66o

1629 Morera y Pulles, A., & Son, Tarragona.—Wine and imitations, anise-seed cordial, and garnacha (national drink). 66o

1630 Carey Bros. & Co., Tarragona.—Wine and imitations. 66o

1631 Montoliu, Placido Maria de, Morell, Province of Tarragona.—Wine. 66o

1632 Sardá, Pablo, Tarragona.—Wine. 66o

1633 Consul & Virgili, Tarragona.—Wine. 66o

1634 Nogues, Romeu & Co., Tarragona.—Wine and brandy. 66o

1635 Oliva, Gregorio, Tarragona.—Spirits of wine and brandy. 66o

1636 Roig, Ponseti & Co., Tarragona.—Wine. 66o

1637 Compte, Jaime, Torraja, Province of Tarragona.—Wines. 66o

1638 Bella, Juan, Valls, Province of Tarragona.—Garnacha wine. 66o

1639 Coll, José, Valls, Province of Tarragona.—Muscatel wine. 66o

1640 Roca y Murtra, Ramon, Valls, Province of Tarragona.—Spirits of wine and anise-seed cordial. 66o

1641 Anglès y Font, José, Ulldemolins, Province of Tarragona.—Red wine. 66o

1642 Montlleo y Mor, José, Ulldemolins, Province of Tarragona.—Mistela (national drink). 66o

1643 Figuerola, Antonio, Porrera, Province of Tarragona.—Wine. 66o

1644 Compte, José Amorós, Porrera, Province of Tarragona.—Wine. 66o

1645 Amorós, Vicente, Porrera, Province of Tarragona.—Wine. 66o

1646 Montlleo, Jaime, Porrera, Province of Tarragona.—Garnacha wine. 66o

1647 Pellicier, Francisco, Porrera, Province of Tarragona.—Garnacha wine. 66o

1648 Simó, Pio, Porrera, Province of Tarragona.—Wines. 66o

1649 Simó, José Maria, Porrera, Province of Tarragona.—Garnacha wine. 66o

1650 Llaberia, Joaquin Sabatèr, Porrera, Province of Tarragona.—Wine. 66o

1651 Capdevila é Ibern, José, Torredembarra, Province of Tarragona.—Wine. 66o

1652 Sanroma y Boada, Domingo, Torredembarra, Province of Tarragona.—Mistela (national drink). 66o

1653 Llorat y Fontanillas, José, Torredembarra, Province of Tarragona.—Wine. 66o

1654 Castellarnau, Joaquin de, Perafort, Province of Tarragona.—Wine. 66o

1655 Mirét, Juan, Vilaseca, Province of Tarragona.—Mistela (national drink). 66o

1656 March, Juan de, Vilaseca, Province of Tarragona.—Mistela (national drink) and wine. 66o

1657 Dalmau y Amat, Domingo de, Montbrio de Tarragona, Province of Tarragona.—Wine and mistela (national drink). 66o

1658 Porqueras, Juan, Vilella Alta, Province of Tarragona.—Malmsey wine. 66o

1659 Boulé, José, Reus, Province of Tarragona.—Wines. 66o

1660 Viñas y Pamies, José, Poboleda, Province of Tarragona.—Wine. 66o

1661 Montaner y Rincon, José, Reus, Province of Tarragona.—Wine. 66o

1662 Caselles, Pedro, & Co., Reus, Province of Tarragona.—Wine. 66o

1663 Borras, S. S., & Lassalle, Reus, Province of Tarragona.—Wines and imitations. 66o

1664 Ferratges, José Vidiella, Reus, Province of Tarragona.—Wine. 66o

1665 Salvadó, Mateó, Riudoms, Province of Tarragona.—Wine. 66o

1666 Sarro y Salat, Antonio, Bàrbara, Province of Tarragona.—Brandy. 66o

1667 Aragonés, Tomás, Cornudella, Province of Tarragona.—Wines. 66o

Animal and Vegetable Products.

1668 Folch, Joaquin Brú, Cambrils, Province of Tarragona.—Wine. 66o

1669 Gallisa, Juan Aragonés, Dosaiguas, Province of Tarragona.—Wine. 66o

1670 Crusat, Bartolomé Llebaria, Dosaiguas, Province of Tarragona.—Wine. 66o

1671 Cabré, José Nolla, Dosaiguas, Province of Tarragona.—Wine. 66o

1672 Anlestia, José Ciurana, Dosaiguas, Province of Tarragona.—Wine. 66o

1673 Aragonès, Juan Sangenis, Dosaiguas, Province of Tarragona.—Wine. 66o

1674 Magriña, Luis de, Falset, Province of Tarragona.—Wines. 66o

1675 Anguerá y Angles, Ramon, Falset, Province of Tarragona.—Mistela (national drink) and wine. 66o

1676 Ortiz, Emilio, Huelbes, Ocaña, Province of Toledo.—Wine. 66o

1677 Gurrido, Valentin, Ocaña, Province of Toledo.—Wine and brandy. 66o

1678 Caballero y Cabello, Martin, Ocaña, Province of Toledo.—Wine. 66o

1679 Basarán, Isidoro, Olias del Rey, Province of Toledo.—Wine. 66o

1680 Lázaro, Olallo, Talavera de la Reina, Province of Toledo.—Anise-seed cordial. 66o

1681 Perera & Sons, Sagunto, Province of Valencia.—Wine. 66o

1682 Requena, Manuel, & Sons, Játiva, Province of Valencia.—Wine. 66o

1683 Suñer, Enrique, Masanasa, Province of Valencia.—Dr. Suñer's liquor. 66o

1684 Caruana Bros., Bétera, Province of Valencia.—Wine. 66o

1685 Comas y Delgado, Rafael, Onteniente, Province of Valencia.—Wine. 66o

1686 Villar, Manuel, Sagunto, Province of Valencia.—Wine. 66o

1687 Lluch, Francisco, Sagunto, Province of Valencia.—Wine. 66o

1688 Valero, Juan, Requena, Province of Valencia.—Wine. 66o

1689 Piñango, Norberto, Requena, Province of Valencia.—Wine. 66o

1690 Omlin, Juan, Requena, Province of Valencia.—Wine. 66o

1691 Moron, Francisco de P., & Co., Albaida, Province of Valencia.—Brandy. 66o

1692 Pujol, José Maria, Valencia.—Wine. 66o

1693 Gisbert, Mariano, Torrente, Province of Valencia.—Wine. 66o

1694 Iranzo, Jaime, Turis, Province of Valencia.—Wine. 66o

1695 Navarro, Eduardo, Turis, Province of Valencia.—Wine. 66o

1696 Latorre, Federico, Turis, Province of Valencia.—Wine. 66o

1697 Artigues, Serapio, Játiva, Province of Valencia.—Wine. 66o

1698 Olias, Vicente, Chiva, Province of Valencia.—Wine. 66o

1699 Torner, Juan, Carcagente, Province of Valencia.—Orange wine 66o

1700 Ferrandis y Soler, José, Onteniente, Province of Valencia.—Wine. 66o

1701 Lorenzo Puig Bros., Monsenat, Province of Valencia.—Wine. 66o

1702 Pieza, Honorato, Monsenat, Province of Valencia.—Wine. 66o

1703 Pardo, Joaquin, Valencia.—Orange wine. 66o

1704 Reig y Garcia, Fernando, Puebla, de Vallbona, Province of Valencia.—Wine. 66o

1705 Albors, Cárlos, Picasent, Province of Valencia.—Wine. 66o

1706 Bodi, Salvador, Carcagente, Province of Valencia.—Orange wine. 66o

1707 Lassala, Vicente, Llano de Cuarte, Province of Valencia.—Wine. 66o

1708 Ricart y Sanz, Salvador, Rafelbuñol, Province of Valencia.—Wine. 66o

1709 Starico y Ruiz, Ricardo, Ribarroja, Province of Valencia.—Wine. 66o

1710 Bosca y Pascual, Blas, Puebla de Rugat, Province of Valencia.—Wine. 66o

1711 Calabuyg, Bartolomé, Valencia.—Wine. 66o

1712 Cañamás, José Damian Capsir, Puebla de Rugat, Province of Valencia.—Wine. 66o

1713 Domenech, Angel, Valencia.—Wine and orange wine. 66o

1714 Lavarias, Antonio, Cheste, Province of Valencia.—Red wine. 66o

1715 Guillen, Valero Navarro, Cheste, Province of Valencia.—Red wine. 66o

1716 Campos, Vicente, Cheste, Province of Valencia.—Red wine. 66o

1717 Garcia, Francisco, Cheste, Province of Valencia.—Red wine. 66o

1718 Tarin, German, Cheste, Province of Valencia.—Red wine. 66o

1719 Luay, Leoncio, Cheste, Province of Valencia.—Red wine. 66o

1720 Marti, Salvador, Cheste, Province of Valencia.—Red wine. 66o

1721 Jordan, Vicente, Cheste, Province of Valencia.—Wine. 66o

1722 Tamarit, Eulogio, Cheste, Province of Valencia.—Wine. 66o

1723 Garcia, Pascual, Cheste, Province of Valencia.—Wine. 66o

1724 Jordan, Manuel, Cheste, Province of Valencia.—Wine. 66o

1725 Garcia, Luis Campos, Cheste, Province of Valencia.—Wine. 66o

1726 Ortega, Vicente, Valencia.—Liquors. 66o

1727 Costa, José Plá, Olleria, Province of Valencia.—Wine. 66o

1728 Diego, Francisco Polop, Játiva, Province of Valencia.—Brandy, mistela, and wine. 66o

1729 Nager y Juan, Pedro J., Olleria, Province of Valencia.—Wine. 66o

1730 Calvo, Francisco, Valencia.—Orange wine. 66o

1731 Herrera, José, Nava del Rey, Province of Valladolid.—Wine. 66o

1732 Sañudo, Ramon Trueba, Nava del Rey, Province of Valladolid.—Wine. 66o

1733 Pimentel, Pedro Antonio, Rueda, Province of Valladolid.—Vinegar. 66o

Animal and Vegetable Products.

1734 Villalva, Benigno, Corrales de Duero, Province of Valladolid.—Wine. 66o

1735 Alonso, Bernardo Real, Peñaflor, Province of Valladolid.—Wine. 66o

1736 Prasencio, Mariano, Tudela de Duero, Province of Valladolid—Wine. 66o

1737 Zunzúnegui, Angel, Cabezon, Province of Valladolid.—Wine. 66o

1738 Malfaz, Agustin, Cabezon, Province of Valladolid.—Wine. 66o

1739 Revila, Antonio, Cabezon, Province of Valladolid.—Wine. 66o

1740 Ganzalez, Benito, Cabezon, Province of Valladolid.—Wine. 66o

1741 Villaverde, Rafael, Cabezon, Province of Valladolid.—Wine. 66o

1742 Sotillo, Manuel, Valladolid.—Wine. 66o

1743 Redondo Bros., Valladolid.—Wine. 66o

1744 Zurbano, José, Cabezon, Province of Valladolid.—Wine. 66o

1745 Red, Baltasar de la, Cabezon, Province of Valladolid.—Wine. 66o

1746 Pimentel, Casilda Arévalo de, Rueda, Province of Valladolid.—Wine. 66o

1747 Vaca, Francisco Cabeza de, Puente Duero, Province of Valladolid.—Wine. 66o

1748 Caballero, Marquis of, Nava del Rey, Province of Valladolid.—Wine. 66o

1749 Eyries, Agustin, Valladolid.—Wine. 66o

1450 Diaz, Juan, Valladolid.—Liquors. 66o

1751 Mesones, Mariano Bayon, Rueda, Province of Valladolid.—Wine. 66o

1752 Corporation of Medina de Campo, Province of Valladolid.—Wine. 66o

1753 Diez, Crispulo Paredes, Valladolid.—Liquors. 66o

1754 Gimeno, Mariano, Rueda, Province of Valladolid.—Wine. 66o

1755 Board of Agriculture, Valbuena de Duero, Province of Valladolid.—Wine and brandy. 66o

1756 Cosio y Cuenca, Eloy, Valladolid.—Liquors. 66o

1757 Diez y Diez, Luis, Valladolid.—Wine. 66o

1758 Montero, Ramon Bayon, Rueda, Province of Valladolid.—Wine. 66o

1759 Arias, Francisco Galan, Fuentesauco, Province of Zamora.—Wine. 66o

1760 Serrano, Manuel, Formoselle, Province of Zamora.—Wine. 66o

1761 Puga, Sons of, Zamora.—Liquors. 66o

1762 Requejo, Miguel, Zamora.—Wine. 66o

1763 Furitero, Leonardo, Toro, Province of Zamora.—Wine. 66o

1764 Villaboa, Victoriano, Zamora.—Wine. 66o

765 Weches, Santiago, Coreses, Province of Zamora.—Wine. 66o

766 Temprano, José, Verdemarban, Province of Zamora.—Wine. 66o

1767 Pernia, Nicasio, Castro Verde, Province of Zamora.—Wine. 66o

1768 Dieguez, Manuel, Zamora.—Anise-seed cordial. 66o

1769 Royo, Mariano, Zamora.—Alcohol. 66o

1770 Porta, Mariano, Zaragoza.—Anise-seed cordial and prepared anise-seed used for its manufacture. 66o

1771 Pórtoles, Miguel, Zaragoza.—Anise-seed cordial. 66o

1772 Lichtenstein, Julio, Cariñena, Province of Zaragoza.—Wine. 66o

1773 Lahoz, Victorio, Escatron, Province of Zaragoza.—Anise-seed cordial. 66o

1774 Ariño, Antonio, Escatron, Province of Zaragoza.—Anise-seed cordial. 66o

1775 Lacaze, Juan Pablo, Zaragoza.—Wine. 66o

1776 Figueras, Iñigo, Zaragoza.—Wine. 66o

1777 Perez, Mariano, Zaragoza.—Wine. 66o

1778 Vallier, José, Zaragoza.—Wine. 66o

1779 Bailo, Angel, Habana, Cuba.—Liquors. 66o

1780 Zulueta, Julian, Habana, Cuba.—Brandies. 66o

1781 Soler, L., & Co., Cárdenas, Cuba.—Brandies. 66o

1782 Central Commission of the Island, Habana, Cuba.—Sherry. 66o

1783 Domech, Pedro, Jerez.—Sherry. 66o

1784 Duff, Gordon & Co., Jerez.—Sherry. 66o

1785 Loring Bros., Málaga.—Málaga and Montilla wine. 66o

1786 Schoki, Málaga.—Málaga. 66o

1787 Vintro y Vila, Agustin, Barcelona.—Preserved yeast. 661

1788 Cano, Antonio, Carrion de Calatrava, Province of Ciudad-Real.—Crackers. 661

1789 Rivera Guarner, Alicante.—Chocolate. 661

1790 Barrengoa, Dámaso de, Ciudad-Real.—Chocolate. 661

1791 Blanco, José Maria, Santiago, Province of La Coruña.—Chocolate. 661

1792 Leal, Francisco, Coruña.—Chocolate. 661

1793 Castro, Enrique Calvo de, Ferrol, Province of La Coruña.—Chocolate. 661

1794 Palá, Juan, Huesca.—Chocolate. 661

1795 Prado, Máximo Alonzo de, Léon.—Chocolate. 661

1796 Alonso, Pedro Antonio, Mansilla de las Mulas, Province of Leon.—Chocolate. 661

1797 Fernandez, José, Sahagun, Province of Leon.—Chocolate. 661

1798 Alonso, Blas, Widow of, Leon.—Chocolate. 661

1799 Silva, Tomás Rubio, Astorga, Province of Leon.—Chocolate. 661

Animal and Vegetable Products.

1800 Panero y Martinez, Juan, Astorga, Province of Leon.—Chocolate. 661

1801 Garcia, Manuel, Lérida.—Chocolate. 661

1802 Reixades, Antonio, Lérida.—Chocolate. 661

1803 Ruiz, Francisco Enciso de, Munilla, Province of Logroño.—Chocolate. 661

1804 Fernandez, Francisco, & Bro., Lugo.—Chocolate. 661

1805 Meric & Co., Madrid.—Chocolate. 661

1806 Lopez, Matias, Madrid.—Chocolate. 661

1807 Lopez & Vaquez, Madrid.—Chocolate. 661

1808 Dubois, L., Widow of, Múrcia.—Chocolate. 661

1809 Bobo, Francisco Perez, Orense.—Chocolate. 661

1810 Anta y Temes, Federico, Orense.—Chocolate. 661

1811 Fernandez, Antonio Maria, Oviedo.—Chocolate. 661

1812 Acebal y Menendez, Benito, Oviedo.—Chocolate. 661

1813 Ortiz, Tadeo, & Sons, Palencia.—Chocolate. 661

1814 Garcia, Benito, Pontevedra.—Chocolate. 661

1815 Crespo, José Sanchez.—Chocolate. 661

1816 Pies, Federico Sanchez, Salamanca.—Chocolate. 661

1817 Nácar, Juan Prieto, Salamanca.—Chocolate. 661

1818 Ramos, Eustaquio, Soria.—Chocolate. 661

1819 Macaya, Juan, Reus, Province of Tarragona.—Chocolate. 661

1820 Gonzalez, José Maria, Talavera, Province of Toledo.—Chocolate. 661

1821 Lázaro, Olallo, Talavera, Province of Toledo.—Chocolate. 661

1822 Cuevas & Garcia, Valladolid.—Chocolate. 661

1823 Escarda, Salustiano Mariño, Benovente, Province of Zamora.—Chocolate. 661

1824 Escudero, Dionisio, & Son, Tarazona, Province of Zaragoza.—Chocolate. 661

1825 Ascaso, Domingo, Zaragoza.—Chocolate. 661

1826 Iriarte, José Maria, Habana, Cuba.—Chocolate. 661

1827 Fernandez, José, Matanzas, Cuba.—Chocolate. 661

1828 Plana & Co., Habana, Cuba.—Chocolate. 661

1829 Amores, Julian, Elche de la Sierra, Province of Alcabete.—Olive oil. 662

1830 Maroni, José, Hellin, Province of Alcabete.—Olive oil. 662

1831 Sandoval, José Joaquin, Jacarilla, Province of Alicante.—Olive oil. 662

1832 Payas, Ciro Perez, Monóvar, Province of Alicante.—Olive oil. 662

1833 Rico, Antonio Perez, Monóvar, Province of Alicante.—Oil. 662

1834 Verdú, Remedios Perez, Monóvar, Province of Alicante.—Olive oil. 662

1835 Albert, L. Perez, & Co., Monóvar, Province of Alicante.—Olive oil. 662

1836 Alegret, Emilio Perez, Ibi, Province of Alicante.—Olive oil. 662

1837 Pina, Juan Bautista, Monforté, Province of Alicante.—Olive oil. 662

1838 Verdú y Perez, Joaquin, Monóvar, Province of Alicante.—Olive oil. 662

1839 Moreno, Pedro Contreras, Velez-Rubio, Province of Almeria.—Olive oil. 662

1840 Trell, Miguel del, Berja, Province of Almeria.—Natural olive oil. 662

1841 Meson, José, Arenas de San Pedro, Province of Avila.—Olive oil. 662

1842 Patiño, José Maria, Cabeza de Vaca, Province of Badajoz.—Olive oil. 662

1843 Cáceres, Damian, Guareña, Province of Badajoz.—Olive oil. 662

1844 Fernandez, Secundino, Zafra, Province of Badajoz.—Olive oil. 662

1845 Delgado, Francisco Gomez, Badajoz.—Olive oil. 662

1846 Fluxá y Palet, Miguel, Selva, Balearic Islands.—Oils. 662

1847 Zaforteza, Juan Burguez, Buñolas, Balearic Islands.—Oils. 662

1848 Puig & Llagostera Bros., Barcelona.—Olive oil. 662

1849 Porcar y Tió, Manuel, Barcelona.—Olive oil. 662

1850 Fornell, Ramon, & Co., Barcelona.—Olive oil. 662

1851 Oliver y Coll, Francisco, Ripoll, Province of Barcelona.—Olive oil. 662

1852 Pons, Antonio Castell de, Esparraguera, Province of Barcelona.—Olive oil. 662

1853 Ferran, Manuel, Barcelona.—Olive oil. 662

1854 Soler y Stussa, Valentin, Barcelona.—Oil. 662

1855 Castell de Mas, Joaquin Pedrosa de, Esparraguera, Province of Barcelona.—Olive oil. 662

1856 Villegas, Vicente Villarroel, Alcántara, Province of Cáceres.—Olive oil. 662

1857 Ayaz, José Diaz, Plasencia, Province of Cáceres.—Olive oil. 662

1858 Santivañez, Pedro José, Casar de Palomero, Province of Cáceres.—Olive oil. 662

1859 Arjona, Manuel, Jaraiz, Province of Cáceres.—Olive oil. 662

1860 Gomez, Juan Crisóstomo Gomez, Villamiel, Province of Cáceres.—Olive oil. 662

1861 Botejana, Juan Vicente, Villas Buenas, Province of Cáceres.—Olive oil. 662

1862 Hernandez, Juan, Gata, Province of Cáceres.—Natural olive oil. 662

1863 Casillas, Ramon, Acebo, Province of Cáceres.—Olive oil. 662

1864 Bacás y Estevez, Ignacio, Cilleros, Province of Cáceres.—Olive oil. 662

Animal and Vegetable Products.

1865 Guerra, Felipe Leon, Gata, Province of Cáceres.—Olive oil. 662

1866 Cepeda, Julian, Jerte, Province of Cáceres.—Oil. 662

1867 Valmorisco, Pedro Navas, Guadalupe, Province of Cáceres.—Olive oil. 662

1868 Valiente, Eusebio, Hoyos, Province of Cáceres.—Olive oil. 662

1869 Luguiz y Lopez, Francisco, Puerto de Santa Maria, Province of Cadiz.—Olive oil. 662

1870 Artiles, Matias Helian, Las Palmas, Canary Islands.—Olive oil. 662

1871 Girona y Mato, Ramon, Alcora, Province of Castellon de la Plana.—Olive oil. 662

1872 Mascaró, José, Alcora, Province of Castellon de la Plana.—Olive oil. 662

1873 Grangell, Pascual, Alcora, Province of Castellon de la Plana.—Olive oil. 662

1874 García y Moreno, Julian, Altura, Province of Castellon de la Plana.—Virgin olive oil. 662

1875 Escribano, José, Vinaróz, Province of Castellon de la Plana.—Olive oil. 662

1876 Arnau & Tomás, Segorbe, Province of Castellon de la Plana.—Olive oil. 662

1877 Ricart, Juan Martinez, Segorbe, Province of Castellon de la Plana.—Oil. 662

1878 Aguila y Aguila, Santiago del, Villarubia de los Ojos, Province of Cindad-Real.—Olive oil. 662

1879 Medrano, José, Ciudad-Real.—Olive oil. 662

1880 Milla, Manuel, Montoro, Province of Córdoba.—Olive oil. 662

1881 Infante, Juan de Dios, Villaviciosa, Province of Córdoba.—Olive oil. 662

1882 Cantual y Lopez, Josè, Córdoba.—Olive oil. 662

1883 Estrada, Eduardo, Aguilar, Province of Córdoba.—Olive oil. 662

1884 Santaló, Estéban, Córdoba.—Olive oil. 662

1885 San Bernardo, Count of, Córdoba.—Olive oil. 662

1886 Alvarez, Rafael Ceballos, Adamion, Province of Córdoba.—Olive oil. 662

1887 Alguacil, Miguel Pineda, Espejo, Province of Córdoba.—Olive oil. 662

1888 Lopez, Espejo, Province of Córdoba.—Olive oil. 662

1889 Casado, Francisco, Espejo, Province of Córdoba.—Olive oil. 662

1890 Vega y Lopez, Luis, Espejo, Province of Córdoba.—Olive oil. 662

1891 Pineda, José Ramirez, Espejo, Province of Córdoba.—Olive oil. 662

1892 Medinaceli, Duchess, Widow of, Espejo, Province of Córdoba.—Olive oil. 662

1893 Fuente el Salce, Count of, Montoro, Province of Córdoba.—Olive oil. 662

1894 Rodriguez, José, Montemayor, Province of Córdoba.—Olive oil. 662

1895 Moreno, Sebastian, Montemayor, Province of Córdoba.—Olive oil. 662

1896 Uruburu, José, Montemayor, Province of Córdoba.—Olive oil. 662

1897 Moreno, José Maria, Montemayor, Province of Córdoba.—Olive oil. 662

1898 Corporation of Bujalance, Province of Córdoba.—Olive oil. 662

1899 Prieto, Sebastian, Encinas-Reales, Province of Córdoba.—Olive oil. 662

1900 Pavon, Pablo, Baena, Province of Córdoba.—Olive oil. 662

1901 Bastida, Martin, Montoro, Province of Córdoba.—Olive oil. 662

1902 Cabezas y Sarabia, José, Montoro, Province of Córdoba.—Olive oil. 662

1903 Piédrola, Rafael, Montoro.—Province of Córdoba.—Olive oil. 662

1904 Lara y Pineda, Rafael J. de, Montoro, Province of Córdoba.—Olive oil. 662

1905 Saenz, Eusebio, Lucena, Province of Córdoba.—Olive oil. 662

1906 Carmona, Joaquina, Lucena, Province of Córdoba.—Olive oil. 662

1907 Algár, Francisco, Lucena, Province of Córdoba.—Olive oil. 662

1908 Valdecañas, Count of, Lucena, Province of Córdoba.—Olive oil. 662

1909 Medinaceli, Duke of, Lucena, Province of Córdoba.—Olive oil. 662

1910 Gomez, Antonio Enrique, Montoro, Province of Córdoba.—Olive oil. 662

1911 Escribano, Luis, Pozoblanco, Province of Córdoba.—Olive oil. 662

1912 Galan, Alfonso Blanco, Dos-Torres, Province of Córdoba.—Olive oil. 662

1913 Castillejo, Pedro, Fuente-Ovejuna, Province of Córdoba.—Olive oil. 662

1914 Cabello, José Garcia, Santa-Ella, Province of Córdoba.—Olive oil. 662

1915 Criado, Dolores, Villa del Rio, Province of Córdoba.—Olive oil. 662

1916 Zamora, Pedro Alcalá, Priego, Province of Córdoba.—Olive oil. 662

1917 Valverde, Francisco Aguilera, Priego, Province of Córdoba.—Olive oil. 662

1918 Castilla, José Eugenio, Priego, Province of Córdoba.—Olive oil. 662

1919 Roldan, Manuel, Montoro, Province of Córdoba.—Olive oil. 662

1920 Cano, Rafael, Adamúz, Province of Córdoba.—Olive oil. 662

1921 Cano, Juan, Adamúz, Province of Córdoba.—Olive oil. 662

1922 Estrado y Perjano, Ramon, Adamúz, Province of Córdoba.—Olive oil. 662

1923 Lara, Antonio Crespo, Benameji, Province of Córdoba.—Olive oil. 662

1924 Rio, Pedro del, Castro del Rio, Province of Córdoba.—Olive oil. 662

1925 Sepúlveda, V. Muñoz de, Córdoba.—Olive oil. 662

1926 Campo, Francisco Escobar, Rubielos Bajos, Province of Cuenca.—Olive oil. 662

1927 Cid, Julian, Tarancon, Province of Cuenca.—Olive oil. 662

1928 Torres, Mariano L., Barchin del Hoyo, Province of Cuenca.—Olive oil. 662

1929 Baillo, José Maria, Barchin del Hoyo, Province of Cuenca.—Olive oil. 662

1930 Reyes y Rich, Juan A., Guadalajara.—Olive oil. 662

1931 Molina, Federico, Rociana, Province of Huelva.—Olive oil. 662

1932 Soldán, Antonio, La Palma, Province of Huelva.—Olive oil. 662

1933 Carrasco, José Maria, Bonares, Province of Huelva—Olive oil. 662

1934 Zambrano, José A., Villalba del Alcor, Province of Huelva.—Olive oil. 662

1935 Iñiguez, José, Gibraleon, Province of Huelva—Olive oil. 662

1936 Iñiguez, Encarnacion, Gibraleon, Province of Huelva.—Olive oil. 662

1937 Morales, Teresa, San Juan del Puerto, Province of Huelva.—Olive oil. 662

1938 Santa, Martin Maria, San Juan del Puerto, Province of Huelva.—Olive oil. 662

1939 Marquez, Rufino J., Manzanilla, Province of Huelva.—Olive oil. 662

1940 Velarde, José Eduardo, Manzanillas, Province of Huelva.—Olive oil. 662

1941 Cerero, Luis, Trigueros, Province of Huelva.—Olive oil. 662

1942 Montiel, Eliecer, Trigueros, Province of Huelva.—Virgin olive oil. 662

1943 Ortá, Manuel de, Trigueros, Province of Huelva.—Olive oil. 662

1944 Rodriguez, José Rodriguez, Trigueros, Province of Huelva.—Olive oil. 662

1945 Escolar, Angel, Almonte, Province of Huelva.—Olive oil. 662

1946 Cepeda, Ignacio de, Almonte, Province of Huelva.—Olive oil. 662

1947 Lagares, Francisco, Almonte, Province of Huelva.—Olive oil. 662

1948 Pineda, Nicanor Infante, Aracena, Province of Huelva.—Olive oil. 662

1949 Oliva, Juan Martin de, Aracena, Province of Huelva.—Olive oil. 662

1950 Carnes, Eulogio Martin, Aracena, Province of Huelva.—Olive oil. 662

1951 Ramirez, Ignacio Nagales, Aracena, Province of Huelva. 662

1952 Barrera, Joaquin Moya, Aracena, Province of Huelva.—Olive oil. 662

1953 Cruz, Rivero, Rafael Trianes de la, Huelva.—Olive oil. 662

1954 Las Cuebas, Fernando de, Huelva, —Olive oil. 662

1955 Mora, Antonio de, Huelva.—Olive oil. 662

1956 Figueroa, Eduardo, Huelva.—Olive oil. 662

1957 Arnal, Dionisio, Castelflorite, Province of Huesca.—Olive oil. 662

1958 Nasarre, Voto, Albalate de Cinca, Province of Huesca.—Olive oil. 662

1959 Laguna, Celeste, Sariñena, Province of Huesca.—Olive oil. 662

1960 Lapiedra Joaquin, Sariñena, Province of Huesca.—Olive oil. 662

1961 Las Almenas, Count of, Espeluy, Province of Jaen.—Olive oil. 662

1962 Campos, Antonio Lopez, Ubeda, Province of Jaen.—Olive oil. 662

1963 Ibañez, Luis Gallego, Cazorla, Province of Jaen.—Olive oil. 662

1964 Acapulco, Marquis of, Torre Don Jimeno, Province of Jaen.—Olive oil. 662

1965 Villalva, Antonio Fernandez, Torre Don Jimeno, Province of Jaen.—Olive oil. 662

1966 Manjon, Juan A., Izuatoraf, Province of Jaen.—Olive oil. 662

1967 Salcedo y Gamez, Miguel, Jimena, Province of Jaen.—Olive oil. 662

1968 Torres, Manuel Alfonso, Jimena, Province of Jaen.—Olive oil. 662

1969 Oliveres, Mauricio, Torreserona, Province of Lérida.—Olive oil. 662

1970 Terèz, Ignacio, Tàrrega, Province of Lérida.—Olive oil. 662

1971 Corporation of Agramunt, Province of Lérida.—Olive oil. 662

1972 Corporation of Puigvert, Province of Lérida.—Olive oil. 662

1973 Corporation of Las Borjas, Province of Lérida.—Olive oil. 662

1974 Corporation of Vinaixa, Province of Lérida.—Olive oil. 662

1975 Alos, Francisco, Balaguer, Province of Lérida.—Olive oil. 662

1976 Pinós, José Maria, Lèrida.—Olive oil. 662

1977 Lafont, Andrès, Borjas, Province of Lérida.—Oil. 662

1978 Lopez, Manuel, Puigvert, Province of Lérida.—Oil. 662

1979 Ball, José, Agramunt, Province of Lérida.—Olive oil. 662

1980 Ron, Ramon, Vinaixa, Province of Lérida.—Oil. 662

1981 Zubia, Ildefonso, Logroño.—Olive oil. 662

1982 Lazan, Marquis of, Cuzcurrita de Rio Tiron, Province of Logroño.—Olive oil. 662

1983 Alcalde, Javier, Logroño.—Olive oil. 662

1984 Pascual, Elias, Alfarnate, Province of Málaga.—Olive oil. 662

1985 Corporation of Teba, Province of Málaga.—Olive oil. 662

1986 Garcia, Dolores, Widow of Estor, Múrcia.—Olive oil. 662

1987 Lopez, José Maria, Caravaca, Province of Múrcia.—Oil. 662

1988 Coracèr Agustin Mascareñas, Verin, Province of Orense.—Olive oil. 662

1989 Velasco, Manuel, Verin, Province of Orense.—Oil. 662

1990 Ullan, Romualdo, Masueco, Province of Salamanca.—Olive oil. 662

1991 Martin, Lorenzo Calvo, Mogarraz, Province of Salamanca.—Olive oil. 662

1992 Garcia, José Sanchez, Fregeneda, Province of Salamanca.—Olive oil. 662

1993 La Viesca, Marquis of, Fregeneda, Province of Salamanca.—Olive oil. 662

1994 Bullon, Agustin, Miranda del Castañar, Province of Salamanca.—Olive oil. 662

1995 Corbalan, Juan, Sancelle, Province of Salamanca.—Olive oil. 662

Animal and Vegetable Products.

1996 Villaranea, Ramon Miguel, Hinojosa de Duero, Province of Salamanca.—Olive oil. 662

1997 Ortál, Ignacio, Fregeneda, Province of Salamanca.—Olive oil. 662

1998 Villaranda, Joaquin Romo, Hinojosa de Duero, Province of Salamanca.—Olive oil. 662

1999 Gascon, Andrés Sanchez, Cepeda, Province of Salamanca.—Olive oil. 662

2000 Paulino, Diego Perez, Fregeneda, Province of Salamanca.—Olive oil. 662

2001 Herrero, Julian, Lumbrales, Province of Salamanca.—Olive oil. 662

2002 Paulino, Cipriano Perez, Fregeneda, Province of Salamanca.—Olive oil. 662

2003 Mendoza, Ignacio Halcon, Lebrija, Province of Sevilla.—Olive oil. 662

2004 Cisneros, Honorio de, Constantina, Province of Sevilla.—Olive oil. 662

2005 Morejon, Manuel Solis, Cantillana, Province of Sevilla.—Olive oil. 662

2006 Arenas, Antonio Rivas, Cantillana, Province of Sevilla.—Olive oil. 662

2007 Teruel, Pedro, & Bros., Cantillana, Province of Sevilla.—Olive oil. 662

2008 Reina, Cláudio Gimenez de, Arahal, Province of Sevilla.—Olive oil. 662

2009 Quintanilla, Antonio Torres, Arahal, Province of Sevilla.—Olive oil. 662

2010 Zallas y Trigueros, Miguel, Sevilla.—Olive oil. 662

2011 Piñar, Enrique, & Bros., Arahal, Province of Sevilla.—Olive oil. 662

2012 Benjumea y Jiló, Eduardo, Arahal, Province of Sevilla.—Olive oil. 662

2013 Andrade, Manuel Zayas, Arahal, Province of Sevilla.—Olive oil. 662

2014 Puig, Juan, Sevilla.—Olive oil. 662

2015 Garcia, Pedro Leanis, Sevilla.—Olive oil. 662

2016 Leygonier, Cayetano, Sevilla.—Olive oil. 662

2017 Puerta Zayas, Aniceto de la, Sevilla.—Olive oil. 662

2018 Serrano, Miguel Perez, Olivares, Province of Sevilla.—Olive oil. 662

2019 Masa, Juan Gomez de la, Olivares, Province of Sevilla.—Olive oil. 662

2020 Daoiz, Count of, Moron, Province of Sevilla.—Olive oil. 662

2021 Daoiz, José, Moron, Province of Sevilla.—Olive oil. 662

2022 Angulo, José, Moron, Province of Sevilla.—Olive oil. 662

2023 Mendez, Felipe, Mairena del Alcor, Province of Sevilla.—Olive oil. 662

2024 La Hasta, Lorenzo Dominguez de, Carmona, Province of Sevilla.—Olive oil. 662

2025 Velasco, Ramon, Carmona, Province of Sevilla.—Olive oil. 662

2026 Reina, José Martinez de, Dos-Hermanas, Province of Sevilla.—Olive oil. 662

2027 Ibarra, J. M., & Sons, Dos-Hermanas, Province of Sevilla.—Olive oil. 662

2023 Sanchez, José Arcos, Coronil, Province of Sevilla.—Olive oil. 662

2029 Rosa y Silva, José de la, Villamanrique, Province of Sevilla.—Olive oil. 662

2030 La Motilla, Marquis of, Pilas, Province of Sevilla.—Olive oil. 662

2031 Martinez, Joaquin, Bros., Utrera, Province of Sevilla.—Olive oil and pressed olives. 662

2032 Martinez, Casimiro Carro, Utrera, Province of Sevilla.—Olive oil and pressed olives. 662

2033 Orejuela, Francisco de, Utrera, Province of Sevilla.—Olive oil and pressed olives. 662

2034 Dominguez, Pedro, Utrera, Province of Sevilla.—Olive oil and pressed olives. 662

2035 Bascon, Antonio, Utrera, Province of Sevilla.—Olive oil and pressed olives. 662

2036 Peña, José Gonzalez de la, Utrera, Province of Sevilla.—Olive oil and pressed olives. 662

2037 Cuadra, Enrique de la, Utrera, Province of Sevilla.—Olive oil and pressed olives. 662

2038 Calero, Juan, Utrera, Province of Sevilla.—Olive oil and pressed olives. 662

2039 Giraldez, Vicente, Utrera, Province of Sevilla.—Olive oil and pressed olives. 662

2040 Riarola, Rafael, Utrera, Province of Sevilla.—Olive oil and pressed olives. 662

2041 Franquet y Dara, José, Gandesa, Province of Tarragona.—Olive oil. 662

2042 Grau, José Maria de, Mas-Pujols, Province of Tarragona.—Olive oil. 662

2043 Sanz y Salvá, Francisco, Mas-Pujols, Province of Tarragona.—Olive oil. 662

2044 Llausádo y Pamies, José, Mas-Pujols, Province of Tarragona.—Olive oil. 662

2045 Pamies y Ortoneda, Juan, Mas-Pujols, Province of Tarragona.—Olive oil. 662

2046 Orovio, Manuel de, Riudoms, Province of Tarragona.—Olive oil. 662

2047 Salvadó, Salvador, Riudoms, Province of Tarragona.—Olive oil. 662

2048 Salvadó, Mateo, Riudoms, Province of Tarragona.—Olive oil. 662

2049 Miret, Juan, Constanti, Province of Tarragona.—Olive oil. 662

2050 Domingo, Tomás, Constanti, Province of Tarragona.—Olive oil. 662

2051 Montoliú, Plácido Maria de, Morell, Province of Tarragona.—Olive oil. 662

2052 Consul & Virgili, Tarragona.—Olive oil. 662

2053 Magriña y Suñer, Antonio, Gandesa, Province of Tarragona.—Olive oil. 662

2054 March, Juan de, Vilaseca, Province of Tarragona.—Olive oil. 662

2055 Corporation of Amposta, Province of Tarragona.—Olive oil. 662

2056 Bufill, B., Reus, Province of Tarragona.—Olive oil. 662

2057 Montagut, José, Illa, Province of Tarragona.—Olive oil. 662

2058 Pellicèr, José, Reus, Province of Tarragona.—Olive oil. 662

2059 Fumaña Bros., Reus, Province of Tarragona.—Olive oil. 662

2060 Odena y Pujol, José, Reus, Province of Tarragona.—Olive oil. 662

2061 Avello, A., & Son, Reus, Province of Tarragona.—Olive oil. 662

2062 Gasull, Bartolomé, Reus, Province of Tarragona.—Olive oil. 662

2063 Gil, Francisco, Reus, Province of Tarragona.—Olive oil. 662

2064 Morlius, José Maria, Reus, Province of Tarragona.—Olive oil. 662

2065 Rincon, José Montaner, Reus, Province of Tarragona.—Olive oil. 662

2066 Sirvent y Oliver, Pedro, Reus, Province of Tarragona.—Olive oil. 662

2067 Carol, Antonio, & Co., Reus, Province of Tarragona.—Olive oil. 662

2068 Esteve, D. A., Widow & Son of, Reus, Province of Tarragona.—Olive oil. 662

2069 Basseda y Andreu, Miguel, Reus, Province of Tarragona.—Olive oil. 662

2070 Zamora, Francisco, Reus, Province of Tarragona.—Olive oil. 662

2071 Peña y Mach, Agustin, Scala-Dei, Province of Tarragona.—Olive oil. 662

2072 Garcia, Sebastian, Scala-Dei, Province of Tarragona.—Olive oil. 662

2073 Robles, Sebastian Garcia de, Scala-Dei, Province of Tarragona.—Olive oil. 662

2074 Gatell y Folchs, Juan, Altafulla, Province of Tarragona.—Oil. 662

2075 Siscar, Ramon, La Canonja, Province of Tarragona.—Oil. 662

2076 Indo, Valentin Martinez, Argis, Province of Toledo.—Olive oil. 662

2077 Redondo, Juan Bautista, Carmena, Province of Toledo.—Oils. 662

2078 Basaran, Isidoro, Olias del Rey, Province of Toledo.—Olive oil. 662

2079 Moreno, Manuel, Ortiz, Ocaña, Province of Toledo.—Olive oil. 662

2080 Diego, Francisco Polop, Játiva, Province of Valencia.—Olive oil. 662

2081 Diego y Carsi, Ignacio & José, Játiva, Province of Valencia.—Oil. 662

2082 Calabuyg, Bartolomé, Bocayrente, Province of Valencia.—Olive oil. 662

2083 Lasalla y Palomares, Vicente, Masia de la Mar, Province of Valencia.—Olive oil. 662

2084 Cañamas, Blas Antonio, Olisa, Province of Valencia.—Olive oil. 662

2085 Albors y Albors, Càrlos, Picasent, Province of Valencia.—Olive oil. 662

2086 Valdobi, Rafael Gonzalez, Torrente, Province of Valencia.—Olive oil. 662

2087 Reig y García, Fernando, Puebla de Valbona, Province of Valencia.—Olive oil. 662

2088 Olias, Vicente, Chiva, Province of Valencia.—Olive oil. 662

2089 Bremont, Manuel Sanz, Bemfayo de Espioca, Province of Valencia.—Olive oil. 662

2090 Latorre, Federico, Turis, Province of Valencia.—Olive oil. 662

2091 Carceller, Saturnino, Valencia.—Peanut oil. 662

2092 Caruana & Bros., Betera, Province of Valencia.—Olive oil. 662

2093 Flores, P. Manuel Serrano, Fermoselle, Province of Zamora.—Olive oil. 662

2094 Val, Miguel Hipólito del, Gallur, Province of Zaragoza.—Olive oil. 662

2095 La Linde, Baron of, Zaragoza.—Olive oil. 662

2096 Bureta, Countess of, Alagon, Province of Zaragoza.—Olive oil. 662

2097 Vallier, José, Zaragoza.—Olive oil. 662

2098 Baerla, Mariano Perez, Zaragoza.—Olive oil. 662

2099 Lopez y Pastor, Luis, Velilla de Ebro.—Olive oil. 662

2100 Mendoza, Francisco Estèban, Zaragoza.—Olive oil. 662

2101 Arpal, Manuel Vicente, Caspe, Province of Zaragoza.—Olive oil. 662

Textile Substances of Vegetable or Animal Origin.

2102 Morand, Pedro, Hellin, Province of Albacete.—Esparto grass. 666

2103 Bañon, Francisco Prast, Hellin, Province of Albacete.—Esparto grass. 666

2104 Lopez, Benito, Hellin, Province of Albacete.—Esparto grass. 666

2105 Guevara, Vicente Ladron de, Tobarra, Province of Albacete.—Hemp. 666

2106 Alvarez, Francisco Rodriguez, Province of Albacete.—Esparto grass. 666

2107 Leon, Romualdo, Albacete.—Esparto grass. 666

2108 Amores, Julian, Elche de la Sierra, Province of Albacete.—Hemp. 666

2109 Parras, Enrique, Lietor, Province of Albacete.—Esparto grass. 666

2110 Bushnell, Enrique, Hellin, Province of Albacete.—Esparto grass. 666

2111 Lopez, José Beltran, Elche, Province of Albacete.—Hemp ropes. 666

2112 Campoamor, Ramon de, Alicante—Esparto grass. 666

2113 Brotons Bros., Orihuela, Province of Alicante.—Hemp. 666

2114 Lledo y Gomis, Vicente, Campello, Province of Alicante.—Twisted Esparto grass. 666

2115 Sandoval, José Joaquin, Jacarilla, Province of Alicante.—Hemp. 666

2116 Alhorque & Barkes, Alicante.—Esparto grass. 666

2117 Beltran y Lopez, José, Elche, Province of Alicante.—Hemp. 666

2118 Spencer & Roda, Enis, Province of Almeria.—Esparto grass. 666

2119 Linares, Clemente, Albanchez, Province of Almeria.—Hemp. 666

2120 Daza y Ruiz, Francisco, Purchena, Province of Almeria.—Flax and hemp. 666

2121 Trell, Miguel del, Berja, Province of Almeria.—Esparto grass. 666

2122 Calvache, Diego, Carboneras, Province of Almeria.—Palmetto leaves. 666

2123 Forestal District, Enis, Province of Almeria.—Esparto grass. 666

2124 Molina, Manuel Martinez, Oria, Province of Almeria.—Tow. 666

2125 Gonzalez, Manuel, Barco de Avila, Province of Almeria.—Flax. 666

2126 Garriga, Luis, Barcelona.—Rigging and cordage. 666

2127 Marquez, Cavalit & Co., Hospitalet, Province of Barcelona.—Hemp thread. 666

2128 Provincial Commission, Province of Búrgos.—Hemp and flax. 666

2129 Corporation of Briviesca, Province of Búrgos.—Flax. 666

2130 La Cruz, Valentin de, Carrascalejo, Province of Cáceres.—Flax. 666

2131 Muñoz, José Diaz, Puerto de Santa Cruz, Province of Cáceres.—Flax. 666

2132 Sande, Olivares, Jeroñimo de, Garrovillas de Alconetar.—Cyperus. 666

2133 Riscal de Alegre, Marquis of, Alia, Province of Cáceres.—Nettle. 666

2134 Dabner, Guillermo H., La Laguna, Canary Islands.—Agave. 666

2135 Society of Friends of the Country, Las Palmas, Canary Islands.—Agave and ropes of agave. 666

2136 Provincial Board of Agriculture, Castellon.—Cordage of hemp, flax, and esparto grass. 666

2137 Safon, Antonio, Castellon.—Vegetable hair. 666

2138 Armengod, Joaquin, Castellon.—Hempen ropes. 666

2139 Aguila y Aguila, Santiago del, Villarrubia, Province of Ciudad-Real.—Hemp. 666

2140 Melgarejo, Maria Josefa, San Clemente, Province of Cuenca.—Esparto grass. 666

2141 Ribot, Esteban, & Bros., Granada.—Hemp, tow, and ropes. 666

2142 Salcedo, Antonio Puche, Guadix, Province of Granada.—Esparto grass. 666

2143 Corporation of Almonacid de Zorita, Province of Guadalajara.—Hemp. 666

2144 Castillo y Mesquita, Francisco del, Huelva.—Palmetto leaves, rush mats, ropes, and vegetable hair. 666

2145 Oliver, D., Huesca.—Esparto grass. 666

2146 Otal, José Maria, Huesca.—Esparto grass. 666

2147 Arnal, Dionisio, Castelflorite, Province of Huesca.—White esparto grass. 666

2148 Berrio y Torrero, Vicente, Beas de Segura, Province of Jaen.—Hemp and flax. 666

2149 Corporation of Huesco, Province of Jaen.—Esparto grass. 666

2150 Corporation of Cabra del Santo Cristo, Province of Jaen.—Esparto grass. 666

2151 Corporation of Congosto, Province of Leon.—Flax. 666

2152 Corporation of Vega de Infanzones, Province of Leon.—Flax. 666

2153 Corporation of Omaña, Province of Leon.—Flax. 666

2154 Corporation of Armunia, Province of Leon.—Flax. 666

2155 Corporation of Villaturiel, Province of Leon.—Flax. 666

2156 Corporation of Páramo del Sil, Province of Leon.—Flax. 666

2157 Corporation of Encinedo, Province of Leon.—Flax. 666

2158 Dorado, Manuel, Láncara, Province of Lugo.—Flax. 666

2159 Paseiro, Bonifacia, Castroverde, Province of Lugo.—Flax. 666

2160 Corps of Engineers of Woods and Forests, Madrid.—Esparto grass. 666

2161 Diaz, Antonio, Málaga.—Objects made of hemp. 666

2162 Romero, Rafael Escalante, Teba, Province of Málaga.—Esparto ropes. 666

2163 Economical Society of Múrcia.—Agave. 666

2164 Pulgar, Joaquin Perez del, Caravaca, Province of Múrcia.—Esparto grass. 666

2165 Gonzalez, Tomás Dacal, Frires, Province of Orense.—Flax. 666

2166 Rodriguez, Manuel Iglesias, Celanova, Province of Orense.—Flax. 666

2167 Romero y Romero, José, Guinzo de Limia, Province of Orense.—Flax. 666

2168 Calvo, Lorenzo, Salamanca.—Flax. 666

2169 Casado y Febrero, Francisco, Sevilla.—Hempen ropes. 666

2170 Igualada, Francisco, Sevilla.—Cordage and sandals of hemp. 666

2171 Monner, Juan, La Riera, Province of Tarragona.—Hemp. 666

2172 Batllé y Marca, Pedro, Province of Tarragona.—Ropes. 666

2173 Valencian Society of Agriculture, Valencia.—Esparto grass, hemp, nettle, and agave. 666

2174 Philadelphia Commission of Valencia.—Objects made of hemp. 666

2175 Villalva, Benigno, Corrales de Duero, Province of Valladolid.—Hemp. 666

2176 Borbujo, Juan, Benavente, Province of Zamora.—Flax. 666

2177 Marron, José Victor, Alcañices, Province of Zamora.—Flax. 666

2178 La Viñaza, Count of, Epila, Province of Zaragoza.—Flax and hemp. 666

2179 Loring Bros., Málaga.—Esparto grass. 666

2179*a* Corps of Engineers of Woods and Forests, Madrid.—Esparto grass. 666

2180 Robles, Vicente, Badajoz.—Pelt. 667

2181 Moreno, Cayetano, Villalba de los Barros, Province of Badajoz.—Merino wool. 667

2182 Arenzana, Son of, & Co., Badajoz. —Merino wool. 667

2183 Carrasco, Alfonso, Guareña, Province of Badajoz.—Merino wool. 667

2184 Espinosa, Fernando Montero de, Badajoz.—Merino wool. 667

2185 Patiño, José Maria, Cabeza de Vaca, Province of Badajoz.—Merino wool. 667

2186 Provincial Commission, Burjos.—Coarse and fine wool. 667

2187 Hernaiz, Francisco, Huerta de Abajo, Province of Búrgos.—Merino wool. 667

2188 Agero, José Diaz, Moraleja, Province of Cáceres.—Wool. 667

2189 Santa Marta, Marquis of, Cáceres. —Wool. 667

2190 Montoya, Vicente Llopis, Bojas, Province of Castellon.—Wool. 667

2191 Guimera, Giner, Morella, Province of Castellon.—Wool. 667

2192 Provincial Board of Agriculture, Morella, Province of Castellon.—Wool. 667

2193 Valdeavellano, J. Garcia, Espiel, Province of Córdoba.—Wool. 667

2194 Conde, Juan M., Córdoba.—Wool. 667

2195 Lozano, Juan Antonio, Belmez, Province of Córdoba.—Wool. 667

2196 Cortès y Velarde, Enrique, Fuente Ovejuna, Province of Córdoba.—Wool. 667

2197 Torrico, Manuel, Hinojosa, Province of Córdoba.—Wool. 667

2198 Yaniz, Ambrosio, Cuenca.—Wool. 667

2199 Hernandez, Pedro, Moguer, Province of Huelva.—Wool. 667

2200 Soldan, Antonio, La Palma, Province of Huelva.—Wool. 667

2201 Otal, José Maria, Almudevar, Province of Huelva.—Wool. 667

2202 Gimenez, Francisco, Jaen.—Wool. 667

2203 Freires, Manuel Soto, Panton, Province of Lugo.—Wool. 667

2204 Cruz Gomez, Juan de la, Caravaca, Province of Múrcia.—Shoddy. 667

2205 Garcia y Garcia, Manuel, Salamanca.—Wool. 667

2206 Garcia, Mariano, Salvatierra de Tórmes, Province of Salamanca.—Wool. 667

2207 Diaz, Cándido, Villaflores, Province of Salamanca.—Wool. 667

2208 Torroja, Ricardo, Zaratan, Province of Salamanca.—Wool. 667

2209 Cabrera, Victoriano, Cantalapiedra, Province of Salamanca.—Wool. 667

2210 Onis, Federico de, Cantalapiedra, Province of Salamanca.—Wool. 667

2211 Lozoya, Marquis of, Segovia.—Wool. 667

2212 Tomé, Gabino, Segovia.—Wool. 667

2213 Quintanilla, Antonio, Carmona, Province of Sevilla.—Wool. 667

2214 Rosa, José de la, Villamanrique, Province of Sevilla.—Wool. 667

2215 Zayas y Trigueros, Miguel, Arahal, Province of Sevilla.—Wool. 667

2216 Vasquez, Juan, Sevilla.—Wool. 667

2217 Cuadra, Enrique de la, Utrera, Province of Sevilla.—Wool. 667

2218 Gonzalez, Ramon, Quintana Redonda, Province of Soria.—Wool. 667

2219 Delgado, Manuel, Tejarejo, Province of Soria.—Wool. 667

2220 Romero, Angel, Soria.—Wool. 667

2221 Perez, Lino, Toledo.—Wool. 667

2222 Corporation of Medina del Campo, Province of Valladolid.—Wool. 667

2223 Salarich, Joaquin, Vich, Province of Barcelona.—Silk in the cocoon and reeled. 668

2224 Riscal de Alegre, Marquis of, Alia, Province of Cáceres.—Cocoons. 668

2225 La Viesca, Marquis of, Fregeneda, Province of Salamanca.—Spun silk. 668

2226 Paulino, Cipriano Perez, Fregeneda, Province of Salamanca.—Spun silk. 668

2227 Villalta y Uribe, Antonio, Jaen.—Cocoons. 668

2228 Gonzalez, Pedro, Eutaimo, Province of Orense.—Cocoons. 668

Machines, Implements, and Processes of Manufacture.

2229 Albornoz, Juan Gil., Avila.—Plows. 670

2230 Cruz, Rafael Trianes de la, Huelva.—Models of harrows. 670

2231 Corps of Engineers of Woods and Forests, Madrid.—Manual implements. 670

2232 Philadelphia Commission of Valencia.—Agricultural instruments. 670

2233 Perez, Felipe, Habana, Cuba.—Cultivator. 670

2234 Serrano, Juan, Castellon.—Implements for tillage. 670

Agricultural Engineering and Administration.

2235 Barnosell, Pedro, Vallecas, Province of Madrid.—Guano. 681

2236 Provincial Deputation, Múrcia.—Barrilla for fertilizing. 681

2237 Muñoz, Bruno, Peñaranda, Province of Salamanca.—Girth. 682

2238 Provincial Commission of Valencia.—Harness appendages. 682

2239 Villar, Francisco Maria del Barcelona.—Projects of rural constructions. 683

2240 Garriga, Francisco Domingo, San Quirse de Besora, Province of Barcelona.—Model of feeding-trough. 683

2241 Cruz, Rivero, Rafael Trianes de la, Huelva.—Plan of country house. 683

Tillage and General Management.

2242 Garriga, Francisco Domingo, San Quirse de Besora, Province of Barcelona.—Systems of rotation and calculations for agricultural products. 690

2243 Corps of Engineers of Woods and Forests, Madrid.—Plan of the special school, and technical designs made by the pupils; books on forestry, and models of implements used for the proper cultivation of forests. 690

PORTUGAL.

(*South of South Avenue, Columns 13 to 17.*)

Arboriculture and Forest Products.

Arboriculture and Forest Products.

1 Menezes, Jose de Vasconcellos Carneiro, Marco de Canavezes, Oporto.—Woods, corkwood. 600

2 Archer, Jacintho F., Setubal, Lisbon.—Corks and corkwood. 600

2*a* Almeida, Jacintho Pacheco, Ponta Delgada.—Samples of wood. 600

3 Almeida, Antonio Joaquim de, Villa Nova de Ourem, Santarem.—Timber. 600

3*a* Bettencourt, Francisco, Ponta Delgada.—Samples of wood. 600

4 Administrative Council of Castro Daire, Castro Daire, Viseu.—Timber. 600

5 Administrative Council of Penacova, Penacova, Coimbra.—Corkwood. 600

6 Admstrative Council of Penalva, Penalva, Viseu.—Timber. 600

6*a* Salles, Jose Joaquim Pereira, Mirandella, Braganca.—Corkwood. 600

7 Albergaria, Thomas Antonio Pinto Soases, Villa Cha Averi.— Corkwood and oak bark. 600

8 Administrative Council of Vourella, Vourella, Viseu.—Timber. 600

9 Gago, Joao Henriques Nunes, Galveas, Portalegre.— Corkwood. 600

10 Goulao, Joao Pereira Pestana Pina, Niza, Portalegre.—Corkwood. 600

11 Vaz Preto, Geraldes, Manuel Louza, Castello Branco.—Corkwood. 600

12 Joaquim Guilherme de Vascomellos & Sons, Elvas, Portalegre.—Corkwood. 600

13 Herdeiros de Roberto & Hunter Reynolds, Estremoz, Evora.—Corks. 600

14 Almeida, Francisco Aleas, Miranda do Douro, Braganca.—Corkwood. 600

15 Rebocha, Francisco Freire, Constanca, Santarem.—Timber. 600

16 Ventura, Jose Goncalves da Costa, Quinta do Mosteiro, Oporto.—Corkwood. 600

17 Agricultural Society of Oporto, Oporto.—Woods. 600

19 Fernandes, Joaquim, Mogao, Santarem.—Cork. 600

19*a* Castro, Joao Vaz, Pacheco, Ponta Delgada.—Samples of wood. 600

20 Queiroz, Jose de Sequeira Pinto, S. Sebastiao do Duque, Vianna do Castello.
a Corkwood and barks. 600
b Walnuts and chestnuts. 605

21 Ramalho, Jose Maria, Evora.—Corkwood and corks. 600

22 Frausto, Antonio Joaquim, Montalvao, Portalegre.—Corkwood. 600

22*a* Rocha, Francisco Coelhovda, Feira.—Corks. 600

23 Faria, Manuel Simplicio, Niza, Port Legre.—Corkwood. 600

24 Falcao, Joao Carlos da Costa, Fundao.—Chestnut staves, and rods for making hoops. 600

26 Guerra, Jose Manuel, Miranda do Douro, Braganca.—Corkwood. 600

27 Murta, Ramiro Cesar, Castello de Vide.—Corkwood. 600

28 Mesquita, Pedro Jose de, Sinde, Coimbra.—Corkwood. 600

29 Ororio, Manuel de Arevedo Ferraz, Monforte, Castello Branco.—Corkwood. 600

30 Murteira, Joaquim Antonio, Campo Maior, Portalegre.—Timber. 600

31 Maria, Angelica, Montargil, Portalegre.—Corkwood. 600

32 Netto, Joao Mascarenhas, Silves, Faro.—Corks and corkwood. 600

33 Nunes & Co., Grandola, Lisbon.—Corks and corkwood. 600

34 Ratto, Antonio Gonsalves, Barquinha, Santarem.—Corkwood. 600

35 Souza, Joze Saldanha Oliveira e, Lisbon.—Corkwood. 600

36 Salgado, Julio Bivar d'Azevedo, Sardoal, Santarem.—Corkwood. 600

37 Souza, Pedro Augusto Pereira Abreu e, Santa Marinha, Villa Real.—Corkwood. 600

38 Lagrifa, Juan, Grandola, Lisbon.—Corks. 600

39 Lacerda, Jose de Aragao Costa, Aldea Nova do Cabo, Castello Branco.—Chestnut rods, staves. 600

40 Orb, J. Augusto de, Portalegre.—Corkwood. 600

41 Marcal, Joao Lopes, Evora.—Corkwood. 600

42 Peres, Roure, & Co., S. Thrago de Cacem, Lisbon.—Corkwood. 600

43 Margiochi, jr., Francisco Simoes, Lisbon.—Corkwood. 600

44 Ribeiro, J. Lopes, Anciaes, Braganca.—Corkwood. 600

45 Ribeiro, Serafim Garcia, Oliveira do Hospital.—Corkwood. 600

46 Rodrigues, Manuel Antonio, Ferradosa, Braganca.—Corkwood. 600

47 Moraes, Antonio, S. Thiago, Lisbon.—Corks and corkwood. 600

48 Mendonca, Manuel F. de, Lisbon.—Corkwood. 600

49 Rankin, William, & Sons, Almada, Lisbon.—Corkwood. 600

50 Ventura, Jose Goncalves da Costa, Quinta do Mosteiro, Oporto.—Corkwood. 600

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12-14.

Arboriculture and Forest Products, Pomology.

51 Valente, Jose Justiniano d'Oliveira, Aveiro.—Pine kernels. 600

52 Vilarinho & Nephew, Silves, Faro. —Corks and corkwood. 600

53 Proenca, Francisco Tavares d'Almeida, Castello Branco.—Corkwood. 600

54 Silva, Antonio Jose de Sousa e Vallongo, Oporto.—Cherry tree. 600

55 Peres, Joaquim Manuel de Mattos, Evora.—Corkwood. 600

56 Moreno, P., & Sons, Portalegre.—Corks and corkwood. 600

57 Cordeiro, Caetano Manuel, Evora.—Cork. 600

58 Menezes, C., & Co., Oporto.—Cork and manufactures. 600

59 Direction of the Works of the River Mondego and Figueira bar, Coimbra.—Timber woods and barks. 600

60 Ferreira, Manuel Felix, Villa Cha, Braganca.—Corkwood. 600

61 Vasconcellos, Catharina Mousinho Almadamin, Nisa, Portalegre.—Corkwood. 600

62 Vaz, Eduardo Augusto da Cruz, Castello Branco.—Corkwood. 600

63 Vargas, Antonio Alexandre, Alcacer do Sal, Lisbon.—Corkwood. 600

64 Outeiro Fundao, Viscount of, Castello Branco.—Corkwood. 600

65 Vasconcellos, Joaquim Guilherme de, Elvas, Portalegre.—Woods. 600

66 Saramago, Francisco Ferreira, Reguengo, Evora.—Corkwood. 600

67 Silva, Manuel Joaquim da, Redondo, Evora.—Oak-galls. 600

68 Andrade, Antonio Garcia de, Elvas, Portalegre.—Scarlet oak-bark and corkwood. 600

69 Almeida, Augusto de Asevedo Pinto de, Feira, Aveiro.—Corks. 600

70 Beca, Agostinho da Rocha, Penafiel, Porto.—Corkwood, pine tree, and oak-bark. 600

71 Coelho, Manuel Diogo, Castello de, Vide, Portalegre.—Timber. 600

72 Carreira, Jose Ivo, Peniche, Leiria. —Juniper-wood. 600

73 Calca e Pina, Antonio, Souzel, Portalegre.—Corkwood. 600

74 Robinson, George, Portalegre.—Corkwood. 600

75 Ramalho, Jose Maria, Evora.—Corkwood. 600

76 Salema Mattos, & Co., S. Thiaigo do Cacem.—Corks. 600

77 Pinheiro, Francisco Rodrigues, Marvao, Portalegre.—Corkwood. 600

78 Pereira, Francisco Jose.—Cork and corkwood. 600

79 Souza, Antonio Joaquim, Lanudos, Oporto.—Corkwood. 600

80 Administrator of the Conselho of Mangualde, Mangualde, Viseu.—Timber. 600

81 Almeida, Joaquim Ribeiro, Campanha, Oporto.—Corkwood. 600

82 Camello, Joaquim Augusto da Silveira, Penafiel, Oporto.—Corks. 600

83 Board of Public Forests, Lisbon.—Shipbuilding timber and construction, corks and corkwood. 600

85 Carlos Brandao & Son, Oporto.—Corkwood and cork. 600

86 Casa Nova, Manuel Gonsalves, Beires, Oporto.—Corkwood. 600

87 Biester Campos, & Co., Lisbon.—Corkwood, prepared. 600

88 Zagallo, Antonio Carlos, Elvas, Portalegre.—Corkwood. 600

89 Machado, Joao Jose de Souza, Paredes, Oporto.—Timber. 600

89a Costa Basto & Co., Oporto.—Mahogany woods. 601

90 Corte Real, Antonio Freire, Valle de Prazeres, Castello Branco.—Dyewood. 602

91 Cassola, Antonio Joaquim, Portalegre.—Oak tree and cork tree barks. 602

92 Veiga, Jose Mendes, Covilha, Castello Branco.—Wood dyes. 602

93 Nogueira, Henrique de Sa, Portalegre.—Cork tree bark, oak tree bark, middle layer. 602

94 Cardoso, Francisco de Paula, Alpedrinha, Castello Branco.—Sumac. 602

95 Chaves & Brother, Lisbon.—Saffron-flower. 602

96 Poiares, Antonio Jose da Silva, Cantanhede, Coimbra.—Pitch. 603

97 Gago, Joao Henriques Nunes, Galveas, Portalegre.—Acorns. 605

98 Saraiva, Francisco Martins, Belmonte, Castello Branco.—Dried chestnuts. 605

99 Souza, Manuel Lopes de, Guarda.—Walnuts and chestnuts. 605

100 Silva, Joaquin Nunes da, Elvas, Portalegre.—Acorns. 605

101 Rego, Antonio Profirio Gomes do, Covilha, Castello Branco.—Chestnuts. 605

102 Souto, Antonio Duarte da Cunha, Freixinho, Viseu.—Dried chestnuts. 605

103 Oliveira Soares, M. E. de, Evora.—Acorns. 605

104 Company of Lezirias do Tagus & Sado, Lisbon.—Corkwood. 606

Pomology.

105 Martins, Jeronymo, & Son, Lisbon. —Nuts. 611

106 Margalhaes, Luis Antonio, Aldea, Nova do Cabo, Castello Branco.—Chestnuts. 611

107 Morao, Maria Emilia d'Almeida, Penamacor, Castello Branco.—Olives. 611

108 Mesquita, Pedro Jose de, Sinde, Coimbra.—Dried chestnuts. 611

109 Pereira, Pedro Maria Dantas, Torres Vedras, Santarem.—Almonds. 611

110 Pinto, Clemencia, Villa Boim, Portalegre.—Acorns. 611

111 Oliveira, Verissimo Ferreira A. de, Montalvao, Santarem.—Olives. 611

112 Pessoa, Luis Manuel da Costa, Alfandega da Fé, Braganca.—Olives. 611

113 Ornellas & Lister, Lisbon.—Olives. 611

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

114 Botilheiro, Jose Fernandes, Marvao, Portalegre.—Walnuts. 611

115 Burguete, Miguel Serrao, Sardoal, Santarem.—Walnuts and hazelnuts. 611

116 Silveira, Manuel Jose da, Arganil, Coimbra.—Walnuts. 611

117 Costa, Joao Carlos, Elvas, Portalegre.—Acorns. 611

118 Peres, Joaquim Manuel de Mattos, Evora.—Acorns. 611

119 Santos, Ascencio Jose dos, Valenca, Vianna do Castello.—Chestnuts, filberts, and almonds. 611

120 Pimenta, Jose Maria Dantas, Torres Novas, Santarem.—Walnuts and almonds. 611

121 Coelho, Manuel Diogo, Castello de Vide, Portalegre.—Walnuts and chestnuts. 611

122 Figueira, Manuel Duarte, Castello Branco.—Olives. 611

123 Gomes, Francisco Antonio.—Moncorvo, Braganca.—Olives. 611

124 Gomes, Francisco Antonio.—Olives. 611

125 Garfias, M. J. de L., Villa Nova de, Portimao, Faro.—Almonds. 611

126 Guerra, Joaquim Jose da, Elvas, Portalegre.—Olives. 611

127 Guedes, Francisco Domingues, Castello Branco.—Olives. 611

127*a* Abrancalha Abrantes, Viscount da, Santarem.—Olives. 611

128 Grillo, Manuel Francisco, Ribeiro de Niza, Portalegre.—Walnuts and hazelnuts. 611

130 Jose, Joaquim das, Neves & Sons, Lisbon.—Almonds. 611

132 Peixoto, Jose Nunes de Soura, Penafiel, Oporto.—Acorns. 611

133 Coelho, Jose Justino, Villa de Tamega, Villa Real.—Walnuts. 611

134 Correa, Joaquin, Penacova, Coimbra.—Walnuts. 611

135 Menezes, Manuel Antonio Horta da Vitlarica, Braganca.—Figs. 611

136 Castel Branco, Manuel de Barros, Portalegre.—Chestnuts. 611

137 Direction of Works of the River Mondego and the Figueira bar, Coimbra.—Olives. 611

138 Transto, Leandro Pinto, Maroao, Portalegre.—Walnuts and chestnuts. 611

139 Guerra, Jose da Conceicao, Elvas, Portalegre.—Grapes, olives. 611

140 Castro, Luis Bernardo Lampairo M., Amedo, Braganca.—Walnuts. 611

141 Coutinho, Luis C. de Lucena Araiyo, Vilha da Fonte, Viseu.—Dried chestnuts. 611

142 Camara, Municipal of Penafiel, Penafiel, Oporto.—Walnuts, chestnuts, and filberts. 611

143 Coelho, Antonio Jose, Villela do Tamega, Villa Real.—Dried chestnuts. 611

144 Campos, Antonio Carlos de, Moncorvo, Braganca.—Almonds. 611

145 Miranda, Joaquim Lobo de, Lagos, Faro.—Almonds. 611

146 Nunes, Guilhermes Francisco Pereira, Oliveira do Hospital, Coimbra.—Olives. 611

147 Neves, Adelino, & Son, St. Antonio dos Olivaes, Coimbra.—Filberts. 611

148 Lourinho, Antonio Jose, Monte Carvalho, Portalegre.—Walnuts, chestnuts, and hazelnuts. 611

149 Lanhoso, Jose, Regoa.—Walnuts and almonds. 611

150 Lecocq, Joao Jose, Castello de Vide, Portalegre.—Almonds and walnuts. 611

151 Lopes, Jose Martins Thomar, Santarem.—Figs. 611

152 Lobo, Jose Maria, Guarda.—Walnuts. 611

153 Murteira, Manuel Maria, Campo Maior, Portalegre.—Olives. 611

154 Mattos, Manuel Antonio de, Campo Maior, Portalegre.—Olives. 611

155 Mendes, Casemiro Esteves, Aviz, Portalegre.—Walnuts. 611

156 Martel, Joaquin Trigueras, Pestana, Castello Branco.—Olives. 611

157 Martins, Antonio Joaquin da Silva, Elvas, Portalegre.—Olives. 611

158 Miranda, Manuel Patricio de, Povoa de Meadas, Portalegre.—Olives. 611

159 Miranda, Antonio Augusto Lobo de, Lagos, Faro.—Almonds. 611

159*a* Ribas, Limas, Guarda.—Olives. 611

160 Mira, Jose Paulo de, Evora.—Olives. 611

161 Nogueira, Henrique de Sa, Portalegre.—Chestnuts. 611

162 Margarido, Luis Jose Ferreira, Vila Nova de Foscoa, Guarda.—Almonds 611

163 Moraes, Antonio da Silva, Sardoal, Santarem.—Almonds. 611

164 Matta, Anacleto da Fonseca, Sardoal, Santarem.—Chestnuts. 611

165 Vasconcellas, Manuel S., Quaresma, Cardeisa, Coimbra.—Walnuts. 611

166 Veiga, Francisco Antonio, Goes, Coimbra.—Dried chestnuts. 611

167 Vinva, Jorge, & Sons, Pereiras, Santarem.—Almonds. 611

168 Visetto, Jose Bernardo, Tavira, Faro.—Almonds. 611

169 Veiga, Jose Mendes, Covilha, Castello Branco.—Almonds. 611

170 Saramago, Francisco Ferreira, Reguengo, Evora.—Almonds. 611

171 Saraiva, Francisco Martins, Belmonte, Castello Branco.—Leguminous fruits. 611

172 Antonio, Eduardo Montalvas de, Franca, Portalegre.—Acorns. 611

174 Inchado, Jose Antonio Dias, Mourao, Portalegre.—Walnuts. 611

176 Jara, Loulé, Faro.—Almonds. 611

177 Neves, Jose Joaquin dos, & Bros., Lisbon.—Almonds. 611

178 Trincao, Romao Antunes, Lapas, Santarem.—Walnuts. 611

179 Tavares, Antonio Jose, Covilha Castello Branco.—Nuts, almonds, etc. 611

180 Trigo, Antonio Manuel de Sousa, Moncorvo, Braganca.—Almonds. 611

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Pomology, Agricultural Products.

181 Themuda, Engracia, Narcisca, Barellos.—Oranges. 611

182 Teixeira, Manuel Joaquin Xavier Eiro, Villa Real.—Dried chestnuts. 611

183 Taborda, Joao Manuel Correa Freixo Espada a'Cinta, Braganca.—Almonds. 611

184 Teixeira, Francisco Loureiro Campello, Oporto.—Chestnuts. 611

185 Manuel, Antonio, Mangual de, Viseu.—Walnuts and filberts. 611

186 Mello Faro, Joaquin Carvalho d'Azevedo Resende, Viseu.—Walnuts, filberts, almonds, and chestnuts. 611

187 Magalhaes, Antonio de Barros Sattam, Viseu.—Dried chestnuts. 611

Agricultural Products.

188 Baptista & Co., Lisbon.—Wheat. 620

189 Albergaria, Thomas Antonio Pinto Soares, Villa Cha, Aveiro.—Husks, rye, and Indian corn. 620

190 Almeida, Antonio Mendes Alcacer do Sal, Lisbon.—Wheat. 620

191 Calisto & Dias, S. Thomé de Mira, Coimbra.—Rice. 620

192 Camara, Municipal of Penafiel, Penafiel, Oporto.—Grasses and serradella. 620

193 Souza, Jose d'Andrade e, Portalegre.—Indian corn. 620

94 Souza, Jose Saldanha Oliveira e.—Wheat and rye. 620

95 Santa Clara, Francisco de Paula, Elvas, Portalegre.—Wheat and barley. 620

96 Rosa, Jose da Graca Pereira, Niza, Portalegre.—Rye, Indian corn, and millet. 620

197 Reis, Antonio Nunes dos, Turcifal, Lisbon.—Wheat. 620

198 Rego, Antonio Profirio Gomes do, Covilha, Castello Branco.—Indian corn. 620

199 Ramos, Manuel Nogueira, Goes, Coimbra.—Wheat. 620

200 Almeida, Antonio Joaquim de, Villa Nova de Ourem, Santarem.—Indian corn. 620

201 Cruz, Joao Maria, Setubal, Lisbon.—Spartum. 620

202 Castro, Joao Lopes de, Montargil, Portalegre.—Wheat. 620

203 Corinho, Jose Maria, Montargil, Portalegre.—Indian corn and wheat. 620

204 Corado, Vicente Joaquim, Arronches, Portalegre.—Wheat. 620

205 Cunha Ozorio, Joaquim Felizardo da, Arronches, Portalegre.—Wheat. 620

206 Calca e Pina, Augusto, Souzel, Portalegre.—Wheat. 620

207 Cervantes, Pedro, Peniche, Leiria.—Orchilla weed. 620

208 Calça e Pina, Antonio, Souzel, Portalegre.—Cereals. 620

209 Pinto, Jose Clemente, St. Cruz, Coimbra.—Wheat. 620

210 Gago, Joao Henriques Nunes, Galveas, Portalegre.—Wheat and rice. 620

211 Antao, Manuel Antonio, Miranda do Douro, Bragança—Wheat. 620

212 Araujo, Bernardo, Bretiande, Viseu.—Indian corn. 620

213 Almeida, Joaquim Ribeiro de, Campanha de Vaixo, Oporto.—Indian corn. 620

214 Contada, Jose Domingues, Carapecos, Braga.—Indian corn. 620

215 Britto, Joao de, Lisbon.—Wheat. 620

216 Gouvea, Jose dos Santos, Constanca, Santarem.
a Cereals. 620
b Leguminous plants. 621

217 Mello e Faro, Joaquim Carvalho d'Azevedo, Resende, Viseu.
a Indian corn and wheat. 620
b Pannick grass. 624

218 Yosso, Joas Jose da Matta, Serpa, Beza.
a Oats. 620
b Chick-peas. 621

219 Tavares, Antonio Jose, Covilha, Castello Branco.
a Cereals. 620
b Leguminous fruits. 621

220 Teixeira, Carlos Augusto, Grandola, Lisbon.
a Rice. 620
b Beans. 621

221 Guerreiro, Antonio Manuel, Villa Nova da Cerveira, Vianna do Castello.
a Wheat, rye, Indian corn. 620
b Beans. 621
c Linseed. 624

222 Gomes, Antonio Luis, Valença, Vianna do Castello.
a Indian corn. 620
b Beans. 621
c Linseed. 624

223 Miranda, Antonio Augusto Lobo de, Lagos, Faro.
a Indian corn and wheat. 620
b Peas, carob beans, lupines. 621
c Linseed. 624

224 Magalhaes, Luis Antonio, Aldea Nova do Cabo, Castello Branco.
a Rye. 620
b Beans, kidney beans. 621
c Potatoes. 622

225 Rapozo, Luis, Miranda do Douro, Braganca.—Rye. 620

226 Ribeiro, Jose Rodrigues, Miranda do Douro, Braganca.—Barley. 620

227 Rua, Manuel Ribeiro, Magueija, Viseu.—Wheat. 620

228 Rosette, Jose, Palancoulo, Braganca.—Wheat. 620

229 Velho, Jose Bernardino Bringel, Beja.—Wheat. 620

230 Vieira, Francisco de Lemos Cunha, Evora.—Wheat, rye, and barley. 620

231 Machado, Pedro Xavier, Portalegre.—Wheat and rye. 620

232 Moraes, Jose Bazilio de, Arronches, Portalegre.—Wheat. 620

233 Murteira, Antonio Maria, Campo Maior, Portalegre.—Wheat. 620

234 Lobao Francisco Rasquilha, jr., S. Bartholomeo, Portalegre.—Wheat and rye. 620

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Agricultural Products.

235 Lobo, Jose Maria, Guarda.—Trefoil, ray-grass. 620

236 Lemos, Francisco Antonio Pereira, Villarelhos, Braganca.—Wheat. 620

237 Neves, Francisco Xavier, Azinhoza, Braganca.—Wheat. 620

238 Nogueira, Manuel Martins, Goes, Coimbra.—Indian corn. 620

239 Nunes, Guilherme Francisco Pereira, Oliveira do Hospital, Coimbra.—Wheat. 620

240 Pera, Francisco Marcos, Miranda do Douro, Braganca.—Wheat. 620

241 Lopes, Jacintho, Elvas, Portalegre.—Wheat. 620

242 Lima, Antonio Joaquim Fernandes, Villa Nova da Cerveira, Vianna do Castello.—Wheat and Indian corn. 620

243 Lemos, Joao Gonsalves de, Louza, Coimbra.—Indian corn. 620

244 Mechanical Bakery of the Poorhouse, Lisbon.—Wheat. 620

245 Pessoa, Antonio Jose dos Reis, S. Bartholomeo, Coimbra.—Indian corn and wheat. 620

246 Pinheiro, Jose Henrique, Sta. Maria, Braganca.—Wheat. 620

247 Pinto, Jose, Penude, Viseu.—Indian corn. 620

248 Pinto, Joao de Azevedo, Campello, Oporto.—Indian corn. 620

249 Pamperio, Ricardo de Souza, Vallongo, Oporto.—Cereals. 620

250 Margalhaes, Francisco T., Sinde, Coimbra.—Indian corn. 620

251 Leite, Antonio Bernardo d'Oliveira, Cabeceiras de Basto, Braga.—Indian corn and wheat. 620

252 Lobo, Bartholomeo Jose, Oliveira do Hospital, Coimbra.—Indian corn. 620

253 Madeira, Joaquim Anastasio, Monforte, Portalegre.—Wheat. 620

254 Mendes, Bernardo, Portalegre.—Indian corn. 620

255 Marmello, Jose, Portalegre.—Indian corn. 620

256 Nunes, Antonio, Elvas, Portalegre.—Wheat. 620

257 Ortega, Maria Luisa, Miranda do Douro, Braganca.—Wheat. 620

258 Oliveira, Claudino Augusto Mocorvo, Bragança.—Indian corn. 620

259 Valente, Antonio Joaquim, Torre do Cabedal, Portalegre.—Wheat. 620

260 Vargas, Antonio Alexandre, Alcacer do Sal, Lisbon.—Wheat. 620

261 Viscount of Alcacer do Sal, Alcacer do Sal, Lisbon.—Wheat. 620

262 Valdez, Antonio de Campos, Alcacer do Sal, Lisbon.—Wheat and rice. 620

263 Vasconcellos, Ezequiel Augusto de, Elvas, Portalagere.—Wheat. 620

264 Silva Carvalho, Jose Leonardo da, Vianna, Evora.—Wheat and barley. 620

265 Silva, Manuel Joaquim da, Redondo, Evora.—Wheat. 620

266 Sardinha, Joao Maria da Silva, Monforte, Portalegre.—Wheat, rye, barley, and oats. 620

267 Lacerda, Jose de Aragao Costa, Aldea Nova do Cabo, Castello Branco.—Trefoil. 620

268 Andrade, Adriano Pequito Seixas de, Gaviao, Portalegre.—Rice. 620

269 Acciole, Joao da Fonseca, Portalegre.—Oats. 620

271 Bastos, Manuel Jose Teixeira, S. Miguel de Refoyos, Braga.—Indian corn. 620

272 Brandao, Francisco Antonio, Reboreda, Vianna.—Indian corn. 620

273 Peres, Joaquim Manuel de Mattos, Evora.—Wheat. 620

274 Pimentel, Antonio Augusto de Moraes, Castello Branco, Braganca.—Rye and wheat. 620

275 Pinto, Antonio Rodrigues, Coimbra.—Cereals. 620

276 Silveira, Manuel Jose da, Arganil, Coimbra.—Indian corn. 620

277 Poiares, Antonio Jose Silva, Cantanhede, Coimbra.—Indian corn, wheat, rice. 620

278 Silva, Antonio Lopes da, Balazar, Oporto.—Indian corn. 620

279 Penedo, Francisco Antonio, Beja.—Wheat. 620

280 Picao, Amaro Jose de Bastos, Aventosa, Portalegre.—Wheat. 620

281 Peireira, Henrique Augusto, Setubal, Lisbon.—Rice. 620

282 Pinto, Luis Marques, Elvas, Portalegre.—Wheat. 620

283 Souza, Augusto Pereira d'Abreu, Sta. Marinha, Villa Real.—Indian corn. 620

284 Souza, Victorino Alves, Oporto.—Wheat. 620

285 Silva, Joaquim Medas da, Ribeiro das Avessas, Porto.—Indian corn. 620

286 Lousa, Jose Luis Rodrigues, Verdoejo, Vianna do Castello.—Indian corn and rye. 620

287 Salgueiro, Jose Avelino Affonso, Segandoes, Vianna do Castello.—Indian corn. 620

288 Salgueiro, Jose Avelino Affonso, Segandoes, Vianna Castello.—Indian corn, and rye. 620

289 Santos, Antonio Ferreira dos, Rio Tinto, Oporto.—Wheat and barley. 620

290 Carneiro, Jose Antonio, Sta. Eulalia, Portalegre.—Wheat and rye. 620

291 Coelho, Jose Fialho, Moura, Beja.—Wheat and barley. 620

292 Campanhia das Lezirias do, Tejo e Sado, Lisbon.—Wheat and barley. 620

293 Pinheiro, Jose de Moura, Idanha a Nova, Castello Branco.—Wheat. 620

294 Queiroz, Sebastiao Machado Botelho, S. Pedro, Villa Real.—Indian corn. 620

295 Ruivo, Joao Lopes, Vianna do Alemtejo.—Wheat, rye, and barley. 620

296 Carvalho, Joao Antonio de, Porto de Moz, Leiria.—Wheat. 620

297 Chaves & Brother, Lisbon.—Wheat. 620

298 Dornas, Luis Cazemiro Pinto dos, Bigorne, Viseu.—Rye. 620

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Agricultural Products.

299 Diogo, Paulo Joao, Miranda do Douro, Bragança.—Rye. 620

300 Duro, Francisco dos Santos, Vianna do Alemtejo.—Wheat, barley, and maize. 620

301 Figueiredo, Augusto de Sa, Marques e, Barrelas, Viseu.—Wheat. 620

302 Freitas, Joao Alves Pinto de, S. Joao d'Ovil, Oporto.—Indian corn and wheat. 620

303 Ferreira, Joao Dias, Vallongo, Oporto.—Wheat and Indian corn. 620

304 Filippe, Jose Antonio, Cepoes, Viseu.—Indian corn. 620

305 Franco, Jose da Costa, Beja.—Wheat. 620

306 Franco, Eduardo, Fronteira, Portalegre.—Wheat. 620

307 Ferreira, Jose, Montargil, Portalegre.—Wheat. 620

308 Fonseca Santos, Antonio Germano da, Redondo, Evora.—Wheat. 620

309 Ferro, Martinho Luiz, Beringel, Beja.—Wheat. 620

310 Fonseca, Francisco da Costa Ramos Pinto da, Fronteira.—Wheat. 620

311 Gomes, Jose da Costa, Balazar, Oporto.—Wheat. 620

312 Guimaraes, Jose Fernandes, Serpa, Beja.—Wheat. 620

313 Lapa, Joaquim Pereira, Sernacelho, Viseu.—Wheat and rye. 620

314 Lima, Lino, Anciaes, Bragança.—Rye and wheat. 620

315 Caetano, Joaquim Antonio, Montargil, Portalegre.—Indian corn. 620

316 Leao, Antonio Moreira, Guilhufe, Oporto.—Wheat and rye. 620

321 Moreira, Joao Baptista, Rates, Oporto.—Wheat. 620

322 Valente, Jose Justiniano d'Oliveira, Estarreja, Aveiro.—Barley and oats. 620

323 Trigo, Jose Antonio Horta da Villanica, Braganca.—Wheat. 620

324 Tavares, Jose da Costa Andrade, Alpedrinha, Castello Branco.—Wheat. 620

325 Vieira, Manuel Pinto da Silva, S. Thiago de Custoias, Oporto.—Wheat and barley. 620

326 Teixra, Manuel Joaquim Xavier, Ciro, Villa Real.—Barley. 620

327 Teixeira, Francisco Loureiro, Campello, Oporto.—Wheat. 620

328 Xavier, Francisco de Paulo, Benavente, Santarem.—Wheat. 620

329 Monteiro, Jose de Sousa, Viseu.—Rye and Indian corn. 620

330 Manuel Luis, Gondivae, Oporto.—Indian corn. 620

331 Moutinho, Joaquim Thome, Rio Tinto, Oporto.—Indian corn and rye. 620

332 Mousa, Joao Carlos, Marques de, & Gomes, Francisco, S. Salvador, Aveiro.—Indian corn, wheat, rye, barley, and rice. 620

333 Martins, Anselmo Jose, Eiro, Villa Real.—Rye. 620

334 Mourao, Victorino Teixeira Correia, Lordello, Viseu.—Indian corn. 620

335 Macias, Francisco de Pera, Miranda do Douro, Braganca.—Wheat. 620

336 Mostardinha, Jose Marques, Oliveirinha, Aveiro.—Wheat. 620

337 Malta, Affonso Bernardino Ochoa, Braganca.—Wheat. 620

338 Mirandella, Pedro Aleixo de, Mirandella, Braganca.—Wheat. 620

339 Malheiro, Manuel Joao Barrellas, Viseu.—Indian corn. 620

340 Menezes, Jose de Vasconcellos Carneiro, Soalhaes, Mario de Canavezes.—Indian corn, wheat, barley, rye. 620

341 Magalhaes, Antonio de Barros, Sattam, Viseu.—Wheat. 620

342 Carvalho, Luis Candido, Valle Passos, Villa Real.
a Indian corn and rye. 620
b Beans. 621

343 Coelho, Luis Pires Sardoal, Santarem.
a Cereals. 620
b Chick-peas and kidney beans. 621

344 Correa, Joaquim, Penacova, Coimbra.
a Indian corn, rye, wheat, and barley. 620
b Beans and peas. 621

345 Carvalho, Joaquim Augusto da Silveira, Penafiel, Oporto.
a Rice and maize. 620
b Beans and peas. 621

346 Costa, Manuel Jorge da, Valongo, Oporto.
a Barley. 620
b Beans. 621

347 Barbosa, Manuel Carneiro, Valongo, Oporto.
a Indian corn. 620
b Beans. 621

348 Bastos, Pedro Jose da Silva, Miranda do Corvo, Coimbra.
a Indian corn. 620
b Beans. 621

349 Alvarrao, Joao do Bomsucesso, Elvas, Portalegre.
a Canary-seed. 620
b Chick-peas. 622

350 Alvim, Joao Cordoso de Souza, Alter do Chao, Portalegre.
a Cereals. 620
b Spices. 623
c Linseed. 624

351 Beca, Agostinho da Rocha, Penafiel, Oporto.
a Millet-seed. 620
b Beans. 621

352 Callado Senior, Joao da Costa, Alter do Chao, Portalegre.
a Wheat. 620
b Chick-peas, kidney beans, and lupines. 621

353 Chichorro, Andre Guilherme, Monforte, Portalegre.—Wheat. 620

354 Almeida, Joaquim Ribeiro, Campanha, Oporto.
a Indian corn. 620
b Beans. 621

355 Administrative Council of Montemor o Velho, Coimbra.
a Indian corn, wheat, and rice. 620
b Beans and peas. 621

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Agricultural Products.

356 Administrative Council of Guimaraes, Braga.—Wheat, rye, Indian corn, pannick. 620

357 Annes, Antonio Joaquim, Eiro, Villa Real.
a Indian corn. 620
b Beans. 621

358 Administrative Council of Poiares, Poiares, Coimbra.
a Lupines. 620
b Beans. 621

359 Araujo & Brother, Lisbon.
a Rice flour. 620
b Leguminous flour. 621

360 Asevedo, Jose Rodrigues de, Benavente, Santarem.
a Indian corn. 620
b Kidney beans and lentiles. 621

361 Pereira, Jose Agostinho Mancio, S. Thiago, Lisbon.
a Rice. 620
b Kidney beans. 621

362 Silva, Antonio Jose de Sousa e, Vallongo, Oporto.
a Wheat. 620
b Linseed. 624

363 Palmeiro, Xavier Rosado, Alter do Chao, Portalegre.
a Barley, wheat, oats, rye, Indian corn. 620
b Beans. 621

364 Pinto da Fonseca, Francisco Ramos, Fronteira, Portalegre.
a Wheat. 620
b Chick-peas. 621

365 Ribas, Simao, Guarda.
a Wheat and Indian corn. 620
b Chick-peas, potatoes, onions, and garlic. 621

366 Silva, Antonio Jose da, Leca do Balio, Oporto.
a Rye. 620
b Beans. 621

367 Bogalho, Joao Joaquim, Villa Boim.
a Wheat. 620
b Beans. 621

368 Calça e Pina, Antonio, Souzel, Portalegre.
a Cereals. 620
b Leguminous articles. 621

369 Coutto, Joaquim Lucio do, Elvas, Portalagre.
a Wheat. 620
b Chick-peas. 621

370 Figueiredo, Jose Paulo Teixeira de Matheus, Villa Real.
a Indian corn. 620
b Potatoes. 622

371 Direction of Works of the River Mondego and the Figueira bar, Coimbra.
a Indian corn, rye, and oats. 620
b Seeds. 624

372 Cordes, Balthazar, Barcarena, Lisbon.
a Wheat. 620
b Beans. 621

373 Cardozo, Antonio Augusto Correa da Silva, Cellorico, Guarda.
a Rye, wheat, and barley. 620
b Kidney beans, and chick-peas. 621

374 Gomes, Antonio Xavier Correa, Sattam, Viseu.
a Pannick and rye. 620
b Beans. 621

375 Fernandes, Manuel Ignacio, Telloes, Villa Real.
a Rye, Indian corn. 620
b Beans. 621

376 Fernandes, Antonio Vicente d'Almeida, Benavente, Santarem.
a Indian corn. 620
b Kidney beans and chick-peas. 621

377 Formosinho, Jose Maria Gomes, Serpa, Beja.
a Barley and rye. 620
b Beans. 621

378 Fragozo, S. Thiago, Lisbon.
a Rice. 620
b Kidney beans. 621

379 Fernandes, Joaquim Filippe, Beja.
a Wheat. 620
b Leguminous plants. 621

380 Fiuza, Domingos Antonio, Evora.
a Wheat, rye, and barley. 620
b Beans. 621

381 Guerra, Joaquim Jose da, Elvas, Portalegre.
a Wheat. 620
b Leguminous fruits. 621

382 Vaz Preto Geraldes, Manuel Louza, Castello Branco.
a Wheat. 620
b Beans and peas. 621

383 Egreja, Manuel Antonio, Torroso, Oporto.
a Indian corn. 620
b Beans. 621

384 Inchado, Jose Antonio Dias Mourao, Portalegre.
a Cereals. 620
b Kidney beans. 621

385 Marreco, Miguel Antunes, Miranda do Corvo, Coimbra.
a Indian corn. 620
b Beans. 621

386 Leas, Manuel da Cunha, Sobreira, Oporto.—Wheat, 620

387 Egreja, Jose Francisco de Serra, Novaes, Oporto.
a Wheat and Indian corn. 620
b Beans. 621

390 Saraiva, Francisco Martins, Belmonte, Castello Branco.
a Cereals. 620
b Onions. 621

391 Sobrinho, Rafael Baptista, Alvito, Beja.
a Wheat. 620
b Beans. 621

392 Souza e Mello, Antonio Machado de, S. Sebastiao, Ponta Delgada.
a Barley and corn. 620
b Kidney beans. 621

393 Souza, Manuel Lopes de, Guarda.
a Cereals. 620
b Kidney beans and chick-peas. 621
c Potatoes. 622

394 Matto, Antonio Mendes de, Alpedrinha, Castello Branco.
a Cereals. 620
b Leguminous fruits. 621

395 Vaz, Eduardo Augusto da Cruz, Castello Branco.
a Wheat. 620
b Chickpeas and beans. 621

396 Vasella, Jose jr., Gomes, Serpa, Beja.
a Wheat. 620
b Beans. 621

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Agricultural Products.

397 Abrancalha, Viscount of, Abrantes, Santarem.
a Wheat, barley, rice, Indian corn. 620
b Butter. 651

398 Boa, Viscount of, Vista, Beja.—Wheat. 620

399 Villas, Manuel Pereira, Torroso, Oporto.
a Barley, corn, wheat, Indian corn. 620
b Beans. 621

400 Veiga, Francisco Antonio, Goes, Coimbra.
a Indian corn. 620
b Beans. 621

401 Valente, Jose Justiniano d'Oliveira, Estarreija, Aveiro.
a Oats and barley. 620
b Seed. 624

402 Montoso, Andre de Brito Monforte, Portalegre.
a Indian corn. 620
b Beans. 621

403 Mira, Jose Paula de, Evora.
a Wheat, barley, Indian corn. 620
b Kidney-beans, lupines. 621

404 Novaes, Antonio Jose Cabeceiras de Basto, Braga.
a Indian corn. 620
b Beans. 621

405 Oliveira, Manuel Rodrigues, Fraguas, Viseu.—Indian corn, wheat. 620

406 Mendes, Luis Antonio Soares, Castello Branco.
a Wheat. 620
b Chick-peas and kidney beans. 621

407 Moniz, Antonio Bernardino da Fonseca, Baracal, Guarda.
a Indian corn, rye, wheat. 620
b Kidney beans. 621
c Millet-seed. 624

408 Oliveira, Verissimo, Ferreira A. de, Montalvo, Santarem.
a Cereals. 620
b Beans. 621

409 Lacerda, Jose de Aragao Costa, Aldea Nova do Cabo, Castello Branco.
a Indian corn, wheat. 620
b Beans, chick-peas. 621

110 Pedroza, Maria Jose Lopes, Lavos, Coimbra.
a Cereals. 620
b Beans, chick-peas, lupines. 621
c Linseed. 624

111 Mourato, Mathias, Alpalhao, Portalegre.
a Cereals. 620
b Kidney beans. 621

112 Viuva Marques & Sons, Lisbon.
a Indian corn and wheat. 620
b Beans. 621

113 Morgado, Joao Alves, Constanca, Santarem.
a Cereals. 620
b Leguminous fruits. 621

114 Queiroz, Jose de Sequeira Pinto, S. Sabastiao do Duque, Vianna do Castello.
Cereals and husks. 620
Beans. 621
Seeds and pine kernels. 624

415 Rangel, Manuel de Souza, Guilhufe, Oporto.
a Corn. 620
b Beans. 621

416 Ribeiro, J. Lopes, Anciaes, Braganca.
a Corn. 620
b Beans. 621

417 Roquete, Jose Ferreira, Salvaterra, Santarem.
a Cereals. 620
b Kidney beans. 621

418 Rijo, Filippe de Jesus, Elvas, Portalegre.
a Wheat. 620
b Chick-peas. 621

419 Risques, Augusto, Aviz, Portalegre.
a Cereals. 620
b Beans. 621
c Potatoes. 622

420 Souza, Manuel Paulo de, Miranda do Douro, Braganca.
a Wheat and rye. 620
b Chick-peas. 621

421 Sa, Antonio Alves do Conto e, Germunde, Oporto.
a Wheat and Indian corn. 620
b Beans. 621

422 Souto, Antonio Duarte da Cunha, Freixinho, Viseu.
a Indian corn. 620
b Beans. 620

423 Silva, Joaquim Ribeiro da, Valongo, Oporto.
a Wheat. 620
b Beans. 621

424 Salgado, Julio Bivar d'Azavedo e, Sardoal, Santarem.
a Cereals. 620
b Beans. 621

425 Silva, Antonio Jose da, Salvaterra, Santarem.
a Wheat. 620
b Chick-peas. 621

426 Silva, Joaquim Tavares da Cruz, Aldei da Matta, Portalegre.
a Millet. 620
b Beans. 621

427 Coelho, Luis Pires, Sardoal, Santarem.
a Cereals. 620
b Chick-peas and kidney beans. 621

428 Pimentel, Jose Reis, Castello de Vide, Portalegre.
a Cereals. 620
b Chick-peas. 621

429 Coelho, Manuel Diogo, Castello de Vide, Portalegre.
a Cereals. 620
b Beans. 621

430 Casqueiro, Jose Maria, Crato, Portalegre.
a Cereals. 620
b Beans. 621

431 Caldeira, Miguel Joaquim, Elvas, Portalegre.
a Wheat. 620
b Chick-peas. 621

432 Coutinho, Fernando Alffonso d'Almeida, Sepins, Coimbra.
a Wheat and Indian corn. 620
b Beans. 621

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

433 Casa Nova, Manuel Gonsalves, Beires, Oporto.—Wheat, corn, Indian corn, barley. 620

434 Christina, Manuel Lopes, Alhaes, Viseu.—Wheat. 620

435 Carvalho, Luis Xavier do Amaral, Rio de Moinhos, Viseu.—Wheat and Indian corn. 620

436 Calcado, Antonio Jose, S. Pedro, Villa Real.—Indian corn. 620

437 Cadaval, Francisco de Sousa, Villa Nova da Cerveira, Vianna do Castello.—Wheat and Indian corn. 620

438 Coelho, Antonio Jose, Villa do Tamega, Villa Real.—Rye. 620

439 Coelho, Joao dos Santos, Villa Nova de Souto de El Rei, Viseu.—Indian corn and wheat. 620

440 Azevedo, Joao Rodrigues de, Benavente, Santarem.
a Wheat. 620
b Chick-pea. 621

441 Peixoto, Jose Nunes de Sousa, Penafiel, Oporto.
a Indian corn. 620
b Vegetable seed. 624

442 Cadaval, Francisco de Sousa, Villa Nova da Cerveira, Vianna do Castello.—Beans. 621

443 Corte Real, Antonio Freire, Valle de Prazeres, Castello Branco.—Kidney beans. 621

445 Abreu, Francisco Rodrigues de, Abrantes, Santarem.—Kidney beans. 621

446 Alcantara, Francisco Augusto Mendes de, Lagares, Coimbra.—Beans. 621

447 Alves, Jose Martins, Novaes, Oporto.—Beans. 621

448 Administrative Council of Coimbra.—Leguminous fruits. 621

449 Grillo, Manuel Francisco, Ribeiro de Niza, Portalegre.
a Kidney beans. 621
b Potatoes. 622

450 Ramires, Jose Peres, S. Thiago, Lisbon.
a Kidney beans. 621
b Linseed. 624

451 Leao, Jose Maria Carneiro, Figueira, Oporto.
a Pannick grass. 620
b Beans. 621
c Millet-seed. 624

452 Veiga, Jose Mendes, Covilha, Castello Branco.
a Pumpkins, leguminous fruits, and potatoes. 621
b Seeds. 624

453 Rosa de Jesus, Maria Angelica, Porto.—Turnips, radishes, etc. 621

454 Monteiro, Julio Pereira, Villa Fernando, Guarda.—Potatoes. 622

455 Vasconcellos, Duarte, Loureiro, Viseu.—Hops. 623

456 Alvim, Joao Cardoso de Souza, Alter do Chao, Portalegre.—Mustard. 623

457 Calcada, Antonio da Costa, S. Pedro, Villa Real.—Beans. 621

458 Castro, Miguel Ozorio, Cabral de Santa Clara, Coimbra.—Beans and peas. 621

459 Carvalho, Antonio Jose de, Elvas, Portalegre.—Chick-pea. 621

460 Coelho, Jose Justino, Villa do Tamega, Villa Real.—Beans and chick-peas. 621

461 Andrade, Francisco B. d'Almeida, Celorico Guarda.
a French and other beans. 621
b Potatoes. 622

462 Alvarrao, Joao de, Bom Successo, Elvas, Portalegre.
a Chick-pea. 621
b Canary-seed. 624

463 Pimenta, Isidoro E. O. C. Marques, Villa Boim, Portalegre.—Chick-peas and kidney beans. 621

464 Pygnatelli, Jose da Cunha, Guarda.
a Kidney beans. 621
b Linseed. 624

465 Freire, Joao Pereira, Penafiel, Oporto.
a Beans. 621
b Pine kernels and seeds. 624

466 Santos, Ascencio Jose dos, Valenca, Vianna do Castello.—Beans and peas. 621

467 Pereira, Jose Geraldode Sa, Trancoso, Guarda.—Kidney beans. 621

468 Botilheiro, Jose Fernandes, Marvao, Portalegre.—Kidney beans. 621

469 Condessa d'Anadia, Santa Clara, Coimbra.—Beans. 621

470 Carvalho, Jose Fernandes Antunes de, Goes, Coimbra.—Beans. 621

471 Cruz, Jose Bento, Armamar, Viseu.—Bean. 621

472 Castro, Jose d'Almeida Siloa e, Miranda do Corvo, Coimbra.—Beans. 621

473 Costa, Antonio Ferreira da, Villa Cha de Cangueiros, Viseu.
a Beans. 621
b Potatoes. 622

474 Asevedo, Jose de, Alter do Chaos, Portalegre.—Kidney beans. 621

475 Braga, Luiz Barbosa, Penafiel, Oporto.—Beans. 621

476 Barjona, Pedro Simoes Affonso, S. Thomé de Misa, Coimbra.—Beans. 621

477 Poiares, Antonio Jose da Silva, Cantanhede, Coimbra.—Beans. 621

478 Souza, Jose Luis Rodrigues de, Valenca, Vianna do Castello.—Beans. 621

479 Silva, Antonio Jose de Sousa e, Vallongo, Oporto.—Beans and onions. 621

480 Pinto, Antonio Rodrigues, S. Bartholomeu, Coimbra.—Beans, chick-peas, and lupines. 621

481 Pinto, Luis Marques, Elvas, Portalegre.—Beans. 621

482 Pinto, Antonio Mascarade, Villa Boim, Portalegre.—Chick-peas. 621

483 Pinto, Augusto Leal de Gouvea, Miranda do Corvo, Coimbra.—Beans. 621

484 Mello, Bento de Castro Coelho e, S. Thiago, Coimbra.—Beans. 621

485 Martins, Joaquim, Boucas, Oporto.—Beans. 621

486 Joaquim Guilherme de Vasconcellos & Sons, Elvas, Portalegre.—Leguminous plants. 621

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Agricultural Products.

487 Jara, Loule, Faro.—Carob beans. 621

488 Guimaraes, Victorino Barbosa, Penafiel, Oporto.—Beans. 621

489 Gomes, J. Carlos, & Moura, F. A., Margues de, S. Salvador, Aveiro.—Peas, lupines, lentils. 621

490 Torres, Bernardo Jose, Novaes, Oporto.—Garlic. 621

491 Tenorio, Matheus Rodrigues, Alter do Chao, Portalegre.—Kidney beans. 621

492 Gomes, Jose Libanio, Villa Nova de Portimao, Faro.—Carob. 621

493 Martins, Jeronymo, & Son, Lisbon. —Beans. 621

496 Moreira, Luis Jose, Lanudos, Oporto.—Beans. 621

497 Martins jr., Manuel Jose, Amorim, Oporto.—Beans. 621

498 Mattos, Manuel Henriques de, Goes, Coimbra.—Beans. 621

499 Moutinho, Joaquim Thomé, Gondomar, Oporto.—Beans. 621

500 Faro, Joaquim de Carvalho Azevedo, Reizende, Viseu.—Beans. 621

501 Fernandes, Jose Antonio, Valenca, Vianna do Castello.—Beans. 621

502 Ferreira, Joao Dias, Valongo, Oporto.—Beans. 621

503 Falcao, Maria Miquelina, Miranda do Corvo, Coimbra.—Beans. 621

504 Ferreira, Manuel da Costa, Marvao, Portalegre.—Kidney beans. 621

505 Fernandes, Joaquim Pinto, Campello, Oporto.—Beans. 621

506 Freire, Amancio Antonio de Sequeira, Alemquer, Lisbon.—Kidney beans. 621

507 Gomes, Joao Carlos, Ilhavo, Aveiro. —Beans. 621

508 Vieira, Venancio Dias de Figueiredo, Eiro, Aveiro.—Beans. 621

509 Visetto, Francisco Manuel, Tavira, Faro.—Carob. 621

510 Santos, Antonio Joaquin, Vianna. —Beans. 621

512 Soares, Jose B., Celorico, Guarda. —Kidney beans and chick-peas. 621

513 Sampaio, Alexandre Tavares de Mello, Guarda.—Kidney beans and chick-peas. 621

514 Silva, Jose Nunes da, Elvas, Portalegre.—Beans. 621

515 Dias, Luis Antonio, Miranda do Corvo, Coimbra.—Beans. 621

516 Meira, Matthias, Ribeira de Niza, Portalegre.—Kidney beans and chick-peas. 621

517 Neves, Adelino, Santo Antonio dos Olivaes, Coimbra.—Beans. 621

518 Neves, Francisco Xavier, Azinhosa, Braganca.—Chick-peas. 621

519 Neves, Jose Marquesdas, Vallongo, Oporto.—Beans. 621

520 Negrao, Joaquim d'Almeida, Portimao, Faro.—Carob. 621

521 Oliveira, Fortunato Antonio, Goes, Coimbra.—Beans. 621

522 Ozorio, Alvaro de Azevedo, Tarouca, Viseu.—Beans. 621

523 Vasconcellos, Manuel S. Quaresma, Candcixa, Coimbra.—Chick-peas. 621

524 Magalhaes, Francisco F. Sinde, Coimbra.—Beans. 621

525 Pinto, Clemencia, Villa Boim, Portalegre.—Chick-peas. 621

526 Pimentel, Antonio Augusto de Moraes, Castello Branco, Braganca.—Chick-peas, lupines. 621

527 Martins, Anselmo Jose, Ciro, Villa Real.—Beans. 621

528 Lapa, Joaquim Pereira, Sernacelhe, Viseu.—Beans. 621

529 Leite, Antonio Bernardo d'Oliveira, Cabeceiras de Basto, Braga.—Beans. 621

530 Lessa, Antonio dos Santos, Boucas, Oporto.—Beans. 621

531 Monteiro, Francisco Vaz, Ponte de Sor, Portalegre.—Kidney beans. 621

532 Oliveira Soares, M. E. de, Evora.
a Cereal. 620
b Leguminous fruits. 621

533 Moran, Jose Antonio Martins, Vianna do Alemtejo.—Windsor beans. 621

534 Lemos, Joao Gonsalves de Souza, Coimbra.—Beans. 621

535 Ozorio, Manuel de Azevedo Ferrao, Monforte, Castello Branco.—Kidney beans. 621

536 Macedo Pinto, Joaquim Ferreira de, Taboaco, Viseu.—Beans. 621

537 Lopes, Jose Ramos, Airo, Braga.—Beans. 621

538 Mourao, Victorino F. C., Lordello, Villa Real.—Beans. 621

539 Motta, Abel Maria, Rabacal, Coimbra.—Chick-peas. 621

540 Lobo, Jose Maria, Guarda.—Kidney beans. 621

541 Lopes, Jacintho, Elvas, Portalegre. —Beans and chick-peas. 621

542 Miranda, Joaquim Lobo de, Lagos, Faro.—Beans. 621

543 Menezes, Jose Vasconcellos Carneiro, Marco de Canavezes, Oporto.—Beans. 621

544 Loureiro, Antonio Lopes, Amorim, Oporto.—Beans. 621

545 Leite, Joao Baptista de Araujo, Mirandella, Braganza.—Chick-peas. 621

546 Leite, Joaquim Maria Felgueiras, Mogadouro, Braganca.—Chick-peas. 621

547 Lima, Antonio Joaquim Fernandes, Villa Nova da Cerveira, Vianna do Castello.—Beans. 621

548 Macedo jr., Ventura Luis de, Lisbon.—Kidney beans, chick-peas. 621

549 Mattos, Manuel Antonio de, Campo Maior, Portalegre.—Chick-peas. 621

550 Mendes, Casemiro Esteves, Aviz, Portalegre.—Kidney beans. 621

551 Moreira, Domingos, jr., Boucas, Oporto.—Beans. 621

552 Maia, Manuel de Arevedo, Villa do Conde, Oporto.—Beans. 621

553 Maia, Jose Gomes, Amorim, Oporto. —Garlic. 621

555 Leitao, Alberto, Penacova, Coimbra.—Chick-peas and beans. 621

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Agricultural, Animal, and Vegetable Products.

556 Salgado, Marianno Roza, Lanudos, Oporto.—Beans. 621

557 Santos, Joaquim Ferreira, S. Martinho do Campo, Oporto.—Beans. 621

558 Souza, Pedro Augusto Pereira Abreu e, Santa Marinha, Villa Real.—Beans. 621

559 Rodrigues, Francisco Pedro, Grandola, Lisbon.—Beans. 621

560 Reis, Antonio Simoes dos, Condeixa, Coimbra.—Beans. 621

561 Rebello Valente & Allen, Oporto.—Beans. 621

562 Matta, Anacleto da Fonseca, Sardoal, Santarem.—Kidney beans. 621

563 Mendes, Raymundo Jose Soares, Abrantes, Santarem.—Chick-peas, kidney beans. 621

564 Guedes, Viscount de, Evora.—Beans. 621

565 Carreira, Jose Ivo, Peniche, Leiria.—Castor-oil beans. 621

566 Albergaria, Thomaz Antonio Pinto Soares, Villa Cha, Aveiro.—Beans. 621

567 Coelho, Jose Justino, Villa do Tamega, Villa Real.—Beans. 621

568 Carvalho, Luis Xavier do Amaral, Rio de Moinhos, Viseu.—Beans. 621

569 Seixas, Jose Maria Ayres de, Gaviao, Portalegre.– Beans. 621

570 Silva, Marcellino Ferreira da, Lisbon.—Chick-peas and kidney-beans. 621

571 Silva, Jeronymo Jose Alves da, Elvas, Portalegre.—Chick-peas. 621

572 Silva, Antonio Jose da, Boucas, Oporto.—Beans. 621

573 Factory of Tobacco, Lealdade, Oporto.—Cut leaf, cigars, cigarettes, and snuff. 623

574 Factory of Miguel Augusto da Silva Pereira, Oporto.—Tobacco. 621

575 Factory of Tobacco, Liberdade, Oporto.—Cut tobacco, cigars, and cigarettes. 623

576 Lisbon Tobacco Co., Lisbon.—Cigars and snuff. 623

578 Ferreira & Co., Lisbon.—Chocolate. 623

579 Vasconcellos, Duarte, Loureiro, Viseu.—Hops. 623

580 Cunha, Antonio Jose, Paredes de Coura, Vianna do Castelho.—Millet seed. 624

581 Coutinho, Luis C. de Lucena, Araujo, Villa da Fonte, Viseu.—Millet seed. 624

582 Camello, Joaquim Augusto da Silveira, Penafiel, Oporto.—Seeds. 624

583 Administrative Council of Cantanhede, Coimbra.—Seeds. 624

584 Albergaria, Thomaz Antonio Pinto Soares, Villa Cha, Aveiro.—Grape seed. 624

585 Mesquita, Pedro Jose de, Sinde, Coimbra.—Linseed. 624

586 Margarido, Luis Jose Ferreira, Villa Nova de Foscoa, Guarda.—Sumach. 624

587 Alvim, Joao Cardoso de Souza, Alterido do Chao, Portalegre.—Linseed. 624

588 Sousa, Jose Luis Rodrigues, Verduejo, Vianna do Castello.—Linseed. 624

589 Castel-Branco, Manuel de Barros, Portalegre.—Acorns. 624

590 Fernandes, Joaquim Filippe, Beja.—Acorns and seeds. 624

591 Valente, Jose Justiniano d'Oliveira, Estarreja, Aveiro.—Seeds, pine kernels. 624

592 Guerreiro, Antonio Manuel, Villa Nova da Cerveira, Vianna do Castello.—Linseed. 624

Marine Animals, Fish Culture, and Apparatus.

593 Neto, Manuel Jose Setubal, Lisbon.—Preserved fish. 641

594 Ornellas & Linder, Lisbon.—Preserved fish. 641

595 Fabrica Povoense, Povoa de Varsim.—Preserved fish. 641

596 Freitas, Joao S., jr., Setubal, Lisbon.—Preserved sardines. 641

597 Direction of the Works of Mondego River and Figueira bar, Coimbra.—Preserved fish. 641

598 Romao, Joanna Balbina, Aveiro.—Preserved fishes. 641

599 Leite & Co., Francisco, Alcantarilha, Faro.—Salt tunny-fish. 642

599*a* Pilao e Luxes, A. d'O., e J. G. L. Ovar.—Models of fishing nets. 647

599*b* Oliveira, Gaspar Jose, Oporto.—Fishing nets. 647

Animal and Vegetable Products.

600 Gomes, J. Carlos, & Moura, F. A., Marques de S. Salvador, Aveiro.
a Seaweeds. 650
b Olive oils. 662

601 Queiroz, Jose de Sequeira Pinto, S. Sebastiao do Duque, Vianna do Castello.
a Seaweeds. 650
b Wine and brandy. 660

602 Morgado, Francisco Xavier Annes, Miranda do Douro, Braganca.—Cheese. 651

603 Formosinho, Jose Maria Gomes, Serpa, Beja.—Cheese. 651

604 Franco, Jose da Costa, Beja.—Cheese. 651

605 Coelho, Antonio, Gouvea, Guarda.—Cheese. 651

606 Lobo, Jose Maria, Guarda.—Cheese. 651

607 Saraiva, Francisco Martins, Belmonte, Castello Branco.—Cheese. 651

608 Sobrinho, Jose Guerreiro de L., Ferreira, Beja.—Cheese. 651

609 Callado, Joao da Costa, jr., Alter do Chao, Portalegre.—Cheese. 651

610 Pereira, Jose Francisco, Castello de Vide, Portalegre.—Cheese. 651

611 Penedo, Francisco Antonio, Beja.—Cheese. 65

612 Valladares, Pedro d'Ordaz, Castello Branco.
a Cheese. 65
b Olives. 65
c Wine. 66
d Olive oil. 66

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Animal and Vegetable Products.

613 Viegas, Agostinho Thomas dos Santos, Cea, Guarda.
a Cheese. 651
b White wine. 660
c Olive oil. 662

614 Vicondessa d'Oleiros, Castello Branco.
a Cheese. 651
b Olives. 656
c Olive oil. 662

615 Calca e Pina, Antonio, Souzel, Portalegre.
a Cheese. 651
b Honey. 654
c Preserved meats. 656
d Olive oil. 662

616 Pimentel, Jose Reis, Castello de Vide, Portalegre.
a Cheese. 651
b Honey. 654

617 Aboim, Joao Cardoso de Souza, Alter do Chao, Portalegre.
a Cheese. 651
b Preserved meats. 656
c Wines and vinegar. 660

618 Abrunhosa, Joao Caetano de, Castello Branco.
a Cheese. 651
b Olives and preserved meat. 656
c Olive oil. 662

619 Alvim, Joao Cardoso de Souza, Alter do Chao, Portalegre.
a Cheese. 651
b Preserved meat. 656
c Wine and vinegar. 660

621 Coelho, Manuel Diogo, Castello de Vide, Portalegre.
a Cheese. 651
b Preserved meats and olives. 656

622 Alcantara, Francisco Augusto Mendes de, Lagares, Coimbra.
a Cheese. 651
b Wine and brandy. 660

623 Cazal, Eliziario, Cea, Guarda.
a Cheese. 651
b Red wine. 660
c Vegetable oils. 662

623*a* Pimenta, Isidora, E. O. C. Margues, Villa Boim, Portalegre.
a Cheese. 651
b Honey. 654
c Preserved meat. 656
d Brandy. 660

624 Fernandes, Joaquim Filippe, Beja.
a Cheese. 651
b Olive oil. 662

624*a* Boa, Viscount da, Vista, Beja.
a Cheese. 651
b Olive oil. 652

625 Gago, Joao Henriques Nunes, Galveas, Portalegre.
a Cheese. 651
b Olive oil. 662

626 Vaz Preto, Geraldes, Manuel Lousa, Castello Branco.
a Cheese. 651
b Honey. 654
c Wine. 660
d Olive oil. 662

627 Tenreiro, Manuel Guerra, Freixo d'Espada á Cinta, Braganca.
Cheese. 651
Honey. 654
Olives. 656
Olive oil. 662

628 Taborda, Joao Manuel Correa, Freixo d'Espada á Cinta, Braganca.
a Cheese. 651
b Olives. 656
c Olive oil. 662

629 Goncalves, Jose Joaquim, Elvas, Portalegre.
a Cheese. 651
b Honey. 654

630 Martel, Joaquim Trigueiros Pestana, Castello Branco.
a Cheese. 651
b Olive oil. 662

631 Oliveira Soares, M. E. de, Evora.
a Cheese. 651
b Honey. 654
c Vinegar. 660
d Olive oil. 662

632 Oliveira, Jose Miguel de, Moura, Beja.
a Cheese. 651
b Preserved meat. 656

633 Lobo, Bartholomeo Jose, Oliveira do Hospital, Coimbra.
a Cheese. 651
b Red wine. 660
c Olive oil. 662

634 Veiga, Jose Mendes, Covilha, Castello Branco.
a Cheese. 651
b Dried fruits and olives. 656
c Vinegar. 660
d Olive oil. 662

635 Cavalleri, P., & Co., Lisbon.
a Butter and cheese and milk. 651
b Olives, gums, preserved meat and fruits. 656

636 Raposo, Joao, do Carmo, Moura.
a Cheese. 651
b Olives. 656
c Olive oil. 662

637 Pinto, Luis Marques, Elvas, Portalegre.
a Cheese. 651
b Preserved meat. 656

638 Pinto, Joaquim Pereira da Costa, Sousel, Portalegre.
a Cheese. 651
b Olive oil. 662

639 Moraes, Rodrigo Antonio Leite de, Oporto.—Hides. 652

640 Viuva Chaves & Son, Guimaraes.—Leather and skins. 652

641 Alcantara & Bros., Joao Antonio, Lisbon.—Leather and skins. 652

642 Godinho, Francisco Ferreira, Cruz, Quebrada.—Leather and skins. 652

643 Jose Maria d'Andrade, & Bros., Valenca.—Leather and calfskin. 652

643*a* Lamos, Jose, & Co., Lisbon.—Belting and cables for machinery. 652

644 Santos, Narcizo Jose dos, Evora.—Animal charcoal. 652

645 Lamas & Co., Jose, Lisbon.—Leather. 652

645*a* Ramos, Joaquim Antonio, Beja.—Goatskins. 652

646 Ferreira, Camillo P. da C., Oliveira d'Azemeis.—Leather. 652

647 Joao Antonio Alcantara & Sons, Lisbon.—Leather and skins. 652

or classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Animal and Vegetable Products.

648 Gama, Antonio Domingos d'Oliveira, Oporto.—Hides. 652

649 Ferreira, Antonio Cyprianno, Lisbon.—Leather and skins. 652

650 Fernandes, Lucas, Macao, Santarem.—Skins. 652

651 Ferreira & Bro., Casaes dos Gallegos, Santarem.—Kidskins. 652

652 Cassola, Antonio Joaquim, Portalegre.—Leather and skins. 652

653 President of the Municipal Chamber of Lisbon.—Tallow. 652

654 Jeronymo, Francisco Manuel, Coicas, Braganca.—Skins, hides. 652

655 Jose Maria d'Andrade & Bros., Valenca.—Leather, calfskin. 652

656 Oliveira, Custodio de, Adufe, Braga.—Glue. 652

657 Viuva, Machado, & Sons, Alcanena.—Hides. 652

658 Cerqueira, Lima, & Co., Vianna do Castello.—Leather, hides, skins, and glue shavings. 652

659 Smidt, Joao Luis, Oporto.—Skins. 652

660 Martins, Andre, Sobrado, Oporto.—Wax. 654

661 Veira, Manuel, Melres, Oporto.—Honey. 654

661*a* Mello, Antonio Jose Teixeira, Lisbon.—Wax. 654

662 Tenorio, Matheus Rodrigues, Alter do Chao, Portalegre.—Honey. 654

662*a* Silva, Diogo Monteiro, Lisbon.—Manufactured wax. 654

663 Torregon, Antonio Joaquim, Redondo, Evora.—Honey. 654

664 Juzarte, Jose Francisco, Monforte, Portalegre.—Honey. 654

665 Garcia, Jose Camillo, Almodovar, Beja.—Wax. 654

666 Espada, J. C., Vallejo, Portalegre.—Honey. 654

670 Garcao, Jose Maria, Elvas, Portalegre.—Honey and wax. 654

671 Figueiredo, Joaquim de, Aviz, Portalegre.—Honey. 654

672 Contreiras, Jose da Silva, Almodovar, Beja.—Honey-comb and honey. 654

673 Bussaco, Jose Rodrigues, Grandala, Lisbon.—Honey. 654

674 Boucinha, Manuel da Costa, Balthasar, Oporto.—Honey and honey-comb. 654

675 Braga, Joas Jose de Sousa, Oporto.—Honey. 654

676 Mello, Antonio Jose, Ferreira, Lisbon.—Honey and wax. 654

677 Moraes, Jose, Basilio de Arronches, Portalegre.—Honey. 654

678 Atlen Rebello Volente, Oporto.
a Honey. 654
b Wines. 660
c Olive oil. 662

679 Pessoa, Luis Manuel da Costa, Alfandega da Fé, Bragança.—Honey. 654

680 Loureiro, Bento Maria, Aldeia Nova, Beja.—Honey. 654

681 Saramago, Francisco Ferreira, Reguengo, Evora.—Honey. 654

682 Sena, Joao Pereira, Montargil, Portalegre.—Honey. 654

683 Vinva de Manuel, Pedro do, Alter do Chao, Portalegre.—Wax. 654

684 Vassallo, Jose Baptista, Alcanena, Santarem.—Bleached wax. 654

685 Vieia, Francisco de Semas, Cunha, Evora.—Honey. 654

686 Vieira, Jose Augusto, Evora Cidade, Evora.—Honey, white and yellow wax. 654

687 Miranda, Joaquin Antonio de Reguengo, Portalegre.—Honey and honey-comb. 654

688 Moreira, David Martins, Castello de Vide, Portalegre.—Bleached wax. 654

689 Moita, Jose Francisco, Aldeia Nova, Beja.—Honey. 654

690 Raposa, Vicente Narcizo, Castello de Vide, Portalegre.—Honey. 654

691 Silva, Joao Miguel, Santa Eulalia, Portalegre.—Honey. 654

692 Costa da Mendiga, Jose da, Mendiga, Leisia.—Honey. 654

693 Santos, Luis Marcelino dos, Freiro, Braganca.—Honey. 654

694 Silva, Antonio Mendes da, Linhares, Braganca.—Honey. 654

695 Pereira, Jeronymo, Serpa, Beja.—Honey. 654

696 Pinheiro, Jose de Sousa Idanha a, Nova Castello, Braganca.—Honey. 654

697 Carvalho, Jose Fernandes Antonio de, Goes, Coimbra.—Honey. 654

698 Abreu, Jose Martins de, Aloens, Viseu.—Honey. 654

699 Albergaria, Thomas Antonio Pinto, Loases, Villa Cha Avero.—Honey and wax. 654

700 Almeida, Francisco de Mattos, Penafiel, Porto.—Wax. 654

701 Adelino, Joao Manuel Joaquim, Elvas, Portalegre.—Honey. 654

702 Almida, Joaquin S. Momao, Castello de Vide, Portalegre.—Honey. 654

703 Perez, Roure, & Co., S. Thiago do Cacem, Lisbon.
a Honey and wax. 654
b Rice. 657
c Wine. 660
d Olive oil. 662

704 Lemos, Francisco Antonio Pereira, Villarelhos, Braganca.
a Honey. 654
b Red wine. 660

705 Falcao, Jeronymo Fernandes, Lamas, Coimbra.
a Honey. 654
b Wine. 660

706 Bello, Manuel Guei fao, Marcas, Santarem.
a Honey. 654
b Wines. 669
c Olive oil. 662

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Animal and Vegetable Products.

707 Pimentel, Antonio Augusto de Moraes, Castello Branco, Bragança.
- *a* Honey. 654
- *b* Olives. 656
- *c* Olive oil. 662

708 Baptista, Jose Antonio, Mirandella, Bragança.
- *a* Honey. 654
- *b* Brandy. 660

709 Baptista, Jose Ignacio de Macedo, Mirandella, Bragança.
- *a* Honey. 654
- *b* Brandy. 660

710 Allen Rebello Volente, Oporto.
- *a* Honey. 654
- *b* Port and muscadine wine. 660
- *c* Olive oil. 662

711 Administrador do Concelho de Poiares, Poiares, Coimbra.
- *a* Wax. 654
- *b* Olive oil. 662

712 Pinto, Clemencia, Villa Boim, Portalegre.
- *a* Honey. 654
- *b* Brandy. 660

713 Andrade, Antonio Pequito, Leiras de Gavias, Portalegre.
- *a* Honey. 654
- *b* Dried grapes. 656

714 Calca e Pina, Augusto, Sourel, Portalegre.
- *a* Honey. 654
- *b* Olive oil. 662

715 Figueiredo, Jose Cereira de, Sattam, Visen.
- *a* Honey. 654
- *b* Wine. 660

716 Coelho, Jose Fialho, Mousa, Beja.
- *a* Honey. 654
- *b* Preserved meat. 656

717 Fernandes, Manuel Ignacio, Telloes, Villa Real.
- *a* Honey. 654
- *b* Dried chestnuts. 656

718 Fonseca Santos, Antonio Germano da, Redondo, Evora.
- *a* Honey. 654
- *b* Vinegar. 660
- *c* Olive oil. 662

719 Gouvea, Jose dos Santos, Constanca, Santarem.
- *a* Honey. 654
- *b* Wine. 660

720 Fernandes, Jose Manuel, Redondo.
- *a* Honey. 654
- *b* Vinegar. 660

721 Magalhaes, Jose Joaquim do Silva, Villa Nova da Gaia, Oporto.
- *a* Wax. 654
- *b* Olive oil. 662

722 Tocha, Jose Rodrigues, Estremos, Coova.
- *a* Honey. 654
- *b* Olives. 656
- *c* Wine and vinegar. 660
- *d* Olive oil. 662

723 Monte, Jose Manuel do, Redondo, Evora.
- *a* Wax and honey. 654
- *b* Brandy and vinegar. 660
- *c* Olive oil. 662

724 Nunes, Antonio Candido, Elvas, Portalegre.
- *a* Honey. 654
- *b* Vinegar. 660

725 Miranda, Antonio Augusto Lobo de, Lagos, Faro.
- *a* Honey. 654
- *b* Wine, brandy, vinegar. 660
- *c* Olive oil. 662

726 Lemos, Antonio da Cunha d'Azevedo, S. Joao da Pesqueira, Viseu.
- *a* Honey. 654
- *b* Wine and brandy. 660

727 Menezes, Jose de Vasconcellos, Canavezes, Porto.
- *a* Honey. 654
- *b* Wine, vinegar. 660
- *c* Olive oil. 662

728 Margiochi, Francisco, jr., Simoes, Lisbon.
- *a* Honey. 654
- *b* Wine. 660
- *c* Olive oil. 662

729 Marcal, Joao Lopes, Evora.
- *a* Honey. 654
- *b* Olive oil. 662

730 Pinto Basto, Augusto Ferreira, Oliveira do Bairro, Aveiro.
- *a* Honey. 654
- *b* Olive oil. 662

731 Silva, Joaquim Nunes da, Elvas, Portalegre.
- *a* Honey. 654
- *b* Olive oil. 662

732 Sobrinho, Rafael Baptista, Alvito, Beja.
- *a* Honey. 654
- *b* Wines. 660

733 Vasconcellos, Catharina Mousinho Almadaminus, Nisa, Portalegre.
- *a* Honey. 654
- *b* White wine. 660

734 Viscount of Guedes, Evora.
- *a* Honey. 654
- *b* Wine. 660
- *c* Olive oil. 662

735 Mattos, Manuel Antonio de, Campo Maior, Portalegre.
- *a* Honey. 654
- *b* Dried grapes. 656
- *c* Brandy, wines, vinegar. 660
- *d* Olive oil 662

736 Mira, Jose Paulo de, Evora.
- *a* Honey. 654
- *b* Vinegar. 660
- *c* Olive oil. 662

737 Montoia, Diogo Lopes, Castello Branco.
- *a* Honey. 654
- *b* Olive oil. 662

738 Morgado, Joas Aloes, Constanca, Santarem.
- *a* Honey. 654
- *b* Brandy, red and white wine, vinegar. 660
- *c* Olive oil. 662

739 Matta, Antonio Nunes, Grandola, Lisbon.
- *a* Honey. 654
- *b* Wine. 660

740 Queimado, Isidoro Maria, Redondo, Evora.
- *a* Honey. 654
- *b* Brandy, white wine, and vinegar. 660

741 Rosa, Jose da Graca Pereira, Nisa, Portalegre.
- *a* Honey. 654
- *b* Preserved meat. 656
- *c* White wine, brandy, and vinegar. 660
- *d* Olive oil. 662

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Animal and Vegetable Products.

742 Rosa, Joaquim Matheus Vieira, Villa Nova de Ourem, Santarem.
a Honey. 654
b Olive oil. 662

743 Rodrigues, Francisco Pedro, Grandola, Lisbon.
a Wax and honey. 654
b Wine. 660
c Olive oil 662

744 Sa, Antonio Aloes do Conto e, Germunde, Oporto.
a Honey. 654
b Olive oil. 662

745 Santos, Joaquim Ferreira, S. Martinho do Campo, Oporto.
a Honey. 654
b Wine. 660

746 Serra, Joaquim, Valle Formoso, Santarem.
a Honey. 654
b Olive oil. 662

747 Sa, Sabino Barros de, Pouco de Soudo, Santarem.
a Honey. 654
b Olive oil. 662

748 Santos, Ascencio Jose dos, Valenca, Vianna do Castello.
a Wax. 654
b Sweetmeats. 656
c Wine. 660

749 Pereira, Joao M., Constania, Santarem.
a Honey. 654
b Olive oil. 662

750 Pedroso, Henrique Caldeira, Castello Branco.
a Honey. 654
b Olives. 656
c White wine. 660
d Olive oil. 662

751 Bertao, Ladislau Xavier, Torrao, Beja.
a Honey. 654
b Olive oil. 662

752 Rosado, Joao Antonio Margues, Redondo, Evora.
a Honey. 654
b Red and white wine, and brandy. 660
c Olive oil. 662

753 Rosado, Antonio Joaquim da Silva, Zambujeiro, Evora.
a Honey. 654
b Red wine. 660

754 Pinheiro, Candido Alberto A., Monxique, Faro.
a Honey. 654
b Olives. 656
c Olive oil. 662

755 Mascarenhas, S., Faro.—Dried fruits. 656

756 Moura, Francisco Antonio Margues, Ilhavo, Aveiro.—Olives. 656

757 Menezes, Jose Correa, Lamego, Viseu.—Dried fruits. 656

758 Mattos, Maria do Livramento, Oporto.—Preserved fruit. 656

759 Maria do, Gloria, & Co., Oporto.—Preserved fruits. 656

760 Leal, Costa, & Co., Lisbon.—Preserved meats, fish, and fruits. 656

761 Torres, Rodrigo Bravo, Novellos, Penafiel.—Olives and pickled pepperpods. 656

762 Trigo, Antonio Manuel de Sousa, Moncorvo, Bragança.—Sweetmeats. 656

763 Themuda, Engracia Narcisa, Barcellos.—Sweetmeats. 656

764 Teixeira, Francisco de Sa, Salsedas, Viseu.—Dried figs. 656

765 Victorino, Jose, Braganca.—Ham. 656

766 Varsea & Coelho, Oporto.—Preserved meats, fish, olives, etc. 656

767 Tapadinha, Jose Joaquim, Portalegre.—Preserved meats. 656

768 Trindade, Alfredo, Faro.—Figs. 656

769 Themudo, Jose Vicente, Castello de Vide, Portalegre.—Preserved meats. 656

771 Sanhoso, Jose Regoa.—Elderberries, raisins, and dried figs. 656

773 Oliveira & Co., Jose Antonio de.—Preserved meats, fish, fruits, vegetables, and sweetmeats. 656

774 Jose Joaquim dos Neves & Sons, Lisbon.—Dried figs. 656

775 Lehmann, J. W., Gustav, Oporto.—Sweetmeats. 656

777 Guimaraes, Antonio, Faro.—Dried figs. 656

778 Gomes, Jose Libanio, Villa Nova de Portimao, Faro.—Dried figs. 656

779 Gouvea, Jose Bernardino d'Abren, Sande, Viseu.—Preserved fruits. 656

780 Rodrigues & Nephew, Fernando, Lisbon.—Preserved meat, vegetables, and fruits. 656

781 Franco, Joaquim, Portimao, Faro.—Dried figs. 656

782 Ferreira Convent, Ferreira d'Aves, Viseu.—Dried plums. 656

783 Dantas Pimenta, Jose Maria, Torres Novas, Santarem.—Dried fruit. 656

784 Castanheiro, Balthazar Rodrigues, Lisbon.—Sweet fruits. 656

785 Barros, Jose Xavier Pereira, Villa Real, Tras-os-Montes.—Sweetmeats. 656

786 Leitao, Alberto, Penacova, Coimbra.—Dried damsons. 656

787 Pimenta, Anna Augusta de Souza, S. Joao de Lobrigos, Viseu.—Dried fruits. 656

788 Ornellas & Lisher, Lisbon.—Preserved fruits and vegetables, sweetmeats and fruits. 656

789 Le Cocq, Joao Jose, Castello de Vide, Portalegre.—Olives. 656

790 Silva, Domingos da, Elvas, Portalegre.—Olives. 656

791 Valentim, Jose, Arraiollos, Evora.—Preserved meats. 656

792 Mendes, Augusto Alexandre Esteves, Aviz, Portalegre.—Preserved meat. 656

793 Mascarenhas, Luis de, Portimao, Faro.—Dried figs. 656

794 Rodrigues, Antonio Manuel, Vinhaes, Braganca.—Sausages. 656

795 Romao, Joanna Balbina, Aveiro.—Sweetmeat. 656

796 Mello, Luis de Mendonca e, Tavira, Faro.—Dried figs. 656

797 Miranda, Joao Eduardo Lobo de, Faro.—Dried figs. 656

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Animal and Vegetable Products.

798 Roza, Julia Pimenta Cobral, Setubal, Lisbon.—Preserved orange. 656

799 Rijo, Joaquin Antonio, Elvas, Portalegre.—Olives. 656

800 Regallo, Jose Maria da Fonseca, Campo Maior, Portalegre.—Olives. 656

801 Serzedello, Joao Pereira, Elvas, Portalegre.—Preserved asparagus and olives. 656

802 Souza, Jose Saldanha Oliveira e.—Olives. 656

803 President of the Commission of Vianna, Vianna do Castelho.—Preserved fish. 656

804 Mina, S. Thome de, Coimbra.—Preserved fish. 656

805 Vidamrel, J. J. da, Trinidad Dias, Coimbra.—Preserved fish. 656

806 Callisto, Manuel M. Pimentel, Coimbra.—Preserved fish. 659

807 Carvalho, Albino Justinianno, Condeixa, Coimbra.—Dried figs. 656

808 Campello, Evaristo Jose Ferraz de Moraes, Anciaes, Braganca.—Raisins. 656

809 Carvalho, Antonio Miguel de, Sattam, Viseu.—Olives. 656

810 Correa, Antonio de Sousa, Oporto.—Olives. 656

811 Cellas Convent, Santo Antonio do Olivaes.—Preserved fruits. 656

812 Carmo, Bazilia Maria do, Arronches, Portalegre.—Preserved meat. 656

813 Conceicao, Joas Nunes da, Elvas, Portalegre.—Dried fruit, olives, and pickles. 656

814 Belem, Silvestre Polycarpo Correa, Lisbon.—Preserved fruits, preserved fish, and vegetables. 656

815 Campos, Luis Jose de, S. Pedro de Miragaia, Oporto.—Olives. 656

816 Castro, Joaquim Caetano de, Oporto.—Hams. 656

817 Piteira, Fernandez Joaquim Filippe, Reguengo, Evora.—Pork meat. 656

818 Proenca, Vasconcellos, Faro.—Figs. 656

819 S. Bento d'Ave Maria Convent, Oporto.—Sweetmeat. 656

820 Semide Convent, Semide, Coimbra.—Preserved turnips. 656

821 Silva, Francisco Ferreira da, Oporto.—Sausages. 656

822 Sta. Clara Convent, Guimaraes.—Sweetmeats. 656

823 Souza, Conceicao Margues, Alves, Oporto.—Preserved fruits. 656

824 Sta. Rosa de Lima Convent, Guimaraes.—Preserved fruits. 656

825 Santa Clara Convent, Santa Clara, Coimbra.—Sweetmeat. 656

826 Rocha, Feliciano Antonio da, Setubal, Lisbon.—Preserved fish. 656

827 Passos, Jose Francisco Rodriguez, Fuzeta, Faro.—Dried figs. 656

828 Peixto, Augusto Gavia, Serpa, Beja.—Olives. 656

829 Botelho, Antonio C., Fayal, Azores.—Sausages. 656

830 Carvalho, Rosa Guilhermina de, Cancella Velha, Porto.—Chocolate. 656

831 Cid, Jose Ignacio, Mirandella, Braganca.—Olives, murt. 656

832 Cruz, Jose Bento, Armamamar, Viseu.—Honey. 656

833 Angelica, Rosa de Jesus Maria, Oporto.—Preserved fruits. 656

834 Barros, Rita Candida de, Castello de Vide, Portalegre.—Olives. 656

834*a* Pereira, Pedro Maria Dantas, Torres Vedras, Santarem.
- *a* Dried grapes. 656
- *b* Olive oil. 662

835 Larcher, Emilia Adelaide, Portalegre.
- *a* Preserved fruits. 656
- *b* Syrups of groseille. 659

836 Miranda, Joaquim, Lobo de, Lagos, Faro.
- *a* Dried figs. 656
- *b* Red wine and vinegar. 660

837 Martins, Isidoro, Borba, Evora.
- *a* Dried fruits. 656
- *b* Wines. 660
- *c* Olive oil. 662

838 Negrao, Joaquim d'Almeida, Portimao, Faro.
- *a* Dried figs. 656
- *b* Wine. 660

839 Gallope, Fernando dos Santos, Portalegre.
- *a* Currant syrup. 656
- *b* Wine. 660

840 Bentes, Antonio Joaquim, Serpa, Beja.
- *a* Olives. 656
- *b* Olive oil. 662

841 Andrada, Antonia Garcia de, Elvas, Portalegre.
- *a* Preserved meat. 656
- *b* Olive oil. 662

842 Castello Branco, Joao da Silva Ferrao, Santa Iria, Lisbon.
- *a* Pickles, preserved fruits, and sardines in oil. 656
- *b* Olive oil. 662

843 Cunha, Joaquim Guilherme da, Castello Branco.
- *a* Olives. 656
- *b* Wines. 660
- *c* Olive oil. 662

844 Castel-Branco, Antonio Mendo, Caldeira, Alter do Chao, Portalegre.
- *a* Preserved meat. 656
- *b* Vinegar. 660
- *c* Olive oil. 662

845 Atalya, Count of, Santarem.
- *a* Honey. 656
- *b* Wine. 660
- *c* Olive oil. 662

846 Guerra, Jose da Conceicao, Elvas, Portalegre.
- *a* Dried fruits. 656
- *b* Wine and liquor. 660

847 Theotonie, Joaquim Manuel, Serpa, Beja.
- *a* Olives. 656
- *b* White wine. 660
- *c* Olive oil. 662

848 Taborda, Antonio Theodoro Ferreira, Penamacor, Castello Branco.
- *a* Olives. 656
- *b* Red wine. 660
- *c* Olive oil. 662

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Animal and Vegetable Products.

849 Trinoao, Roman Antunes, Lapas, Santarem.
a Dried figs and grapes. 656
b Wines and brandy. 660

850 Administrative Council of Lausado, Lausado, Oporto.
a Sweet fruit. 656
b Red wine. 660

852 Almeida, Bernardo Caieiro de, Serpa, Beja.
a Olives. 656
b Olive oil. 662

853 Barboza, Paulo da Silva, Oporto.
a Sweetmeats. 656
b Biscuits. 661

854 Burguete, Miguel Serrao, Sardoal, Santarem.
a Olives, dried fruit. 656
b Vinegar. 660

855 Costa Falcao, Antonio Ozorio d'Azevedo da, Alpedrinha, Castello Branco.
a Olives. 656
b White wine. 660
c Olive oil. 662

856 Figueiredo, Antonio Jose de, Carrazeda d'Anciaes, Braganca.
a Olives. 656
b Wine. 660
c Olive oil. 662

857 Ferreira, Antonio Manuel, Torres Novas, Santarem.
a Dried fruits. 656
b Wine and brandy. 660

858 Feria, Jose Maria de la, Serpa, Beja.
a Olives. 656
b Wine and brandy. 660

859 Figueira, Gaspar Augusto, Evora.
a Sugared almonds. 656
b Wines and brandy. 660

860 Ferreira & Co., Lisbon.
a Candy. 656
b Syrups. 659
c Lemonade. 660

861 Martins, Jeronymo, & Son, Lisbon.
a Dried fruits. 656
b Wines. 660
c Olive oil. 662

862 Guedes, Francisco Domingues, Castello Branco.
a Sausages. 656
b Olive oil. 662

863 Magalhaes, Luis Antonio, Aldea Nova do Cabo, Castello Branco.—Timber, corkwood, sweet fruits.
a Dried fruits. 656
b Wine. 660
c Olive oil. 662

864 Mendes, Luis Antonio Soares, Castello Branco.
a Dried chestnuts. 656
b Vinegar. 660

865 Macedo Pinto, Joaquim Ferreira de, Toboaco, Viseu.
a Preserved fruits, elderberries. 656
b Wines. 660
c Olive oil. 662

866 Lemos, Antonio Maria Tovar de Moura, Beja.
a Olives. 656
b Vinegar. 660
c Olive oil. 662

867 Lacerda, Jose de Aragao Costa, Aldea Nova do Cabo, Castello Branco.
a Olives, potatoes. 656
b Wine, vinegar. 660

868 Nunes, Guilherme, Francisco Pereira, Oliveira do Hospital, Coimbra.
a Dried fruits. 656
b Wheat flour. 657
c White wine and vinegar. 660

869 Lima, Honorio Fiel, Portalegre.
a Preserved fruits. 656
b Wine. 660
c Olive oil. 662

870 Larcher Marcal, Maria Adelaide, Portalegre.
a Preserved fruits, truffles. 656
b Syrups. 659

871 Souza, Manuel Alves de, Castello Branco.
a Olives. 656
b Olive oil. 662

872 Souza Pinto, Francisco de Gamboa, Castello Novo, Castello Branco.
a Olives. 656
b Olive oil. 662

873 Vaz, Eduardo Augusto da Cruz, Castello Branco.
a Preserved meat, olives. 656
b Red wine. 660
c Olive oil. 662

875 Santa Anna, Jose Candido de, Elvas.
a Olives. 656
b Olive oil. 662

876 Salgado, Julio Bivar d'Azevedo, Sardoal, Santarem.
a Dried pears. 656
b Wines. 660
c Olive oil. 662

877 Pinto, Francisco Xavier de Moraes, Mirandella, Braganca.
a Raisins. 656
b Red wine. 660

878 Perdigao, Miguel Salvado R., S. Miguel de Machede, Evora.
a Preserved fruit. 656
b Wine. 660

879 Pinto, Antonio Joaquim Nogueira, Villa Real.
a Red wine. 656
b Raisins. 660

880 Pires, Antonio Joaquim, Lisbon.
a Sweet fruits and meats. 656
b Liquors. 660

881 Ramos, Joao Joaquim, Redondo, Evora.
a Preserved grapes. 656
b Starch. 658
c Red and white wine, brandy. 660

882 Pimenta, Jose Maria Dantas, Torres Novas, Santarem.
a Dried figs. 656
b Wine and brandy. 660

883 Costa, Jose Rodrigues da, Penamacor, Castello Branco.
a Olives. 656
b Olive oil. 662

884 Antonio, Eduardo, Montalvao, Portalegre.
a Preserved meat and fruits. 656
b Olives and olive oil. 662

885 Teixeira, Francisco Loureiro, Campello, Oporto.—Wheat flour. 657

886 Veiga, Maria Christina de Napoles Figueiredo, Goes, Coimbra. — Potato flour. 657

887 Lopes, Alvaro Pereira de Bettencourt, Ponta Delgada.—Flour. 657

888 Lima, Lino, Anciaes, Braganca.—Wheat and rye flour. 657

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12-14.

Animal and Vegetable Products.

889 Leao, Antonio Moreira, Guilhufe, Oporto.—Wheat and rye flour. 657

890 Egreja, Manuel Antonio, Torroso, Oporto.—Corn flour. 657

891 Egreja, Jose Francisco de Serra, Novaes, Oporto.—Wheat and corn flour. 657

892 Moreira, Joas Baptista, Rates, Oporto.—Wheat flour. 657

897 Gomes, Jose da Costa, Balazar, Oporto.—Wheat flour. 657

898 Ferreira, Januario da Silva, Elvas, Portalegre.—Corn flour. 657

899 Costa & Brother, Portalegre.—Corn flour. 657

901 Acacio Manuel Pereira, & Augusto Risques, Alter do Chao, Portalegre.—Corn, wheat, and rye flour. 657

902 Nunes, Vicente Ferreira, Lisbon, Lisbon.—Rice. 657

903 Pinto, Joao de Arevedo, Campello, Oporto.—Corn flour. 657

904 Villar, Manuel Pereira, Torroso, Oporto.—Barley flour. 657

905 Moreno, Jose Joaquim, S. Thiago, Lisbon.—Rice. 657

906 President of the Municipality of Penafiel, Oporto.—Corn flour. 657

907 Costa, Antonio Ignacio da, Elvas, Portalegre.—Corn flour. 657

908 Silva, Antonio de Sousa e Vallongo, Oporto.—Corn flour. 657

909 Silva, Antonio Manuel, Vimioso, Braganca.—Wheat flour. 657

910 Souza, Victorino Alves, Oporto.—Wheat flour. 657

911 Pereira, Henrique Augusto, Setubal, Lisbon.—Wheat flour. 657

912 Pinto, Antonio Rodrigues, Coimbra.—Wheat flour. 657

913 Casa Nova, Manuel Gonsalves, Beires, Oporto.—Barley flour. 657

914 Carvalho, Jose Joaquim de, Ermida, Villa Real.—Wheat flour. 657

915 Pullido, Manuel, Marvao, Portalegre.—Wheat flour. 657

916 Silva, Antonio Lopes da, Balasar, Oporto.—Corn flour. 657

917 Conceicao, Jose dos Santos, Leca de Bailio, Oporto.—Indian corn flour. 657

918 Camara, Hermelinda Gago da, Ponta Delgada, Azores.
a Potato flour. 657
b Macaroni. 658

919 Camara, D. H. Gagoda, Ponta Delgada, Azores.
a Arrowroot flour, potato. 657
b Macaroni. 658

920 Baptista & Co., Lisbon.
a Wheat flour. 657
b Macaroni. 658

921 Chaves & Brother, Lisbon.
a Semolino. 657
b Macaroni. 658

922 Pamperio, Ricardo de Souza, Vallongo, Oporto.
a Wheat flour. 657
b Biscuits. 661

923 Pamperio, Antonio di Sousa Motta, Vallongo, Oporto.
a Wheat flour. 657
b Biscuits. 661

924 Alves & Bros., Lisbon.—Macaroni. 658

924*a* Mendonca, Thomaz Antunes de, Lisbon.—Starch and rice powder. 658

925 Sobrinho, Felix Fernandes Torres, Oporto.—Macaroni. 658

926 Rodrigues, Jose Galhardo, Oporto.—Macaroni. 658

928 Lemos, Francisco Ferreira de, Oporto.
a Macaroni. 658
b Refined sugar. 659

929 Manso, Jose Marques, S. Bartholomeu, Coimbra.—Orgeat syrup. 659

930 Madeira Sugar Manufacturing Co., Funchal, Madeira.
a Sugar. 659
b Molasses brandy. 660

931 Silva, Francisco da, Chamusca, Santarem.—Red wine. 660

931*a* Nascimento, Manuel Antonio, Ponta Delgada.—Samples of liquors. 660

932 Amaral, Antonio da Costa Correa, Santa Comba Dao, Viseu.—Red wine. 660

933 Araujo, Joaquim Cardoso de, Oliveira de Bairro.—Red wine. 660

934 Affonso, Domingos, Arialva, Lisbon.—Wines and vinegar. 660

935 Almeida, Francisco Manuel de, Serpa, Beja.—White wine. 660

936 Aguilar, jr., Bernardo Teixeira de, Lisbon.—Red and white wine. 660

938 Joao Bento, Valle Passos, Villa Real.—Red wine. 660

939 Allen, George, & Co., Lisbon.—Port wine. 660

940 Gama, Manuel Telles da, Lisbon.—Wines. 660

941 Hunt, Roope, Teage, & Co., Oporto.—Port wine. 660

942 Eca, Jose Ferreira de, Vallongo, Oporto.—Brandy. 660

942*a* Ramalho, Jose Maria, Evora.
a Red wine. 660
b Olive oil. 662

943 Fialho, Jacintho Maria, & Son, Ferreira, Beja.—Red wine. 660

944 Rodrigues Leitao, J. J., & Sons, Funchal, Madeira.—Madeira wine and white grape juice. 660

945 Vasconcellos, Adelino d'Almeida, Nellas, Viseu.—White wine. 660

946 Freire, Bernardo Xavier, Guarda.—White wine. 660

947 Freire, Amancio Antonio de Sequeira, Alemquer, Lisbon.—Wine. 660

948 Gomes, Joao Carlos, Ilhavo, Aveiro.—Brandy. 660

949 Garcia, Antonio Joaquim, Samil, Braganca.—Wine. 660

951 Galvao, Jose Augusto Ferreira Peixoto, Montemor-o-Velho, Coimbra.—Brandy. 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12-14.

Animal and Vegetable Products.

952 Guisado, Joao Baptista Ribeiro, Peniche, Leiria.—Wine and vinegar. 660

953 Galvao, Sabino Jose M. dos Anjos, Azueira, Lisbon.—Wine. 660

954 Galhardo, Francisco Ferreira, Penamacor, Castello Branco.—Red wine. 660

955 Guedes, Antonio Pinto de Carvalho, Nogueira, Villa Real.—Red wine. 660

956 Iglesias, Manuel, Lisbon.—Wine. 660

957 Janes, Jose Alonso, Requengo, Evora.—Red wine. 660

958 Mello, Bento de Castro Coelho e, S. Thiago, Coimbra.—Red wine. 660

959 Monteiro, Manuel F., Portalegre. —Vinegar. 660

961 Esteves, Manuel de Miranda, Celorico, Guarda.—Red wine. 660

962 Infante, Joao Maria de Magalhaes, Cantanhede, Coimbra.—White wine, brandy, and vinegar. 660

963 Esteves, Joao Manuel, Gondomil, Vianna do Castello.—Wine. 660

964 Kebe, E., & Co., Oporto.—Port wine. 660

965 Drach, Jose Ribeiro Guimaraes, Abrantes, Santarem.—White wine. 660

966 Franqueira, Romao, Fontelonga, Braganca.—Brandy. 660

967 Ferro, Narcizo Teixeira Martins, Oporto.—Wine. 660

968 Ferreira & Dourado, Oporto.—Port wine. 660

969 Cabral, Paes F., & Sons, Sernache, Viseu.—Wine. 660

970 Ferreira, Antonia Adelaide, Godim, Villa Real.—Wine. 660

971 Fortes, Jose Maria, Santar, Viseu. —Wines. 660

972 Faria, M. A. P. Ramos, Colorico de Basto, Braganca.—Wine. 660

973 Freitas, Domingos Antonio de, Ameias, Coimbra.—Wine. 660

974 Fonseca, Joaquim Apolinario, Christello Couvo, Vianna de Castello.—Wine. 660

975 Ferreira, Jose Joaquim Gomes, Castanheiro, Braganca.—Wine. 660

976 Ferreira, Jose Mendes, Lamego, Viseu.—Wine. 660

977 Feijo, Anselmo Guilherme Borges, Godim, Villa Real.—Wine. 660

978 Ribas, Limas, Guarda.—White and red wines. 660

979 Fonseca, Bernardo da Silveira Pinto da, Varzea de Abrunhaes, Viseu.—Wine. 660

980 Fonseca, Themudo de Magelhaes da, Lamego.—Wine. 660

981 Fragozo, Jose Maria, Chamusca, Santarem.—Wine. 660

982 Fialho, Francisco Antonio, Aldeia do Mato, Evora.—Red wine. 660

983 Figueiredo, Antonio Joaquim Marques, Villa Nova de Reguengo, Evora.—Red wine. 660

984 Falcao, Jose Maria Fernandez, Cadafais, Lisbon.—Wine. 660

985 Fonseca, Jose Maria da, Lisbon.—Wine and cognac. 660

986 Franco, Manuel Antunes, Cortegana, Lisbon.—Red wine. 660

987 Ferrari, Gustavo, Lisbon.—Wine. 660

988 Falcao, Francisco Paes de Mattos, Bringel, Beja.—Wine and vinegar. 660

989 Ferreira, Joaquim Ignacio, Lisbon. —Wine. 660

998 Duarte, Julio Cesario Ferreira, Arcos, Aveiro.—Wine. 660

999 Dias, Jose da Fonseca, Oliveira do Bairro, Aveiro.—White wine. 660

1000 Deus, Joao Rodrigues de, Torres Novas, Santarem.—Wine. 660

1001 Dias, Daniel Jose Ferreira, Torres Novas, Santarem.—Wine. 660

1002 Duarte, Jose Baptista, Castello de Vide, Portalegre.—Wine. 660

1003 Doria, Jose, Beja.—Wine. 660

1004 Doria, B., Covilha, Castello Branco.—Wine. 660

1005 Dejante & Co., Bom Successo, Lisbon.—Wine. 660

1006 Coelho, jr., Antonio Ferraz, Caldas da Rainha, Leiria.—White wine. 660

1007 Cardoso, Manuel Pedro, Sobral de Monte Agraco, Lisbon.—Wine. 660

1008 Campos, Antonio Joaquim Potes, Evora.—Red wine. 660

1009 Castilho, Antonio de, Villa Soeiro, Guarda.—Red wine. 660

1010 Costa, Francisco, Collares, Lisbon.—Wine. 660

1011 Dias, Manuel Ignacio, Goes, Coimbra.—Vinegar. 660

1012 Duraes, Luis Antonio, Parada, Viseu.—Wine. 660

1013 Dow & Co., Oporto.—Port wine. 660

1014 Frexedas, Joao Felix de Faria, Castello de Vide, Portalegre.—Wine. 660

1015 Fernandes, Antonio Vicente d'Almeida, Benavente, Santarem.—Wines. 660

1016 Figueira, Jose Ricardo de Carvalho, Peniche, Leiria.—Wine. 660

1017 Fernandes, Joao Salvino d'Almeida, Benavente, Santarem.—Wine. 660

1018 Ferraz & Choque, Lisbon.—Wine. 660

1019 Faria, Simao Paes de, Torres Novas, Santarem.—Wine and brandy. 660

1020 Falcao, Joao de Souza, Alpiarca, Santarem.—Wine and brandy. 660

1021 Ferreira, Francisco de Souza, Rio Maior, Santarem.—White wine. 660

1022 Climaco, jr., Joao, Matacaes, Lisbon.—Red wine. 660

1023 Costa, Joao Victorino Pereira da, Torres Vedras, Lisbon.—White wine. 660

1024 Torre Novas, Count of, Lisbon.—Wine. 660

1025 Carneiro, Antonio Soares, Lagoa, Faro.—Red wine. 660

1026 Caldeira, Ricardo Jose, Alegrete, Portalegre.—Wine. 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Animal and Vegetable Products.

1027 Camara, Jose Maria Figueiredo Cabral da, Otta, Lisbon.—Wine. 660

1028 Alcacovas, Count of, Paco d'Arcos, Lisbon.—Wine. 660

1029 Cunha, Gregorio da, Olhalvo, Lisbon.—Wine. 660

1030 Garcia, Pedro de Souza, Estremoz, Evora.—Wine and brandy. 660

1031 Gomes, Jose.—Brandy. 660

1032 Guapo, Jose Daniel, Portalegre.—Wines. 660

1033 Godinho, Francisco, Reguengo, Evora.—Wines. 660

1034 Jansen, J. H., & Co., Lisbon.—Beer, and ginger beer. 660

1035 Kopke & Co., Massarellos, Oporto.—Wines. 660

1036 Rodrigues, J. J. Leitao, & Sons, Funchal, Madeira.—Madeira wine. 660

1037 Jacintho Maria Fialho & Son, Ferreira, Beja.—Red wine. 660

1039 Coelho, Luis Pires, Sardoal, Santarem. 660

1040 Cortez, Benedicto, Celorico, Guarda.—Red wine. 660

1041 Calleya, Cypriano Ribeiro, Lisbon.—Wine. 660

1042 Costa, Agostinho N. d'Oliveira, Villa Franca de Xira, Lisbon.—Wine. 660

1043 Castello, Lucas da Silva Cardozo, Campo Grande, Lisbon.—Wine. 660

1044 Costa, Joao Cezario, Evora.—Red wine. 660

1045 Castello Branco, D. Joaquina Ferrao, Lisbon.—Wine. 660

1046 Carvalho, Jose Avelino N. de Carvalho, Torres Vedras, Lisbon.—Red wine. 660

1047 Brito, Augusto Pereira, Torres Novas, Santarem.—Red and white wine and brandy. 660

1048 Bexiga, Antonio Soares, Torres Novas, Santarem.—Brandy. 660

1049 Bivar, Jeronymo d'Almeida Coelho de, Portimao, Faro.—Red wine. 660

1050 Bivar, Jeronymo, Faro.—Red and white wine. 660

1051 Borges, Jose, Corroados, Santarem.—Red and white wine. 660

1052 Bello, Francisco Serrianno Carvilho, Castello de Vide, Portalegre.—White and red wine. 660

1053 Baracho, Jose de Sousa, Torres Novas, Santarem.—Red wine. 660

1054 Cordes, Balthasar, Barcarena, Lisbon.—Red and white wine. 660

1055 Carvalho, Joaquim Freire de, Villa de Frades, Beja.—Red and white wine. 660

1056 Aragao, Francisco de Pina, Linhares, Guarda.—White and red wine. 660

1057 Abreu, Antonio de, Olhalvo, Lisbon.—Wine. 660

1058 Abreu, Francisco Antonio Maxino, Azambuja.—Wine. 660

1059 Azevedo, Manuel Rodrigues de, Benavente, Lisbon.—Wine. 660

1060 Branco, Joao Vicente, Massarellos, Oporto.—Gin. 660

1061 Barros, Antonio Manuel Ferreira, Ucanha, Viseu.—Brandy. 660

1062 Barao de Nellas, Nellas, Viseu.—Wine. 660

1063 Borga, Francisco Maximino, Villa Nova de Ourem, Santarem.—Red and white wine. 660

1064 Batalhos, Jose dos, Prazeres, Cartaxo, Santarem.—Red and white wine. 660

1065 Pereira, Manuel Augusto, Lisbon.—Red and white wine. 660

1066 Peixoto, Antonio Jose da Cunha A., Ohallo, Lisbon.—Wine. 660

1067 Rocha, Jose Alexandre da, Valle de Prazeres, Castello Branco.—Red wine. 660

1068 Pinheiro, Joaquim Garcia, Villa Nova, Reguengo, Evora.—Red wine. 660

1069 Prego, Ezequiel de Paula Sa, Alemquer, Lisbon.—White and red wine. 660

1070 Affonso, Joao Hilario, Redondo, Evora.—Wine and brandy. 660

1072 Alvares, Sabastido, Borba, Evora.—Red wine. 660

1073 Azeveda, Manuel Rodrigues de, Bucellas, Lisbon.—White wine. 660

1074 Assis, Domingos Francisco de, Alhandra, Lisbon.—Red wine. 660

1075 Barbosa, Manuel Paes Ferrao, Povoa de Midoes, Coimbra.—Red wine. 660

1076 Baiza, Miguel de Sousa, Sanfins, Villa Real.—Wine, muscadine wine. 660

1077 Ramalho, Esteves Goncalves, Villa Nova de Reguengo, Evora.—Red wine. 660

1078 Reixo, Jose Antonio Nunes, Villacosa.—White wine. 660

1079 Silva & Cosens, Oporto.—Port wine. 660

1080 Soares, Antonio, Carrazede d'Anciaes, Braganca.—Vinegar. 660

1081 Sousa, Bernardino Jose de Mello, Penafiel, Oporto.—Vinegar. 660

1082 Pimenta, Jose Maria, Dantas, Torres Novas.—Wine. 660

1083 Pereira, Candido Manuel, Lavradio, Lisbon.—Wine. 660

1084 Ramalho, Antonio Jose, Reguengo, Evora.—White wine. 660

1085 Pinheiro, Jose, Azambujo, Lisbon.—Red and white wine. 660

1086 Ferreira, Jose Henriques, Lisbon.—Red wine. 660

1087 Fragoso, jr., Luis Antonio, Ferreira, Cuba.—Wine. 660

1088 Figueira, Boaventura da Piedade, Cuba, Beja.—White wine. 660

1089 Fialho, Francisco d'Abreu, Portimao, Faro.—Red wine. 660

1090 Gonsalves, Jose dos Santos, Taboa, Coimbra.—Red wine. 660

1091 Fragoso, Manuel Figueira Sonto Mayor, Vidigueira, Beja.—Wines. 660

1092 Guerra, Jose Ignacio Pinto, Miranda do Douro, Braganca.—Wine. 660

1093 Guerra, Francisco Aranches do Amaral, Coimbra.—Wine and vinegar. 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12-14.

1094 Fora, Jose Augusto dos Santos, Figueira da Foz, Coimbra.—Wine. 660

1095 Faria, Francisca Albertina de, Rates, Oporto.—Wine. 660

1096 Fonseca, Manuel Coelho da, Oliveira do Hospital, Coimbra.—Wine. 660

1097 Fonsecca, Francisco Maximo da, Sontello, Viseu.—Wine. 660

1098 Figueiredo, Manuel, Gonsalves, Aveiro.—Wine. 660

1099 Ferreira, Adriano Baptista, Vaccarica, Aveiro.—White wine. 660

1100 Freire, Joao Pereira, Penafiel, Oporto.—Wine. 660

1101 Falcao, Maria Miguelma, Miranda do Corvo, Coimbra.—Brandy. 660

1102 Bassoa, Jose Luis de, S. Momcede, Vianna do Castello.—Wine and brandy. 660

1103 Brandao, Francisco Antonio, Reboreda, Vianna.—White wine. 660

1104 Brito, J. F. L. Costa, Parada, Viseu.—White wine. 660

1105 Barreira, Antonio, jr., Alfandega da Fe, Braganca.—Red wine. 660

1106 Boto, Joao de Sousa Dounas, Ervedosa, Viseu.—Red wine. 660

1107 Brandao, Augusto Ferreira, Vaccarica, Aveiro.—White wine. 660

1108 Bernardo Augusto Lopes & Co., Figueira da Fox, Coimbra.—Red wine. 660

1109 Barao do Calvario, Penafiel, Oporto.—Wines. 660

1110 Barao, Jose Correa de, Sabrosa, Villa Real.—Red wine. 660

1111 Lopes, Jacintho, Elvas, Portalegre.—Red and white wine. 660

1112 Lima, Carlos Joas Ribeiro, Melgaco, Vianna do Castello.—Wine. 660

1113 Lima, Joao Jose Xavier de, Vill' Alva, Beja.—White wine. 660

1114 Lisbao, Antonio da Silva, Penafiel, Oporto.—Wine. 660

1115 Laranja, Manuel Duarte, Coruche, Santarem.—White wine. 660

1116 Leite, Francisco de Paula, Alcacer do Sal, Lisbon.—Wines. 660

1117 Leal, Francisco da Costa, Arneiro, Lisbon.—Red wine. 660

1118 Oliveira Soares, Eduardo, Evora.—Red wine. 660

1119 Bintrago, Jose Carniero d'Almeida de, Tuscifal, Lisbon.—Red wine. 660

1120 Silva, Daniel Pereira da, Celorico, Guarda.—Wines. 660

1121 Silveira, Joao Vicente da, Abrigada, Lisbon.—Wines. 660

1122 Silva, Jose Gomes da, Collares, Lisbon.—Wine. 660

1123 Souza, Joao Candido de Castro e, Beja.—White wine. 660

1124 Souza, Jose Maximo Coelho J., Guarda.—Red wine. 660

1125 Silva, Antonio Martins da, Redondo, Evora.—Red wine. 660

1126 Sereto, Domingos Francisco, Villa Nova de Reguengos, Evora.—Red wine. 660

1127 Silva, A. Augusto da, Lisbon.—Wine. 660

1128 Salgado, Antonio Lopes Vidigal, Coruche, Santarem.—Red wine. 660

1129 Simoes, Francisco, Villa Soeiro, Guarda.—Red wine. 660

1130 Sa, Antonio Manuel da Cunha e, Torre de Ervedal, Leiria.—Wine. 660

1131 Souza, Joaquim da Silva, Ribeira de Baixo, Leiria.—Brandy. 660

1132 Silva, Francisco Jose de Bastos e, Torres Vedras, Lisbon.—Wines. 660

1133 Santos, Joao Bernardo dos, Lagoa, Faro.—Wine. 660

1134 Souza, Francisco Jose de, Labrugeira, Lisbon.—Red wine. 660

1135 Silva, Ernesto de Mendonca e, Abrigada, Lisbon.—Wines. 660

1136 Silva, Antonio Pires da, Villa Franca de Xira, Lisbon.—Wines. 660

1137 Ozorio, Jose Augusto de Sa Pereira, Bretiande, Viseu.—Red wine. 660

1138 Ozorio, Antonio Perfeito Pereira Pinto, Cambres, Viseu.—Wine. 660

1139 Oliveira, Domingos Carneiro de, Agrella, Porto.—Wine. 660

1140 Nunes, Jose Cabrita, Lagoa, Faro.—Red wine. 660

1141 Outeiro, Viscount of, Fundo, Castello Branco.—Red wine. 660

1142 Vasconcellos, Joaquim Guilherme de, Elvas, Portalegre.—Red and white wine. 660

1143 Silva, Francisco Candido da, Torres Novas.—Wine. 660

1144 Silveira, Joao Vicente da, Abrigada, Lisbon.—Wine. 660

1146 Vasconcellos, Antonio de, Villa Nova, Vidgueira, Beja.—White wine. 660

1147 Vilhena, Agostinho de, S. Thiago, Lisbon.—Red wine. 660

1148 Esperanca, Viscount of, Cuba, Beja.—Red and white wine and vinegar. 660

1149 Nogueira, Henrique de Sa, Portalegre.—Red wine. 660

1150 Nascimento, Manuel Antonio do, Ponta Delgada, Azores.—Liquors, brandy, cognac. 660

1151 Oliveira, Jose Bernardo de, Mondim de Basto, Villa Real.—Brandy. 660

1152 Oliveira, Antonio Simoes de, Moluido, Viseu.—Wine. 660

1153 Offley, Cramp, & Forresters, Oporto.—Wine. 660

1154 Vasconcellos, Adelino d'Almeida, Nellas, Viseu.—White wine. 660

1155 Serrado, Viscount of, Viseu.—Wine. 660

1156 Villafanha, Antonio de, Tondella, Viseu.—Red and white wine. 660

1157 Valle, Jose de Seixas do, Bassar, Viseu.—Wine. 660

1158 Veiga, Ricardo Antonio da, Povoa de Midoes, Coimbra.—Red wine. 660

1159 S. Thome, Viscount of, Soure, Coimbra.—Red wine. 660

1160 Valle, Manuel de Sousa Dias, Oporto.—Wine. 660

1161 Vieira, Venancio Dias de Figueiredo, Eiro, Aveiro.—Wine. 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Animal and Vegetable Products.

1162 Moidnenta da Beira, Viscount of, Viseu.—Red wine. 66o

1163 Viuva Pinto, & Son, Lisbon.—Red and white wine. 66o

1164 Viuva, Pevelin, & Sons, Torres Vedras, Lisbon.—Red and white wine. 66o

1165 Welsh Brothers, Funchal, Madeira.—Madeira wines, grape juice, etc. 66o

1166 Abrigada, Viscount of, Lisbon.—Muscatel and other wines. 66o

1167 Mossamedes, Viscount of, Bemfica, Lisbon.—Wine. 66o

1168 Carnide, Viscount of, Carnide, Lisbon.—Red and white wine. 66o

1169 Velloso, Antonio Guedes, Cambres, Setubal, Lisbon.—Red wine. 66o

1170 Vilhena, Barbosa Arthur Peres de, Cartaxo, Guarda.—Red wine. 66o

1171 Sagiosa, Viscountess of, Sagiosa, Guarda.—White wine. 66o

1172 Nunes, Jose Jacintho, Grandola, Lisbon.—Wine. 66o

1173 Nobre, Manuel de Barros, Tavora, Viseu.—Red wine. 66o

1174 Neves, Fortunato Vieira das, Taboa, Coimbra.—White wine. 66o

1175 Vas Freire, Jose Sebastiao Torres, Evora.—Red and white wine. 66o

1176 Pereira, Widow Theotonio, & Sons, Lisbon.—White and red wine. 66o

1177 Velho, Francisco da Rosa, Evora.—Red and white wine. 66o

1178 Formosinho, Widow of Joao Martins, Lagoa, Faro.—Wine. 66o

1179 Velles, Luis Nunes de, Portalegre.—Brandy. 66o

1180 Judice, A. J., Widow of, Mexilhoeira, Faro.—Wine. 66o

1181 Menezes, Jose Maria da Silveira, Borba.—White wine. 66o

1182 Mazziotti, Antonio Maria Dias P. Chaves, Collares, Lisbon.—White and red wine. 66o

1183 Machado, Pedro Xavier, Portalegre.—White wine. 66o

1184 Martins, Miguel Castro, Montargil, Portalegre.—Wines. 66o

1185 Mattos, Bento F. M., Mondim de Basto, Villa Real.—Wine. 66o

1186 Lisboa, Luis Emilio, Vieira.—Wine. 66o

1187 Neves, Jose Eloy das, Cadaval, Lisbon.—White and red wine, and brandy. 66o

1188 Natividade, Jose Gonzalves, Constanca, Santarem.—White wine. 66o

1189 Lobo, Francisco Teixeira, Sabrosa, Villa Real.—Muscadine wine. 66o

1190 Lima, Jose Duarte, Cartaxo, Santarem.—Red and white wine, brandy. 66o

1191 Mello, Hygino Otto de Queiros, Laniego, Viseu.—Red wine. 66o

1192 Lebre, Manuel Ferreira, Anadia, Aveiro.—Red wine. 66o

1193 Lemos, Alexandre Maria de, Lamego, Viseu.—Red wine. 66o

1194 Montes, Jose Nunes Moraes, Castello Branco.—Red wine. 66o

1195 Martins, Benedicto Matheus, Elvas, Portalegre.—Wine. 66o

1196 Macedo, Luis A. d'A. Estremos, Evora.—Red wine. 66o

1197 Macedo, Camillo de jr., Peso da Regoa, Villa Real.—Wines and brandy. 66o

1198 Magalhaes, Luis Francisco da Silva, Villarinho de S. Romao, Villa Real.—Red wine. 66o

1199 Leitao, Alipio, Penacova, Coimbra.—Red wine and vinegar. 66o

1200 Meirelles, Antonio de Chaves, Povoa de Midoes, Coimbra.—Red wine. 66o

1201 Lima, Jose Duarte, Cartaxo, Lisbon.—Wine. 66o

1202 Moraes, Jose Alves de, Vinhaes, Braganza.—Wine. 66o

1203 Madeira, Jose, Povoa de Midoes, Coimbra.—Red wine. 66o

1204 Leite, Francisco de Moraes, Villa Flor, Braganza.—Wine and vinegar. 66o

1205 Leite, Guilherme da Costa, Santo Thirso, Porto.—Wine. 66o

1206 Oliveira, Augusto Jose de, Lisbon.—Red wine. 66o

1207 Oliveira, Jose Vaz Rato de, Alter do Chao, Portalegre.—Brandy and vinegar. 66o

1208 Ornellas, A. de, Funchal, Madeira.—Madeira wine. 66o

1209 Magalhaes, Joao Guedes de.—Red wine. 66o

1210 Moraes, Joaquim Claudino de, Regoa, Villa Real.—Red wine. 66o

1211 Monteiro, Joaquim Soares, Mesquinhata, Oporto.—Wine. 66o

1212 Magalhaes, Roberto Augusto Pinto de, Valle de Mendis, Villa Real.—Red wine. 66o

1213 Motta, Luiz Antonio, Ferreira da Andraes, Villa Real.—Wines. 66o

1214 Mourao, Luis Teixeira, Cazal de Loivos, Villa Real.—Red wine. 66o

1215 Marques, Joao Antonio de Meirelles, Villa Real.—Red wine. 66o

1216 Monteiro, Jose Justino Teixeira, Covas do Douro, Villa Real.—Red wine. 66o

1217 Mello, Joao, C. da Rosa Malheiro, Candedo, Villa Real.—White wine, brandy. 66o

1218 Matheus, Jose Paulino, S. Miguel de Lobirgo, Villa Real.—Wine. 66o

1219 Lobo, Nicolau Joaquim Salles, Evora.—Red wine, vinegar. 66o

1220 Lopes, Jose Ramos, Airo, Braga.—Wine. 66o

1221 Meirelles, Antonio Nunes de Chaves, Povoa de Midoes, Coimbra.—Red wine. 66o

1222 Miranda, Jose Victorino de, Mataeaes, Lisbon.—Red wine. 66o

1223 Pinto, Joao Adriano, Alfandega da Fé, Braganza.—Brandy. 66o

1224 Pascoal, Otero, Oporto.—Beer. 66o

1225 Macedo, Antonio Luis de, Arruda dos Vinhos, Lisbon.—Red wine. 66o

1226 Martins, Luis Antonio, Torres Vedras, Lisbon.—Wine. 66o

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14

Animal and Vegetable Products.

1227 Moniz, Antonio Bernardino da Fonseca, Barocal, Guarda.—Wine. 660

1228 Madeira, Alexandre Jose, Candedo, Villa Real.—Wine. 660

1229 Monteiro, Abilio Affonso da Silva, Ventosa do Bairro, Aveiro.—Red wine. 660

1230 Mello, Antonio Maria de, Miranda do Corvo, Coimbra.—Red wine. 660

1231 Marques Estevao Jose, Aldeia de Mato, Evora.—White and red wine. 660

1232 Marques Maria Jose Perpetua, Redondo, Evora.—Red wine. 660

1233 Pavao, Antonio Augusto Gonsalves, Villa Real.—Wine. 660

1234 Pinheiro, Custodio Jose, Valverde, Villa Real.—Wine. 660

1235 Moura, Christiano Augusto da Silva, Midoes, Coimbra.—Red wine. 660

1236 Moraes & Mouro, Figueira, Coimbra.—Wine. 660

1237 Lima, Antonio Joaquim Fernandes, Villa Nova da Cerveira, Vianna do Castello.—Wine. 660

1238 Marques, Estevao Jose, Evora.—Brandy. 660

1239 Miranda, Felix Honorio Gomes de, Torres Vedras, Lisbon.—Red and white wine. 660

1240 Lima, Jose Duarte de, Cartaxo, Santarem.—Wine, vinegar. 660

1241 Leito, Manuel Pinto, Fontes, Villa Real.—Wine. 660

1242 Lago, Francisco d'Assis Pereira do, Arcos, Braganca.—Red wine. 660

1243 Mattos, Joao Chrisostomo de Carvalho, Villarouco, Viseu.—Red wine. 660

1244 Levita, Joaquim Fortunato, Portalegre.—Brandy. 660

1245 Lopes, Manuel Joao, Fuseta, Faro.—Red wine. 660

1246 Negreiros, Bento Antonio, Trigo de Mirandella, Braganca.—Red wine. 660

1247 Napoles, Miguel Tudella de Souza, Castelloes, Viseu.—White wine. 660

1248 Lima, Antonio dos Santos, Pavoa de Midoes, Coimbra.—Brandy. 660

1249 Leitao, A. Baptista Covilha, Castello Branco.—Red wine. 660

1250 Lopes, Antonio Camillo da Silva, Coruche, Santarem.—Wine. 660

1251 Lopes, Jose Olaia, Castello Branco.—Wines. 660

1252 Lobo, Bernardino Vas, Celorico de Basto, Braga.—Wine. 660

1253 Lopes, Joao da Cunha, Silvares, Viseu.—Wine. 660

1254 Lobo, Jose Nogueira Pereira, Ranhudos, Viseu.—Wine. 660

1255 Leao, Manuel da Cunha, Sobreira, Oporto.—Corkwood and corks. 600

1256 Lima, Joao Ferreira, Braganza.—Wine. 660

1257 Magalhaes, Francisco Jose, Portalegre.—Red wine. 660

1258 Motta, Ranulfo Antonio, Portimao, Faro.—Red and white wine. 660

1259 Mello, Miguel Antonio de Sousa, Villa Franca de Xira, Lisbon.—Red wine. 660

1260 Moita, Antonio F. da Silva, Torres Novas, Santarem.—Wines. 660

1261 Jansen, J. H., & Co., Lisbon.—Beer and ginger beer. 660

1262 Kopke & Co., Massarellos, Oporto.—Port wine and muscadine wine. 660

1263 Leacock & Co., Funchal, Madeira.—Wine. 660

1264 Morte Certa, Antonio Pedro Cardoso, Alcacer do Sal, Lisbon.—Wine. 660

1265 Louro, Francisco Rico, Aldeia de Matto, Evora.—Red wine. 660

1266 Mello, Jose de, Thomar, Santarem.—Red and white wine. 660

1267 Moraes, Josè Correa Pinto de, Constanca, Santarem.—Red and white wine. 660

1268 Martins, Jose Maria, Setubal, Lisbon.—Wines. 660

1269 Martins, Joao Pedro, Setubal, Lisbon.—Wines. 660

1270 Martel, Joao Campello Trigueiros, Sacavem, Lisbon.—Red and white wine. 660

1271 Mesquita, Antonio da Silva, Cartaxo, Santarem.—Red and white wine. 660

1272 Machado, Thomaz Jose, Lisbon.—Wines. 660

1273 Monteiro, Antonio Manuel, Vill-Alba, Beja.—Red wine. 660

1274 Marquez de Pombal, Oeiras, Lisbon.—White and red wine. 660

1275 Machado, Honorato Jose Torres, Azambuja, Lisbon.—Brandy, wine, and vinegar. 660

1276 Ribeiro, Francisco Maria, Couto de Cima, Viseu.—Wine. 660

1277 Ribeiro, Serafim Garcia, Oliveira do Hospital.—Brandy. 660

1278 Rodrigues, Antonio Caetano, Oporto.—Port wine. 660

1279 Ribeiro, Manuel, Penafiel, Oporto.—Brandy. 660

1280 Rodrigues, Antonio, Eiro, Braganca.—Brandy. 660

1281 Magalhaes, Vicente Xavier, Tavira, Faro.—Red wine. 660

1282 Mendonca, Manuel Marcal, Oelhao, Faro.—Red wine. 660

1283 Mira, Jose Maria de, Vidigueira, Beja.—White wine. 660

1284 Motta, Anacleto da Fonseca, Sardoal, Santarem.—Wine. 660

1285 Moreno, Jose Joaquim, S. Thiago, Lisbon.—Wine. 660

1286 Ribeiro, Jose Joaquim, S. Joao da Pesqueira, Viseu.—Red wine. 660

1287 Rego, Manuel Diogo, Moncorvo, Braganca.—Red wine. 660

1288 Camacho, Henrique Jose Maria, Funchal, Madeira.—Superior reserve wines, and other qualities. 660

1289 Creswell & Co., Lisbon.—Red wine. 660

1290 Coutinho, Joaquim Jose, Alpiarca, Santarem.—Red and white wine and brandy. 660

1291 Carneiro, Joao Bento Gil, Azambuja.—Red wine. 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14

Animal and Vegetable Products.

1292 Corte Real, Antonio Freire, Valle de Prazeres, Castello Branco.—Red wine and brandy. 66o

1293 Rego, Francisco Maia do, Alfandega da Fé, Braganca.—Red wine. 66o

1294 Roma, J. M. Goncalves, Trovisco, Vianna.—Wine. 66o

1295 Robollo, Domingos Jose, Castello Branco.—Red wine. 66o

1296 Roquette, Jose Ferreira, Salvaterra, Santarem.—Wines. 66o

1297 Ramires, Balthazar Peres, Evora. —Wine and vinegar.

1298 Ramalho, Antonio Pinheiro, Reguengo, Evora.—White wine. 66o

1299 Ramos, Antonio Pedro de Carvalho, Rio Maior, Santarem.—White wine. 66o

1300 Rosa, Jose Maria, Rio Maior, Santarem.—White wine. 66o

1301 Rapozo, Joaquim Nunes Vieira, Coruche, Santarem.—Red wine. 66o

1302 Ribeiro, Joaquim Antonio, Alcacer do Sal, Lisbon.—Red wine. 66o

1303 Rodrigues, Manuel Antonio, Sobreira, Villa Real.—White wine. 66o

1304 Chaves, Jose Luciano Pereira, Carrica, Viseu.—Wine. 66o

1305 Borges de Sousa, Asambuja, Lisbon.—White wine. 66o

1306 Costa, Jose da, Abravezes, Viseu. —Wine. 66o

1307 Bernardo, Vasco, Coruche, Santarem.—Red wine. 66o

1308 Cossart, Gordon, & Co., Madeira. —Madeira wine. 66o

1309 Carvalho, Jose Raymundo Lopes de, Torres Novas, Santarem.—Red wine. 66o

1310 Carnelho, Victorino Antonio do Reis, Anca, Constanhede.—Vinegar. 66o

1311 Carvalho, Francisco Garcia de, Arganil, Coimbra.—Vinegar. 66o

1312 Soeiro, Balthazar Rodrigues, jr., Campo Maior, Portalegre.—Brandy. 66o

1313 Sobrinho, Jose Martins Leitao, Villa de Frades, Beja.—Red wine. 66o

1314 Silva, Antonio Jose da, Salvaterra, Santarem.—Red wine. 66o

1315 Sauvage, C., Vendas Novas, Evora.—Brandy. 66o

1316 Sequeira e Sa, Francisco Theodorico, Vidigueira, Beja.—White wine. 66o

1317 Soure, Joaquim Manuel Soares de, Ferreira, Beja.—Red wine. 66o

1318 Santos, Jose Fogaco de C. e, Aljubere, Lisbon.—Wine. 66o

1319 Silva, Joaquim Jose de Freitas e, Cartaxo, Santarem.—Wines. 66o

1320 Santos, Antonio Vicente dos, Aphandra, Lisbon.—Wines. 66o

1321 Silva, Jose Maria da, Elvas, Portalegre.—Brandy and red wine. 66o

1323 Canto e Castro, Miguel do, Lisbon. —White wine. 66o

1324 Calasons, Jose Dias de S., Gaviao, Portalegre.—Red wine. 66o

1325 Coutinho, Luis da Silva, Cascaes, Lisbon.—White and red wine. 66o

1326 Costa, Antonio Jacome da, Gaviao, Portalegre.—Brandy. 66o

1327 Silva, Jose Gonsalves da, Portalegre.—Red wine and brandy. 66o

1328 Soares, Jose Severino, Ribeira de Santarem.—Wines and alcohol. 66o

1329 Carvalho, Jose Joaquim de, Eremida, Villa Real.—Wine. 66o

1330 Couraca, Jose de Gouveia, Faia, Viseu.—Wine. 66o

1331 Castello Branco, Fernando d'Almeida Loureiro, S. Miguel do Outeiro, Viseu.—Wine. 66o

1332 Carinho, Bartholomeu, Montargil, Portalegre.—Red and white wine. 66o

1333 Caldas, Manuel Duarte Silva, S. Joao Baptista, Santarem.—Red wine. 66o

1334 Couto, Antonio Severino do, Pragança, Lisbon.—Wine. 66o

1335 Castro, Jose d'Almeida Silva e, Miranda do Corvo, Coimbra.—Vinegar. 66o

1336 Carvalho, Ananias Cardoso de, S. Thiago, Viseu.—Wine. 66o

1337 Cabral, Constantino do Valle Coelho, Oporto.—Port wine. 66o

1338 Cabral, Antonio Paes, Senhorim, Viseu.—Wine. 66o

1339 Carvalho, Alonso Pinto Teixeira de Santa Martha de, Penaguiao, Villa Real.—Wine. 66o

1340 Cabrita, Joao Carlos, Cuba, Beja. —Wine. 66o

1341 Cabreira, Antonio, Evora.—Red and white wine and brandy. 66o

1342 Carvalhosa, Jose Felix de Almeida, Ordisqueira, Lisbon.—White wine. 66o

1343 Costa Cabral, Joao Rebello da, Lisbon.—Red and white wine. 66o

1344 Pereira, Antonio d'Almeida, S. Pedro de Franca, Viseu.—Wine. 66o

1345 Pecanha, Jose Pereira de Castro, Vianna do Castello.—Wine. 66o

1346 Carvalho, Antonio Marques de, Chamusca, Santarem.—White and red wine and brandy. 66o

1347 Caravalho, Joao Affonso de, Villa Franca de Xira, Lisbon.—Red and white wine. 66o

1348 Cunha, Joao Augusto da, S. Joas da Ribeira, Santarem.—Red and white wine. 66o

1349 Cardoso, jr., Setubal, Lisbon.—Wines and liquors. 66o

1350 Carvalho, Francisco Jose de, Faro. —Anisette brandy. 66o

1351 Capello, Manuel Joaquim da Silva, Vill' Alva, Beja.—Red wine. 66o

1352 Costa, Joao Maria da, Alhandra, Lisbon.—Red wine. 66o

1353 Costa, Domingos Antonio da, Elvas, Portalegre.—Red and white wine. 66o

1354 Condessa Geraz de Lima, Lisbon. —Wine. 66o

1355 Camara, Tristao Prestrello da, Funchal, Madeira.—Dry Madeira wine. 66o

1356 Claro, Francisco Germano, Lisbon.—Red and white wine. 66o

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12-14.

Animal and Vegetable Products.

1357 Campos, Francisco Ferreira, Rio Maior, Santarem.—Red wine. 660

1358 Cruz, Manuel Mendes da, Lagares, Coimbra.—Wine. 660

1359 Carneiro, Custadio Gil dos Reis, Refojos, Oporto.—Wine. 660

1361 Borges, Candido Marcelino, Torres Novas, Santarem.—Red and white wine. 660

1362 Blanco, Joao Diago, Alvito, Beja. —Red and white wine. 660

1363 Blandy, Carlos R., Funchal.—Madeira wine. 660

1364 Carvalho, Dionisio Antonio N. de, Leniche, Peiria.—Wine and vinegar. 660

1365 Cunha, Alexandre de Sena, Coruche, Santarem.—Red wine. 660

1366 Cabrita, Joao Carlos, Cuba, Beja. —Wines and liquors. 660

1367 Botelho, Antonio da Costa, Santarem.—Wine. 660

1368 Barcellos, Francisco Maria, Torres Vedras, Lisbon.—Red and white wine. 660

1369 Salgueiro, Baroness of, Leiria.—Red wine. 660

1370 Barao de Viamonte, Leiria.—Red wine. 660

1371 Barros e Cunha, Jose de, Torres Vedras, Lisbon.—Wine. 660

1373 Brito, Jose Maria de Barros Carvalhaes, Nisa, Portalegre.—Red wine and brandy. 660

1374 Biker, Antonio Pedro, Faro.—Red wine. 660

1375 Cerveira, Jose Rodrigues, Anadia, Aveiro.—Red and white wine. 660

1376 Castro, Damiao Martins, S. Pedro da Cova, Porto.—Red wine. 660

1377 Coutinho, Fernando Affonso d'Almeida, Cantanhede, Coimbra.—Red and muscadine wine. 660

1378 Canella, Agostinho, Arcos, Aveiro.—Red and white wine. 660

1379 Campos, Antonio de Freitas, Arcos, Aveiro.—Red wine. 660

1380 Costa Pereira & Co., Figueira, Coimbra.—Red and white wine. 660

1381 Castanheira, Jose Rodrigues Mendes, Azere, Coimbra.—Wine. 660

1382 Caceres, Francisco Albuquerque Mello Pereira, Pereira, Oporto.—White and red wine. 660

1383 Chaves, Antonio Joaquim, Sta. Martha de Penaguiao, Villa Real.—Wine. 660

1384 Coutinho, Jose Maria d'Almeida, Cidadelhe, Villa Real.—Wine. 660

1385 Castro, Luis de, Valle de Passos, Villa Real.—Red wine. 660

1386 Cruz, Joaquim Rodrigues, Mesao Frio, Villa Real.—White wine. 660

1387 Cancella, Francisco, Arcos, Aveiro.—Red and white wine. 660

1388 Cunha, Antonio Duarte da, Freixinho, Viseu.—Red wine. 660

1389 Costa, Victorino Alves da, Arumamar, Viseu.—Wine. 660

1390 Cardoso, Joaquim Maria do Amaral, Tamega, Aveiro.—Red and white wine. 660

1391 Correa, Jose Augusto, Santa Comba Dao, Viseu.—Red wine. 660

1392 Cardozo, Antonio, Abreiro, Braganca.—Red wine. 660

1393 Castro, Ayres de S. Mariz e, Carraseda d'Anciaes, Braganca.—Wine. 660

1394 Castro, Jose de, Braganca.—Muscadine and other wines. 660

1395 Commenda, Elias Rebeiro, Villa Flor, Braganca.—Red wine. 660

1396 Cunha, Bernardino Alves Teixeira, Celorico de Basto, Braga.—Wine. 660

1397 Cunto, Manuel d'Aguino Alves do, Nogueira, Villa Real.—Wine. 660

1398 Castro, Antonio Augusto d'Almeida, Mesao, Villa Real.—Wine. 660

1399 Bairrada Commercial Wine Co., Vaccarica, Aveiro.—Red and white wine. 660

1400 Camello, Joaquim Augusto da Silveira, Penafiel, Oporto.—Wine and cider. 660

1401 Coutinho, Antonio Joaquim de Moura, Onteiro, Braga.—Wine. 660

1402 Casa de Pasos, Barcellos.—Wine. 660

1403 Carvalho, Jose Velloso Pinto de, Lamego, Visen.—White wine. 660

1404 Cruz, Jose Lopes da, Nogueira, Villa Real.—Red wine. 660

1405 Costa, Jose Joaquim Pinto da, Nogueira, Villa Real.—Red wine. 660

1406 Cordeiro, Antonio Montes, Godim, Villa Real.—Red wine. 660

1407 Champalimaud, Antonio Montes, Godim, Villa Real.—Red wine. 660

1408 Chaves, Manuel Jose da Cunha, Valle Passos, Villa Real.—Wine. 660

1409 Asevedo, Jose Ferreira da Silva, Rates, Oporto.—Red wine. 660

1410 Alexandre, Joaquim Peres de, Taboa, Coimbra.—Red wine. 660

1411 Alexandre, Manuel, Taboa, Coimbra.—Red wine. 660

1412 Abreu, Francisco Jose de, Lamego, Viseu.—Red wine. 660

1413 Costa, Francisco Bento da, Gomiei, Viseu.—Wine. 660

1414 Contada, Jose Domingues, Carapecos, Braga.—Wine. 660

1415 Carvalho, Jose Teixeira da, Cavez, Braga.—Wine. 660

1416 Castello Branco, Manuel Antonio Pereira, Abraveses, Viseu.—Wine. 660

1417 Aragao, Alexandre de, Villa Flor, Braganca.—White and red wine. 660

1418 Abreiro, Joao Vaz de, Mirandella, Braganca.—Wine. 660

1419 Almeida, Ignacio Bernardino de, Alfondega da Fé, Braganca.—White wine. 660

1420 Asevedo, Jose de, Villa Flor, Braganca.—White wine. 660

1421 Andrade, Basilio Augusto Xavier de, Coimbra.—Red and white wines 660

1422 Almeida, Manuel Lourenco, Oporto.—Muscadine wine. 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Animal and Vegetable Products.

1424 Administrative Council of Montenior-o-o-Velho, Montenior-o-Velho, Coimbra.—Vinegar. 660

1425 Alcoforado, Maria H. S., Barcellos, Braga.—Wine. 660

1426 Amaral, Antonio Gomes Silva do, Cima de Villa, Viseu.—Wine. 660

1427 Andrade, Bernardo Antonio da Silva, Cima de Villa, Viseu.—Wine. 660

1428 Almeida, Jose Bernardo de, Lordosa, Viseu.—Wine. 660

1429 Amaral, Leonor Carvalho Fonseca, Mangualde, Viseu.—Wine. 660

1430 Amaral, Bernardo Rodrigues do, Espinho, Viseu.—Wine. 660

1431 Avelino, Joaquim Cumieira, Villa Real.—Bastardo and muscadine wine. 660

1432 Azevedo, Antonio Lopes de Nogueira, Villa Real.—Red and white wine. 660

1433 Pereira, Joaquim J. Peral, Lisbon. —Wines. 660

1434 Aragao, Alexandre A. de Mattos Mascarenhas Vasconcellos, Sebal Grande, Coimbra.—Vinegar. 660

1435 Antonio Nicolau d'Almeida jr., & Bro., Oporto.—Wine, port wine, and brandy. 660

1436 Amaral, Pedro d'Albuquerque Silva, Mangualde, Viseu.—White and red wines. 660

1437 Andressen, J. H., Oporto.—Port wine 660

1438 Rodrigues, Antonio Caetano, & Co., Oporto.—Wines. 660

1439 Alves, Francisco, Passacos, Villa Real.—Wine. 660

1440 Moura, Antonio Gomes de, & Co., Oporto.—Wine and port wine. 660

1442 Sarmento, Bernardo Figueiredo Sepulveda, Santa Justa, Braganca.—Red and white wine. 660

1443 Souza, Joaquim Jose de, Ferreira, Vianna do Castello.—Wine. 660

1444 Silva, Antonio Xavier Torres e, Villa de Caminha.—Wine. 660

1445 Santos, Antonio dos, Povoa de, Lusiannes, Viseu.—Wine. 660

1446 Sampaio, Jose da Cunha, Villa Nova de Famalicao, Braga.—Wines. 660

1447 Souto Maior, Lourenco da Cunha, S. Martinho de Dunna, Braga.—Wine. 660

1448 Sousa, Jose Henriques Coelho de, Refoyos, Braga.—Wine. 660

1449 Paes, Antonio da Silva, Parada, Viseu.—White and red wine 660

1450 Poiares, Antonio Jose da Silva, Contanhede, Coimbra.—Red wine. 660

1451 Pereira de Mello, Antonio Leite, Peral, Lisbon.—Wines. 660

1452 Silva, Antonio Ferreira da, Sabrosa, Villa Real.—White wine. 660

1453 Silva, Antonio da, Nogueira, Villa Real.—Red wine. 660

1454 Sequeira, Luis Clemente de, Ervedosa, Viseu.—Red wine. 660

1455 Souza, Hector de Lemos e, Sangemil, Viseu.—Wine. 660

1456 Soares, Joao Baptista Ribeiro, Lamego, Viseu.—Red and white wine. 660

1457 Sousa, Manuel Jose, Coimbra.—Red wine. 660

1458 Sousa, Julio Cesar, Paradolinho, Villa Real.—Red and white wine 660

1459 Serodio, Jose Antonio Goncalves, Passos, Villa Real.—Wine and brandy. 660

1461 Sandeman & Co., Oporto.—Port wine. 660

1462 Agricultural Society of Oporto, Oporto.—White and red wine 660

1463 Portella, jr., Jose Ferreira, Anadia, Aveiro.—Red wine. 660

1464 Pinto, Antonio Peixoto, Sabrosa, Villa Real.—Wine. 660

1465 Pinto, Manuel Feireira, Cambres, Viseu.—Red wine. 660

1466 Silva, Francisco Pereira da, Carrasede d'Anciaes, Braganca.—Wine. 660

1467 Simoes, Antonio Augusto da Costa, Vaccarica, Aveiro.—White wine. 660

1468 Sarmento, Antonio Ferreira, Vinhaes, Braganca.—Wine. 660

1469 Seabra, Alexandre de, Arcos, Aveiro.—White and red wine. 660

1470 Sobral, Jose Joaquim, Soutello, Viseu.—Muscadine and white wines 660

1471 Sousa, Jose Luis Rodrigues de, Valenca, Vianna do Castello.—Wine. 660

1472 Simoes, Joaquim Antonio, Figueira, Coimbra.—Red and white wine, brandy, vinegar. 660

1473 Salgado Domingos, Carraseda d'Anciaes, Braganca.—Red wine. 660

1474 Pinto Coelho, Carlos Z., Lisbon. —White and red wine. 660

1475 Pereira, Joaquim, Cadaval, Lisbon.—Red wine. 660

1476 Paulo Jorge, Carcavellos, Lisbon. —Red and white wine. 660

1477 Pereira, Antonio Rodrigues, Peniche, Leiria.—Wine and vinegar. 660

1478 Pinheiro, Antonio Joaquim, Pinamacor, Castello Branco.—Red wine. 660

1479 Pimenta, Jacintho Francisco, Ponte Sor, Portalegre.— Red and white wine. 660

1480 Prego, Joaquim Romao Mendes, Reguengo, Evora.—Red wine. 660

1481 Pinheiro, Joaquim Garcia, Reguengo, Evora.—Vinegar. 660

1482 Pinto, Maria Rita Ramos Borges, Folgosa, Viseu.—Red and white wine. 660

1483 Pereira, Adrianno Rodrigues, Anadia, Aveiro.—Red wine. 660

1484 Portella, Jose Ferreira, Anadia, Aveiro.—Wine. 660

1485 Serrado, Viscount of, Viseu.—Wine. 660

1486 Villafanha, Antonio de, Tondella, Viseu.—Red and white wine. 660

1488 Viseu, Henrique Nunes, Santar, Viseu.—Wine. 660

1489 Gomes, Antonio Luis, Valenca, Vianna do Castello.—Wine and brandy 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Animal and Vegetable Products.

1490 Guimaraes, Victorino Barbosa, Penafiel, Oporto.—Wine. 660

1491 Guisado, Joao Baptista Ribeiro, Peniche, Leiria.—Wine and vinegar. 660

1492 Galvao, Sabino Jose M. dos Anjos, Azueira, Lisbon.—Wine. 660

1493 Vasconcellos, Francisco P. Carvalho, Valle Cavez, Braga.—Wine. 660

1495 Vasconcellos, Augusto Cesar Carvalho, Valle Cavez, Braga.—Wine. 660

1496 Vasconcellos, Bento M. Pereira Pita, Monsao, Vianna do Castello.—Wine. 660

1497 Veiga, Jose da Cunha Costa, Povoa de Midoes, Coimbra.—Red wine. 660

1498 Montariol, Viscount of, S. Victor, Braga.—Wine. 660

1499 Vieira, Bernardo de Campos, Taboa, Coimbra.—Red wine. 660

1500 Teixira, Francisco Manuel, Mirandella, Braganca.—Red wine. 660

1502 Teixeira, Jose Luis, Mirandella, Braganca.—Red wine. 660

1503 Teixeira, Joao Firmino, Mirandella, Braganca.—Wine. 660

1504 Themes, Fortunato de Cerqueira, Valdigem, Viseu.—Red wine. 660

1505 Tavares, Jose da Costa Andrade, Alpedrinha, Castello Branco.—Red wine. 660

1506 Tavares, Joao da Silva, Estremos, Evora.—Corkwood. 660

1507 Tavares, Antonio Bernardo Xavier, Portalegre.—Red wine. 660

1508 Torres e Oliveira, Henriqueta Josepha Pereira, Fundao, Castello Branco. —Wine. 660

1509 Tavares, Jose Antonio, Lisbon.—White wine. 660

1510 Telles, Manuel Joaquin, Evora.—Red wine. 660

1511 Themudo, Antonio Dias, Coimbra. —Cognac and liquor. 660

1512 Trigo, Jose Antonio Horta da, Villarica, Braganca.—White wine. 660

1513 Tacho, Jose Maria da Silva, Tragosella, Viseu.—Wine. 660

1514 Teixeira, Joao B. Pacheco, Celorico de Basto, Braga.—Wine. 660

1515 Tavares, Antonio Jose, Covilha, Castello Branco.—Wine and vinegar. 660

1516 Jusarte, Jose Carlos, Parada, Viseu.—White wine. 660

1517 Royal Wine Company of Alto Douro, Oporto.—Vinegar, port wine 1815–1875. 660

1518 Lacerda, Alberto Araujo Figueiro dos, Vinhos, Leiria.—Red wine. 660

1519 Michon & Gussac, Oporto.—Brandy of grains. 660

1520 Madeira, Antonio, Goes, Coimbra. —Brandy. 660

1521 Moreira, Antonio Ignacio, Oporto. —Brandy. 660

1522 Menezes, Jose Rebello Cardoso, Timpeira, Villa Real.—Wine. 660

1523 Machado, Manuel Alves, Celorico de Basto, Braga.—Wine. 660

1524 Magalhaes, Antonio de Barros, Sattam, Viseu.—Wine. 660

1525 Marques, Jacintho, Salgueiros, Viseu.—Red and white wine, brandy. 660

1526 Magalhaes, Manuel Alexandre de, Budiosa, Viseu.—Wine. 660

1527 Machado, Domingas Alves, Celorico de Basto, Braga.—Wine. 660

1528 Moura, Luis Manuel Alves, Celorico de Basto, Braga.—Wine. 660

1529 Moscoso, Simao P. Velho, Monsao, Vianna.—Wine. 660

1530 Moura, Augusto, Celorico de Basto, Braga.—Wine. 660

1531 Moraes, Antonio Carlos, Boelhe, Oporto.—Wine. 660

1532 Moraes, Antonio Fernandes, Abelheira, Vianna do Castello.—Wine. 660

1533 Marques, Jose Parada, jr., Viseu.—Red and white wine. 660

1534 Martins, Manuel Jose, Gondomil, Vianna do Castello.—Wine. 660

1535 Meneses, Manuel Antonio, Horta da Villarica, Braganca.—Wine. 660

1536 Martins, Jose da Veiga, Carrazeda d'Anciaes, Braganza.—Red wine. 660

1537 Magalhaes, Joao da Veiga, Vinhaes, Braganca.—Wine. 660

1538 Moraes, Domingos Alves, Poca, Braganca.—Wine. 660

1539 Miranda, Antonio Bernardino, Horta da Villarica, Braganza.—White wine. 660

1540 Basto, Manuel Jose Teixeira, S. Miguel de Refojo, Braga.
a Wine. 660
b Olive oil. 662

1541 Abecassis Brothers, Lisbon.
a Port wine. 660
b Olive oil. 662

1542 Castro, Luis de Mello T. Soares d'Albegaria, S. Thiago, Coimbra.
a Brandy. 660
b Olive oil. 662

1543 Carvalho, Joao Antonio, Pedrogam, Santarem.
a White wine 660
b Olive oil. 662

1544 Carvalho, Carlos Manuel de, Pedrogam, Santarem.
a White wine. 660
b Olive oil. 662

1545 Caldeira Joaquim de, Albuquerque, Castello Branco.
a Wines. 660
b Olive oil. 662

1546 Pereira, Eduardo Augusto, Meixamil, Oporto.
a Vinegar. 660
b Olive oil. 662

1547 Casqueiro, Jose Maria, Crato, Portalegre.
a Wine. 660
b Olive oil. 662

1548 Conde da Junqueira, Almeirim, Santarem.
a Wines. 660
b Olive oil. 662

1549 Cardoso, Manuel Gualdino, Gameiro, Torres Novas, Santarem
a Brandy and wines 660
b Olive oil. 662

For classes of exhibits indicated by numbers at end of entries, see Classification, pp. 12–14.

Animal and Vegetable Products.

1550 Carvalho, Luis Xavier do Amaral, Rio de Moinho, Viseu.
a Wine. 660
b Olive oil. 662

1551 Albuquerque, Manuel Lopes, Alvito, Braga.—Wine. 660

1552 Abreu, Honorato Jose Marchado, Zibreira, Lisbon.
a Red wine. 660
b Olive oil. 662

1553 Pygnatelli, Jose da Cunha, Guarda.
a Red and white wine. 660
b Olive oil. 662

1554 Ramalho, Domingos Antonio, Falle Redondo, Evora. 660
a Red and white wine and brandy, vinegar. 660
b Olive oil. 662

1555 Abreu, Carlos de Souza Pinto, Valle de Prazeres, Castello Branco.
a Wine. 660
b Olive oil. 662

1557 Antonio Nunes de Souza & Co., Covilha, Castello Branco.
a Wine. 660
b Olive oil. 662

1558 Athayde, Luis da Silva, Leiria.
a Red and white wine and brandy. 660
b Olive oil. 662

1559 Accioli, Joao da Fonseca, Portalegre.
a Vinegar. 660
b Olive oil. 662

1560 Beltraa, Jose de Gouvea de Lucena, Anca, Coimbra.
a Red wine. 660
b Olive oil. 662

1561 Bogalho, Joao Joaquim, Villa Boim.
a Red and white wine. 660
b Olive oil. 662

1562 Durao, Pedro Manuel, Castello de Vide, Portalegre.
a Vinegar. 660
b Olive oil. 662

1563 Caldas, Manuel Duarte de Silva, Cartaxo, Santarem.
a Wine and vinegar. 660
b Olive oil. 662

1564 Carreira, Joaquim de Salles Simoes, Batalha, Leiria.
a Brandy. 660
b Olive oil. 662

1565 Faro, Joaquim de Carvalho Azevedo, Reizende, Viseu.
a Wine. 660
b Olive oil. 662

1566 Guimaraes, Jose Lopes, Coimbra.
a Red wine and brandy. 660
b Olive oil. 662

1567 Falcao, Luis da Costa, Constanca, Santarem.
a Wine. 660
b Olive oil. 662

1568 Franco, Vital Jose Pereira, Guarda.
a Red wine. 660
b Olive oil. 662

1569 Ferreira, Angusto Dias, Santarem.
a Wine. 660
b Olive oil. 662

1570 Franco, Rev., Francisco Guedes, Portalegre.
a Vinegar. 660
b Olive oil. 662

1571 Francioze, Maria do Carmo, Cartaxo, Santarem.
a Vinegar. 660
b Olive oil. 662

1572 Guerra, Joaquim Jose da, Elvas, Portalegre.
a Wine and brandy. 660
b Olive oil. 662

1573 Villarinho, Viscount of, S. Romas, Oporto.
a Muscadine and other wines. 660
b Olive oil. 662

1574 Prime, Viscount of, Viseu.
a Red and white wine. 660
b Olive oil. 662

1575 Jose Ferreira Pinto Basto, Heirs of, Santa Eulalia de Ferreira, Coimbra.
a Red wine. 660
b Olive oil. 662

1576 Joaquin Guilherme de Vasconcellos & Sons, Elvas, Portalegre.
a Vinegar. 660
b Olive oil. 662

1579 Lima, Jorge Abraham d'Almeida, Aldeia de Paio Pires, Lisbon.
a Red and white wine. 660
b Olive oil. 662

1580 Souza d'Alte, Francisco Rapozo de, Lisbon.
a Wines. 660
b Olive oil. 662

1581 Silva, Eliza Ludovina da, Covilha, Castello Branco.
a Wines. 660
b Olive oil. 662

1582 Silva, Manuel Joaquim da, Redondo, Evora.
a Red wine and vinegar. 660
b Olive oil. 662

1583 Souza, Manuel Lopes de, Guarda.
a Wines and vinegar. 660
b Olive oil. 662

1584 Viva, Barreto, Covilha, Castello Branco.
a Red and white wine. 660
b Olive oil. 662

1585 Alcacer, Viscount of Sal, Lisbon.
a Wine. 660
b Olive oil. 662

1586 Oliveira, Rafael Rodrigues de, Torres Novas, Santarem.
a Red wine. 661
b Olive oil. 661

1587 Castello de Borges, Viscount of, Lisbon.
a Wines. 660
b Olive oil. 662

1588 Vinua Jorge & Sons, Parreiras, Santarem.
a Brandy. 660
b Olive oil. 662

1589 Vidal, Antonio Jose Rodrigues, Vaccarica, Aveiro.
a Red and white wine. 660
b Olive oil. 662

1590 Prime, Viscount of, Viseu.
a Red and white wine. 660
b Olive oil. 662

1591 Caevuo, Viscount of, Gaira, Guarda.
a Wine. 660
b Olive oil. 662

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp 12–14.

Animal and Vegetable Products.

1592 Macedo, Joaquim Augusto de Thomar, Santarem.
a Wine. 660
b Olive oil. 662

1593 Esperanca, Viscount of, Jose, Evora.
a Brandy, red wine, and vinegar. 660
b Olive oil. 662

1594 S. Sebastiao, Viscount of, Leiria.
a Brandy. 660
b Olive oil. 662

1595 Mesquita, Pedro Jose de, Sinde, Coimbra.
a White wine, vinegar. 660
b Olive oil. 662

1596 Magalhaes, Francisco T., Sinde, Coimbra.
a White wine. 660
b Olive oil. 662

1597 Oliveira, Verissimo Ferreira A. de, Montalvao, Santarem.
a Red wine, vinegar. 660
b Olive oil. 662

1598 Pedrozo, Maria Jose Lopes, Lavos, Coimbra.
a Wine, brandy, and vinegar. 960
b Olive oil. 662

1599 Lopes, Joaquim Emilio, Leiria.
a Wines and brandy. 662
b Olive oil. 662

1600 Le Cocq, Joao Jose, Castello de Vide, Portalegre.
a Wine. 660
b Olive oil. 662

1601 Larcher, Marcal, Ramiro, Portalegre.
a Brandy. 660
b Olive oil. 662

1602 Levita, Jose Eduardo, Portalegre.
a Vinegar and brandy. 660
b Olive oil. 662

1603 Larcher, Maria Jose, Portalegre.
a Vinegar. 660
b Olive oil. 662

1604 Mendes, Carlos da Costa Pereira, Thomar, Santarem.
a Wine. 660
b Olive oil. 662

1605 Machado, Pedro Xavier, Portalegre.
a Wine, brandy, vinegar. 660
b Olive oil. 662

1606 Moraes, Antonio da Silva, Sardoal, Santarem.
a Wine. 660
b Olive oil. 662

1607 Quintanilha, Francisco, Cuba, Beja.
a White and red wine. 660
b Olive oil. 662

1608 Mattoso, Alfredo de Moura, S. Thiago, Coimbra.
a White wine, brandy. 660
b Olive oil. 662

1609 Rangel, Manuel de Souza, Guilhufe, Oporto.
a Wine. 660
b Olive oil. 662

1610 Rangel, Diogo, Torres Novas, Santarem.
a Alcohol and white wine. 660
b Olive oil. 662

1611 Rego, Antonio Profirio Gomes do. Covilha, Castello Branco.
a Wines. 66
b Olive oil. 662

1612 Reis, Antonio Nunes dos, Turcifal, Lisbon.
a Wines. 660
b Olive oil. 662

1613 Relvas, Carlos, Gollega, Santarem.
a Wine. 660
b Olive oil. 662

1614 Ramos, Antonio Maria Taborda Castello Branco.
a Red wine. 660
b Olive oil. 662

1615 Rodrigues, Joao Antonio, Grandola, Lisbon.
a Wine. 660
b Olive oil. 662

1616 Silva, Francisco Candido da, Torres Novas, Santarem.
a Wine and brandy. 660
b Olive oil. 662

1617 Souza, Pedro Augusto Pereira e Abreu, Santa Marinha, Villa Real.
a Wine. 660
b Olive oil. 662

1618 Sa, Jose Filippe de, Azoia de Baixo, Santarem.
a Wine. 660
b Olive oil. 662

1619 Seixas, Jose Maria Ayres de, Gaviao, Portalegre.
a Wine. 660
b Olive oil. 662

1620 Caires, Manuel A. de Mello Pereira, Penalva do Castello, Viseu.
a Red wine. 660
b Olive oil. 662

1621 Condessa d'Anadia, Santa Clara, Coimbra.
a White and red wine, and vinegar. 660
b Olive oil. 662

1622 Castello Branco, Amelia Pinto de Tavares, Valle de Prareres, Castello Branco.
a White wine. 660
b Olive oil. 662

1623 Castello Branco, Ignacio Cardoso de B. Caldeira, Portalegre.
a Red wine. 660
b Olive oil. 662

1624 Carrilho Bello, Antonio Marcellino, Castello de Vide, Portalegre.
a Red and white wine, and vinegar. 660
b Olive oil. 662

1625 Castello Branco, Amelia Pinto de Tavares, Valle de Prazeres, Castello Branco.
a White wine. 660
b Olive oil. 662

1626 Barao do Salgueiro, Leiria.
a White and red wine. 660
b Olive oil. 662

1627 Britto, Joao de, Lisbon.
a Red and white wine, vinegar. 660
b Biscuits. 661
c Corn flour. 667

1628 Barao de Mogadouro, Freixeas, Guarda.
a Red and white wine. 660
b Olive oil. 662

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Animal and Vegetable Products.

1629 Castro, Miguel Ozorio Cabral de, Santa Clara, Coimbra.
a Red and white wine. 660
b Olive oil. 662

1630 Costeira, Manuel Fernandes, Lamego, Viseu.
a Red wine. 660
b Olive oil. 662

1631 Costa, Lourenco Justiniano da Fonseca, Oliveira do Hospital, Coimbra.
a Wine. 660
b Olive oil. 662

1632 Morao, Maria Emilia d'Almeida, Penamacor, Castello Branco.
a White wine. 660
b Olive oil. 662

1633 Albino Jose de Freitas Almeida & Co., Ega, Coimbra.
a Wines. 660
b Olive oil. 662

1634 Asambuja, Antonio Maria da, Means, Coimbra.
a White wine. 660
b Olive oil. 662

1635 Pontes, Francisco Ferraz Tavares de, Mirando de Corvo, Coimbra.
a Red wine. 660
b Olive oil. 662

1636 Pinto, Antonio Rodrigues, Coimbra.
a Wine and vinegar. 660
b Olive oil. 662

1637 Pinto, Augusto Leal de Gouvea, Miranda do Corvo, Coimbra.
a Red and white wine. 660
b Olive oil. 662

1638 Pereira, Antonio Ignacio, Redondo, Evora.
a Brandy, red wine, vinegar. 660
b Olive oil. 662

1639 Accioli, Joao da Fonseca, Portalegre.
a Vinegar. 660
b Olive oil. 662

1640 Melleiro, Francisco Carmello, Lisbon.—Macaroni. 661

1641 Pinto, Jose Clemente, Sta. Cruz, Coimbra.—Macaroni. 661

1642 Cruz, Jose Francisco da, Coimbra.—Biscuits. 661

1643 Costa, Eduardo Antonio da, Lisbon.—Biscuits. 661

1644 Silva, Eduardo da Conceicao e, Lisbon.—Biscuits. 661

1645 Schurmann, Lisbon.—Biscuits. 661

1646 Silva, Estavao Ribeiro da, Lisbon.—Bread. 661

1647 Aurajo, Antonio Correa de, Coimbra.—Biscuits. 661

1648 Administrator of the Conselho of Guimaraes, Guimaraes, Braga.—Olive oil. 662

1649 Papanca, Manuel Augusto Mendes, Reguengos, Evora.—Olive oil. 662

1650 Pina, Manuel Maria de, Portalegre.—Olive oil. 662

1651 Pereira, Jose Ignacio, Elvas, Portalegre.—Olive oil. 662

1652 Proenca, Francisco Tavares d'Almeida, Castello Branco.—Olive oil. 662

1653 Possidonio, Antonio, Montalvao, Portalegre.—Olive oil. 662

1654 Sobral, Bernardo Moreira Coelho, Parada, Visen.—Olive oil. 662

1655 Almeida, Silva, & Co., Lisbon.—Olive oil. 662

1656 Almeida, Antonio Joaquim de, Villa Nova de Ourem, Santarem.—Olive oil. 662

1657 Abreu, Francisco Rodrigues de, Abrantes, Santarem.—Olive oil. 662

1659 Almeida, Manuel d', Gafanhao, Visen.—Olive oil. 662

1660 Abreu, Joao Lopes Coelho de, Barcouco, Aveiro.—Olive oil. 662

1661 Almeida, Antonio Ribeiro da Costa e, Sta. Leocadia de Baio, Oporto.—Olive oil. 662

1662 Aragao, Alexandre de, Villa Flor, Braganca.—Olive oil. 662

1663 Sachetti, Cazimiro Barreto, N. S. da Gloria, Aveiro.—Olive oil. 662

1664 Seabra, Alexandre, Arcos, Aveiro.—Olive oil. 662

1665 Santos, Josepha Maria dos, Balasza, Povoa de Varzim.—Olive oil. 662

1666 Silva, Manuel Ribeiro da, Ferreirim, Visen.—Olive oil. 662

1667 Silveira, Manuel Jose da, Arganil, Coimbra.—Olive oil. 662

1668 Brito, Joao Fernandes Soares de, Nisa, Portalegre.—Olive oil. 662

1669 Barros, Luis Xavier de, Portalegre.—Olive oil. 662

1670 Barros Gomes, B., Lisbon.—Olive oil. 662

1671 Castro, Joaquim Jose Paditha de, Abrantes, Santarem.—Olive oil. 662

1672 Costa, Antonio da, Elvas, Portalegre.—Olive oil. 662

1673 Conceiro, Joaquim Rodrigues, Elvas, Portalegre.—Olive oil. 662

1674 Cosoliero, Manuel Goncalves, Valle da Serra, Santarem.—Olive oil. 662

1675 Corinho, Jose Maria, Montargil, Portalegra.—Olive oil. 662

1676 Coelho, Manuel Diogo, Castello de Vide, Portalegra.—Olive oil. 662

1677 Callado jr., Joao da Costa, Alter do Chao, Portalegre.—Olive oil. 662

1678 Cunha Ozorio, Joaquim Felizardo da, Arronches, Portalegre.—Olive oil. 662

1679 Conde, Domingos Lopes, Montalvao, Portalegre.—Olive oil. 662

1680 Peixoto, Jose Nunes de Souza, Penafiel, Oporto.—Olive oil. 662

1681 Continho, Joao da Fonseca, Portalegre.—Olive oil. 662

1682 Chicorro, Antonio Maria, Portalegre.—Olive oil. 662

1683 Carvalho, Antonio Jose de, Elvas, Portalegre.—Olive oil. 662

1684 Correa, Joaquim, Penacova, Coimbra.—Olive oil. 662

1685 Carvalho, Simao Pinto de Mesquita, Sta. Leocadia, Oporto.—Olive oil. 662

1686 Carvalho, Joao Baptista, Valle Passos, Villa Real.—Olive oil 662

1687 Cardoso, Francisco Antonio Lopes, Monvorio, Braganca.—Olive oil. 662

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Animal and Vegetable Products.

1688 Conde da Graciosa, Arcos, Aveiro. —Olive oil. 662

1689 Costa, Lucio Jose da, Salzedas, Visen.—Olive oil. 662

1690 Continho, Fernando Affonso d'Almeida, Sepins, Coimbra.—Olive oil. 662

1691 Souza, Jose d'Andrade e, Portalegre.—Olive oil. 662

1692 Souza, Jose Saldanha Oliveira e. —Olive oil. 662

1693 Santa Clara, Francisco de Paula, Elvas, Portalegre.—Olive oil. 662

1694 Salazar, Manuel Maia, Torres Novas, Santarem.—Olive oil. 662

1695 Reis, Antonio dos, Lisbon.—Olive oil. 662

1696 Rijo, Joaquim Antonio, Elvas, Portalegre.—Olive oil. 662

1697 Ramires, Manuel Peres, Evora.—Olive oil. 662

1698 Regallo, Antonio Meira, Portalegre.—Olive oil. 662

1699 Ratto, Antonio Gonsalves, Barquinha, Santarem.—Olive oil. 662

1700 Ramos, Manuel Nogueira, Goes, Coimbra.—Olive oil. 662

1701 Rodrigues, Manuel Antonio, Ferradosa, Braganca.—Olive oil. 662

1702 Rocha, Serafim de Sousa, Canellas, Oporto.—Olive oil. 662

1703 Rocha, Antonio Coelho da, Gondomar, Oporto.—Olive oil. 662

1704 Mendonca, Joao Themudo de Oliveira, Abrantes, Santarem.—Olive oil. 662

1705 Mendes, Joas Jose Soares, Abrantes, Santarem.—Olive oil. 662

1706 Barao de Casaes do Douro, Casaes do Douro, Visen.—Olive oil. 662

1707 Lemos, Joao Gonsalves de, Souza, Coimbra.—Olive oil. 662

1708 Leite, Joao Baptista de Araujo, Mirandella, Braganca.—Olive oil. 662

1709 Monteiro, Francisco Vaz, Ponte Sor, Portalegre.—Olive oil. 662

1710 Vasconcellos, Francisco Maria de, Sabugal, Guarda.—Olive oil. 662

1711 Vieira, Agostinho Jose, Sto. Ovidio, Porto.—Olive oil. 662

1712 Vassea & Coelho, Oporto.—Olive oil. 662

1713 Vasconcellos, Manuel S. Quaresma, Condeixa, Coimbra.—Olive oil. 662

1714 Veiga, Francisco Antonio, Goes, Coimbra.—Olive oil. 662

1715 Vasconcellos, Joaquim Guilherme de, Elvas, Portalegre.—Olive oil. 662

1716 Varella jr., Jose Gomes, Serpa, Beja.—Olive oil. 662

1717 Oliveira Manuel Joaquim de Sendin, Miranda do Douro.—Olive oil. 662

1718 Oliveira, Jose Duarte, Murca, Villa Real.—Olive oil. 662

1719 Valdez, Antonio de Campos, Alcacer do Sal, Lisbon.—Olive oil. 662

1720 Serpa, Francisco Lopes, Portalegre.—Olive oil. 662

1721 Moran, Jose Antonio Martins, Vianna do Alemteio.—Olive oil 662

1722 Osorio, Manuel de Azevedo Ferrao, Monforte, Castello Branco.—Olive oil. 662

1723 Leitao, Joas Paes d'Almeida, Sattam, Visen.—Olive oil, 662

1724 Leite, Jeronymo Augusto Pereira, Cavez, Braga.—Olive oil. 662

1725 Loio, Gaspar, da Silva, Armamar, Viseu.—Olive oil. 662

1726 Lobo, Jose Maria, Guarda.—Olive oil. 662

1727 Neves, Filho, Adelino St. Antonio dos Olivaes, Coimbra.—Olive oil. 662

1728 Negrao, Manuel Nicolau Osorio, Ansede, Oporto.—Olive oil. 662

1729 Pinto, Antonio Thomas da Costa, Bibalonga, Braganca.—Olive oil. 662

1730 Pereira, Jose Sebastiao Martins, S. Thiago, Coimbra.—Olive oil. 662

1731 Lima Meyer & Sons, Lisbon.—Olive oil. 662

1732 Mendes, Raymundo Jose Soares, Abrantes, Santarem.—Olive oil. 662

1733 Mourato, Mathias, Alpalao, Portalegre.—Olive oil. 662

1734 Kempe, Guilherme, Lisbon.—Olive oil. 662

1735 Mendes, Casemiro Esteves, Aviz, Portalegre.—Olive oil. 662

1736 Mocinha, Manuel Jeronymo, Campo Maior, Portalegre.—Olive oil. 662

1737 Moraes, Jose Barzilio, Arronches, Portalegre.—Olive oil. 662

1738 Lima, Andre Avelino de, Cano, Portalegre.—Olive oil. 662

1738a Abrantes, Viscount da A., Santarem.—Olive oil. 662

1738b Chicorro, Andre G., Monforte, Portalegre.—Olive oil. 662

1739 Lobo, Thomaz Antonio de Araujo, Oporto.—Olive oil. 662

1740 Souza, Jose Antonio Nunes de, Covilha, Castello Branco.—Olive oil. 662

1741 Senna Bello, Manuel Thomar de, Guarda.—Olive oil. 662

1742 Silva, Jose Nunes, Elvas, Portalegre.—Olive oil. 662

1743 Mello, Higino O. de, Queroza, Santarem.—Olive oil. 662

1744 Asevedo, Marianno de Lemos, Villa Nova de Ourem, Santarem.—Olive oil. 662

1745 Araujo, Antonio Joaquim de, Thomar, Santarem.—Olive oil. 662

1746 Almeida, Antonio Mendes, Alcacer do Sal, Lisbon.—Olive oil. 662

1747 Almeida, Sebastiao Saldanha de, Portalegre.—Olive oil. 662

1748 Bentes, Ignacio Jose, Serpa, Beja. —Olive oil. 662

1749 Cardozo, Antonio Augusto Correa da Silva, Cellorico, Guarda.—Olive oil 662

1750 Castello Branco, Joao da Silva Ferrao de, Villa Franca, Lisbon.—Olive oil. 662

1751 Domingues, Victorino Jose, Faro. —Olive oil. 662

1752 Duarte, Egydio Jose, Castello de Vide, Portalegre.—Olive oil 662

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12-14

Animal and Vegetable Products, Textile Substances.

1753 Freire, Jose Luis Ferreira, Lagos, Coimbra.—Olive oil. 662

1754 Fernandes, Justiniano Jose, Mirandella, Braganca.—Olive oil. 662

1755 Figueiredo, Joao Ferreira de, Villa Flor, Braganca.—Olive oil. 662

1756 Ferrenda, Ildefonso Numes, Valdigem, Viseu.—Olive oil. 662

1757 Freixedas, Eduardo, Castello de Vide, Portalegre.—Olive oil. 662

1758 Guimaraes, Manuel Antonio da Costa, Mirandella, Braganca.—Olive oil. 662

1759 Guerra, Thomas Ignacio de Meirelles, Moncorvo, Braganca.—Olive oil. 660

1760 Gomes, Joao Manuel, Portalegre.—Olive oil. 662

1762 Gama, Jose Augusto Sanches, Coimbra.—Olive oil. 662

1763 Gama, Joao Cardoso Lemos da, Casa Branca, Portalegre.—Olive oil. 662

1764 Grillo, Manuel Francisco, Ribeira de Nisa, Portalegre.—Olive oil. 662

1766 Blanco, Andre Faustino Peres, Aldeia Nova, Beja.—Olive oil. 662

1767 Campos, Antonio d'Aranjo Juzarte de, Portalegre.—Olive oil. 662

1768 Avilez, Count of, Portalegre.—Olive oil. 662

1769 Carvalho, Joao Augusto, Portalegre.—Olive oil. 662

1770 Carvalho, Euzebio Nobre de, Lisbon.—Olive oil. 662

1771 Costa, Manuel Joaquim, Portalegre.—Olive oil. 662

1772 Calheiros, Luis d'Oliveira, Lisbon.—Olive oil. 662

1773 Carvalho, Joao Antonio de, Porto de Moz, Leiria.—Olive oil. 662

1774 Castro, Antonio Maria Queiroz de Mello e, Frozoeira, Ferreira do Zezere, Santarem.—Olive oil. 662

1775 Figueiredo, Jose Paulo Teixeira de, Matheus, Villa Real.—Olive oil. 662

1776 Fernandes, Joaquin Pinto, Campello, Oporto.—Olive oil. 662

1777 Falcao, Maximo, Azinhaga, Santarem.—Olive oil. 662

1778 Fernandes, Joaquim, Mogao, Santarem.—Olive oil. 662

1779 Ferreira, Jose Maria, Chamusca, Santarem.—Olive oil. 662

1780 Ferreira, Joaquim da Motta, Rio Maior, Santarem.—Olive oil. 662

1781 Figueira, Manuel Duarte, Castello Branco.—Olive oil. 662

1782 Ferreira, Joaquim Jose, Elvas, Portalegre.—Olive oil. 662

1783 Falcao, Joao Carlos da Costa, Fundao, Alcaide, Castello Branco.—Olive oil. 662

1785 Escobar, Hermenegildo, Portalegre.—Olive oil. 662

1786 Inchado, Jose Antonio Dias, Moura, Portalegre.—Olive oil. 662

1788 Deus, Joao Rodrigues de, & Co., Torres Novas, Santarem.—Olive oil. 662

1789 Vieira, Agostinho Jose, Sto. Ovidio, Oporto.—Olive oil 662

1791 Teixeira, Carlos Augusto, Grandola, Lisbon.—Olive oil. 662

1792 Tavares, Antonio Jose, Covilha, Castello Branco.—Olive oil. 662

1793 Tierno, Simeon, Elvas, Portalegre.—Olive oil. 662

1794 Teixeira, Manuel Maria, Mirandella, Braganca.—Olive oil. 662

1795 Xavier, Manuel Camillo, Benavente, Santarem.—Olive oil. 662

1796 Yuquete, Jose de Oliveira, Leiria.—Olive oil. 662

1797 Leal, A. Goncalves da Matta, Castanheira.—Olive oil. 662

1798 Mello, Joaquim Jose de, Pampilhosa, Aveiro.—Olive oil. 662

Textile Substances of Vegetable or Animal Origin.

1799 Sarmento, Antonio Ferreira, Vinhaes, Braganca.—Flax. 666

1800 Silva, Domingos d'Almeida e, S. Mamede, Oporto.—National flax. 666

1801 Sencadas, Manuel Gomes Moreira, Amorim, Oporto.—Flax. 666

1802 Louza, Augusto Pereira d'Abreu, Sta. Marinha, Villa Real.—Flax. 666

1803 Pygnatelli, Jose da Cunha, Guarda.—Flax. 666

1804 Cavadas, Jose da Silva, S. Mamede, Oporto.—Flax. 666

1805 Mattos, Rita de, Ponta Delgada.—Linen in various stages of preparation. 666

1806 Castello, Antonio de Gouvea Rebello, Sernache, Viseu.—Flax. 666

1807 Souto, Antonio Duarte da Cunho, Freixinho, Visen.—Flax. 666

1809 Rodrigues, Joaquim, Oporto.—Combed flax. 666

1810 Queiroz, Joaquim Carneiro Leao, Meixomil, Oporto.—Flax. 666

1811 Queiroz, Jose de Sequeira Pinto, S. Sebastiao do Duque, Vianna do Castello.—Flax. 666

1814 Almeida, Joaquim Ribeiro, Campanha, Oporto.—Flax. 666

1815 Albergaria, Thomas Antonio Pinto Soares, Villa Cha, Aveiro.—Flax. 666

1816 Administrator of the Counsello of Alentem, Alentem, Oporto.—Flax. 666

1817 Almeida, Manuel d', Gafanhao. Viseu.—Flax. 666

1818 Coelho, Jose Justino, Villa do Tamega, Villa Real.—Flax. 666

1819 Carvalho, Joaquim Augusto da Silveira, Penafiel, Porto.—Flax. 666

1820 Costa, Manuel Jorge da, Valongo, Oporto.—Flax. 666

1821 Cadaval, Francisco de Sousa, Villa Nova da Cevreria, Vianna do Castello.—Flax. 666

1822 Moraes, Antonio da Silva, Sardoal, Santarem.—Flax. 666

1823 Matta, Anacleto da Fonseca, Sardoal, Santarem.—Hemp. 666

1824 Silva, Jose Diogo da, Lisbon.—Wool. 666

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp 12–14.

Textile Substances.

1826 Saraiva, Francisco Martins, Belmonte, Castello Branco.
a Flax. 666
b Wool. 667

1827 Basto, Manuel Jose Teixeira, S. Miguel de Refoyos, Braga.—Flax. 666

1828 Pimentel, Jose Reis, Castello de Vide, Portalegre.—Flax. 666

1829 Freitas, Jose Monteiro de, Campello, Oporto.—Flax. 666

1830 Ferreira, Joao Dias, Vallongo, Oporto.—Flax. 666

1831 Frausto, Leandro Pinto, Marvao, Portalegre.—Flax. 666

1832 Franco, Joao, Povoa de Meadas, Portalegre.—Flax. 666

1833 Guerra, Thomas Ignacio de Meirelles, Moncorvo, Braganca.—Flax. 666

1834 Gama, Manuel Telles da, Lisbon. —Wines. 660

1835 Gomes, Antonio Luis, Valenca, Vianna do Castello.—Flax. 666

1836 Guerreiro, Antonio Manuel, Villa Nova da Cerveira, Vianna do Castello.—Flax. 666

1837 Vieira, Pedro Martins, Cabeceiras de Bastro, Braga.—Flax. 666

1838 Torres, Antonio Alves, Arcos, Oporto.—Flax. 666

1839 Morelra, Joao Baptista, Rates, Oporto.—Flax. 666

1840 Machado, Manuel Barcellos, Viseu.—Flax. 666

1841 Soveral, Victorino da Costa, Mondim de Basto.—Flax. 666

1842 Leite, Luis Maria Felgueiras, Mogadouro, Braganca.—Hemp. 666

1843 Leal, Manuel da Cunha, Sobreira, Oporto.—Flax. 666

1844 Nogueira, Francisco Bento, Paredes de Coura, Vianna do Castello.—Flax. 666

1845 Pedroza, Maria Jose Lopes, Lavos, Coimbra.—Flax. 666

1846 Mattos, Rosa de, Island of St. Michaels, Ponta Delgada.—Flax, hemp, and hemp-thread. 666

1847 Mesquita, Pedro Jose de, Sinde, Coimbra.—Flax. 666

1848 Leite, Antonio Bernardo d'Oliveira, Cabeceiras de Basto, Braga.—Flax. 666

1849 Mendes, Luis Antonio Soares, Castello Branco.—Flax. 666

1850 Fernandes, Manuel Ignacio, Telloes, Villa Real.
a Flax. 666
b Wool. 667

1851 Montenegro, Joao Joaquim Pereira Telles de Menezes Mozellos, Vianna do Castello.
a Flax. 666
b Wool. 667

1852 Rapozo, Luis, Miranda do Douro, Braganca.
a Flax. 666
b Wool. 667

1853 Magalhaes, Francisco T., Sinde, Coimbra.
a Flax. 666
b Wool. 667

1854 Silva, Antonio Lopes da, Balasar, Oporto.
a Flax. 666
b Wool. 667

1855 Santos, Ascencio Jose dos, Valenca, Vianna do Castello.
a Flax. 666
c Wool. 667

1855*a* Rosa, Jose da Graca Pereira. Niza, Portalegre.—Wool. 667

1856 Sarmento, Manuel Gomes de, St. Estevao, Villa Real.—Wool. 667

1856*a* Souza, Manuel Lopes de, Guarda.—Wool. 667

1857 Piteira Fernandez, Joaquim Filippe, Reguengo, Evora.—Wool. 667

1857*a* Sardinha, Joao Maria da Silva, Monforte, Portalegre.—Wool. 667

1858 Pinto, Antonio Mascarade, Villa Boim, Portalegre.—Wool. 667

1858*a* Silva, Jose Diogo da, Lisbon.—Wool. 667

1859 Pimenta, Isidoro E. O. C. Margues, Villa Boim, Portalegre.—Wool. 667

1860 Pereira, Jose Francisco, Castello de Vide, Portalegre.—Wool in the fleece 667

1861 Pereira, Jeronymo, Serpa, Beja.—Wool. 667

1862 Pimentel, Jose Reis, Povoa de Meadas, Portalegre.—Wool. 667

1863 Continho, Fernando Affonso d'Almeida, Sepins, Coimbra.—Wool. 666

1864 Pimentel, Antonio Augusto de Moraes, Castello Branco, Braganca.—Wool. 667

1865 Couraca, Jose de Gouvea, Faia, Viseu.—Wool. 667

1866 Rio, Antonio Manuel, Miranda do Douro, Braganca.—Wool. 665

1867 Montoya, Diogo Lopes, Castello Branco.—Wool. 667

1868 Murteira, Manuel Maria, Campo Maior, Portalegre.—Wool. 667

1869 Lacerda, Antonio Augusto de, Chorindo, Visen.—Wool. 667

1870 Costa, Lourenco Justiniano da Fonseca, Oliveira do Hospital, Coimbra. —Wool. 667

1871 Calca e Pina, Antonio, Souzel, Portalegre.—Wool, 667

1872 Lecocq, Joao Jose, Castello de Vide, Portalegre.—Wool. 667

1873 Pera, Francisco Marcos, Miranda do Douro, Braganca.—Wool. 667

1874 Pascual, Eduardo Augusto, Meixomil, Oporto.—Wool. 667

1875 Lemos, Francisco Antonio Pereira, Villarellos, Braganca.—Wool. 667

1876 Marcal & Bro., Portalegre.—Wool unwashed and washed. 667

1877 Oliveira Soares, M. E. de, Evora. —Wool. 667

1878 Villar, Manuel Pereira, Torroso, Oporto.—Wool. 667

1879 Carneiro, Jose Antonio, Santa Eulalia, Portalegre.—Wool. 667

1880 Casqueiro, Jose Maria, Crato, Portalegre.—Wool 667

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Textile Substances, Engineering and Administration.

1881 O. veira, Domingos Manuel, Miranda do Douro, Braganca.—Wool. 667

1882 Vasconcellos, Bartholomeu d'Aragao Costa Tavares de, Fundao, Castello Branco.—Wool. 667

1883 Miranda, Antonio Augusto Lobo de, Lagos, Faro.—Wool. 667

1884 Bogalho, Joao Joaquim, Villa, Boim.—Wool. 667

1885 Bello, Francisco Severianno Carilho, Castello de Vide, Portalegre.—Wool in the fleece. 667

1886 Coelho, Luis Pires, Sardoal, Santarem.—Wool. 667

1887 Guimaraes, Victorino Barbosa, Penafiel, Oporto.—Wool. 667

1888 Migueis, Joao, Ilhavo.—Wool. 667

1889 Castel Branco, Francisco Barreto Caldeira, Portalegre.—Wool. 667

1890 Falcao, Lazaro Domingos, Povoa, Braganca.—Wool. 667

1891 Geraldes, Manuel Vaz Preto, Louza, Castello Branco.—Wool. 667

1892 Veiga, Jose d'Almeida, Anciaes, Braganca.—Wool. 667

1894 Costa, Joao Carlos, Elvas, Portalegre.—Wool. 667

1895 Cid, Jose Ignacio, Mirandella Braganca.—Wool. 667

1896 Central Commission of the District of Viseu, Viseu.
a Wool. 667
b Silk balls. 668

1897 Nunes, Antonio Manuel, Chacim, Braganca.—Raw silk. 668

1898 Franqueira, Romao, Carrazede, Braganca.—Cocoons. 668

1899 Cabral, Paco F., & Sons, Sernancethe, Visen.—Cocoons and raw silk. 668

1900 Silk Manufacturing Company, Egyptaniense, Oporto.—Silk balls. 668

Agricultural Engineering and Administration.

1901 Rocha & Co., Lisbon.—Artificial guano. 681

1902 Abattoir of Lisbon, Alcantara, Lisbon.—Artificial manures. 681

1904 Phosphorite Company, Marvensi, Lisbon.—Phosphate of lime. 681

1905 Board of Public Forests, Lisbon.—Garden tools. 700

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

TURKEY.

(NOTE.—*The Agricultural Exhibit of Turkey is installed in the Main Building, and catalogued in that volume.*)

RUSSIA.

(*West of West Aisle, Columns 12 to 15.*)

Arboriculture, Pomology, Agricultural Products.

Arboriculture and Forest Products.

1 Sidoroff, Michael, St. Petersburg.—Larch wood, larch and cedar strobils. 600

2 Verekha, Peter, St. Petersburg.
a Wild-growing trees; collection of sections. 600
b Statistical map of forests (Russia in Europe). 606

3 Ostrom Bros., Uleaborg, Finland.—Willow bark, tanning material. 602

4 Matteissen, Nicolas, Moscow.—Gall-nuts. 602

5 Wagner, Charles, Riga.—Fir and pine tree seeds. 605

6 Russian Society of Forestry, St. Petersburg.—Seeds of forest-growing trees. 605

Pomology.

8 Imperial Russian Horticultural Society, St. Petersburg.—Reproduction of apples growing on the island of Walaam, on the Ladogalake. 610

Agricultural Products.

9 Egert, John von Henziany, Government of Warsaw, District of Radimmin.—Oats, barley, in grain and sheaves. 620

10 Dengink, Henrietta, Kishineff, Bessarabia.—American maize. 620

11 Bessarabian Horticultural School, Kishineff.
a Bessarabian wheat, maize, and Indian millet. 620
b Linseed and sunflower seed. 624

12 Bell, David, Alexandrovska Farm, near St. Petersburg.—Wheat, rye, barley, oats, and timothy grass-seed. 620

13 Novossiltseff, John, Voin, Government of Orel.—Rye, barley, oats, red clover, rape, and tares. 620

14 Firsoff, George, Michalafskoe, Government of Voronesh, District of Ostrogoisk.—Wheat and oats. 620

15 Penzin, John, Samara.—Wheat. 620

16 Plighin, Philip, Volks, Government of Saratoff.—Wheat. 620

17 Shatiloff, Joseph, Mokhovoe, Government of Toola, District of Novossil.—Wheat, rye, barley, and oats in grains and sheaves. 620

18 Stichinsky, Simon, Gololobovo, near Voronesh.—Wheat and oats. 620

19 Vassiltchikoff, Prince Victor, Troobetchino, Government of Tambow, District of Lebedian.—Wheat, rye, and oats. 620

20 Warschafsky, A., St. Petersburg.—Wheat, rye, and oats. 620

21 Wickberg, Charles, Sederkylla, Finland, Government of Nyland.—Wheat, rye, barley, and timothy grass-seed. 620

22 Grotenfeld, Nicolas, Finland, St. Michael.—Buckwheat. 620

23 Ermoloff, Alexis, Archangelskoe, near Voronesh.
a Wheat, oats, peas. 620
b Timothy and French grass-seeds 624

24 Institute of Agriculture & Forestry, New Alexandria, Government of Lublin, District of Alexandrovsk.—Wheat. 620

25 Fastrzembsky, Stanislas, Yurkou and Dembiany, Government of Kielce, District of Pintihow.—Wheat, rye, peas, millet, barley, and oats. 620

26 Kazan Model Farm.—Wheat, rye, oats, timothy grass, clover, tares, and cornspurry seed. 620

27 Karamysheff, Nicolas, Polossy, Government of Pskoff, District of Porkhoff.—Wheat, rye, and oats. 620

28 Korf, Baron Michael, Selzo, near St. Petersburg.—Wheat, rye, barley, and oats. 620

29 Krapotkine, Prince Demetrius, Kabylino, Government of Riazan, District of Riaisk.
a Samples of wheat and buckwheat. 620
b Peas. 621

30 Labenski, W., Okence, Government and District of Warsaw.—Wheat and rye. 620

31 Levchine, Theodore, St. Petersburg.—Wheat. 620

32 Maltzoff, Michael, Nikolaevsk, Government of Samara, Belotoorka.—Wheat. 620

33 Mariynska Model Farm, near Saratoff.—Samples of cereals. 620

34 Gorki Model Farm, Government of Moghileff.—Wheat and rye in grain and sheaves. 620

35 Petrovski Rural Academy Model Farm, near Moscow.—Wheat, rye, barley, and oats. 620

36 Mookhin, John, Moscow.—Red clover, timothy grass, white and black tares. 620

37 Nostitz, Count John, Government of Ekaterinoslaw, District of Novo, Moskovsk.—Red wheat and barley. 620

38 Obratnoff, Paul, Uralsk.—Summer wheat. 620

39 Odessa Exchange Committee, Odessa.—Wheat, rye, barley, maize, and millet. 620

40 Ookhin Brothers, Pokrovskoe, Government of Samara, District of Novo, Ovzen.—Wheat. 620

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Agricultural, Animal, and Vegetable Products, Fish Culture.

41 Petrovski, Michael, Stadly, Government of Radom, District of Sandomir. —Wheat. 620

42 Pleshanoff, John, Samara.—Wheat. 620

43 Zablotskf-Desscotoysky, Paul, Krymki, Government of Kieff, District of Tchigirin.
a Red wheat. 620
b Leaf tobacco. 623
c Comline and beet seed. 624

44 Zakrzevsky, Felix, Staro, Government of Warsaw, District of Gostynin.—Wheat in grain and sheaves. 620

45 Odessa Exchange Committee.—Peas and French beans. 621

46 Mariynska Model Farm, near Saratoff.—Common and French beans. 621

47 Levchine, Theodore, St. Petersburg.
a Peas. 621
b Rape seed. 624

49 Deugink, Henrietta, Kishineff, Bessarabia.—Pearl lentils. 621

50 Bessarabian Agricultural School, Kishineff.—Sweet French beans, white and red. 621

51 Dooroontcha, Sadook, Krementchoog, Government of Poltarvo.—Tobacco and cigarettes. 623

52 Doonaieff, Nicephore, Moscow.—Tobacco and cigarettes. 623

53 Asmoloff & Co., Basil, Rostaff on the Don.—Tobacco and cigarettes. 623

54 Abramoff, Moscow.—Tobacco and cigarettes. 623

55 Dooroontcha, Moshe, Paltawa.—Tobacco and cigarettes. 623

56 Kooshnareff, James, Rostaff on the Don.—Tobacco and cigarettes. 623

57 Kraft Brothers, Alexander & Oswald, St. Petersburg.—Tobacco, cigars, and cigarettes. 623

58 Laferme, St. Petersburg.—Tobacco and cigarettes. 623

60 Rymarenko, Martha, Moscow.—Leaf tobacco. 623

61 Petroff Bros., St. Petersburg.—Leaf tobacco. 623

62 Philitis, Stephen, Moscow.—Tobacco and cigarettes. 623

63 Mylnikoff & Zazoobrin, Irkootsk.—Tobacco and cigars. 623

64 Matteisson, Nicolas, Moscow.—Bell pepper. 623

65 Weiss, C.A., Riga.—Roasted chicory-root 623

66 Pykhoff Brothers, Rostaff, Government of Faroslow.—Chicory-root roasted. 623

67 Meyer, L., St. Petersburg.—Fig-coffee, and chocolate. 623

68 Hofmark, Bruno, St. Petersburg.—Chicory-root, roasted and ground. 623

69 Harman, G. W., Rija.—Chicory-root raw and roasted. 623

70 Maximoff, Basil, Zagorie, Government of Kostroma, District of Nevekhta. —Bohemian hops. 623

71 Kharkoff Model Farm.—Bohemian hops. 623

73 Tzytzoorin, Theodore, St. Petersburg.—Leaf tobacco. 623

74 Sokoloff, John, St. Petersburg.—Tobacco, cigars, and cigarettes. 623

75 Saatchi & Mangoobi, St. Petersburg. —Tobacco and cigarettes. 623

77 Zapevaloff, Alexander, St. Petersburg.—Kitchen-garden plants and seeds. 624

78 Waag & Sons, Doobovka, Government of Saratoff.—Mustard-seed. 624

79 Vassiltchikoff, Prince Victor, Troobetchino, Government of Tamboff, District of Lebedian.—Beet and timothy grass-seeds. 624

80 Ritter, Leopold, Moscow.—Collection of kitchen-garden plants seeds. 624

81 Repnin, Prince, Nicolas, Fagotin, Government of Poltawo, District of Piriatin.—Linseed. 624

82 Pleshanoff, John, Samara.—Linseed. 624

83 Abratnoff, Paul, Uralsk.—Linseed. 624

84 Müller, Christian, Doobovka, Government of Saratoff, District of Tzaritzin. —Mustard seed. 624

85 Mariynska Model Farm, near Saratoff.—Hemp and poppy seed. 624

87 Karamycheff, Eugene, Toriok, Government of Tver.—Linseed. 624

88 Gratcheff, E., St. Petersburg.—Grains and vegetables. 624

89 Dookhinoff Brothers, St. Petersburg. —Linseed. 624

Water Animals, Fish Culture, and Apparatus.

91 Sidoroff, Michael, St. Petersburg.—Fish from the Northern Ocean 641

92 Mangold, Charles, St. Petersburg.—Preserved fish. 641

93 Sokoloff, Nicolas, St. Petersburg.—Isinglass and viazingo. 646

94 Schultz, Alexander, Astrakhan.—Isinglass and viazingo. 646

96 Matteisson, Nicolas, Moscow.—Isinglass. 646

Animal and Vegetable Products.

97 Odnooshefsky, M., & Sons, St. Petersburg.—Furs, sable, blue fox, etc. 652

98 Ulich, Gustavus, Warsaw.—Albumen, dried blood, and blood extract. 652

99 Sivokhin, E., St. Petersburg.—Honey. 654

100 Berlinski, George, Warsaw.—Prepared French mustard. 656

101 Chief Intendancy of War, St. Petersburg.—Preserved meat and vegetables. 656

102 Yacovleff, John, St. Petersburg.—Preserved greens and mushrooms. 656

103 Sivokhin, E., St. Petersburg.—Preserved greens and mushrooms. 656

104 Semenkoff, Victor, Oostie. Government of Vologda.—Meat extract 656

105 Sidoroff, Michael, St. Petersburg. —Salt reindeer tongues from the island of Nova Zembla. 656

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12-14.

Animal and Vegetable Products.

106 Nikitin, Alexander, Smolensk.—Fruit preserves. 656

107 Mangold, Charles, St. Petersburg.—Preserved meats. 656

108 Ninberg, Otto, Uleaborg, Finland.—Preserved game. 656

109 Likhonin, Gregory, St. Petersburg.—Cranberry juice condensed by freezing. 656

110 Foorkhin, Paul, St. Petersburg.—Fruit paste (pastila). 656

111 Martens, Julius, St. Petersburg.—Coffee extract, dry and liquid. 656

112 Company for the Supply of Food, Varonesh and Moscow.—Preserved meat and vegetables for the army. 656

113 Petroff, John, St. Petersburg.—Cranberry juice. 656

114 Abrikosoff's Sons, Moscow.—Preserves, marmalade, fruit-paste. 656

115 Stephany, F., Mitau.—Wheat-flour. 657

116 Waag & Sons, Doobovka, Government of Saratoff.
a Mustard-flour, decorticated mustard-seed and husks. 657
b Mustard-seed oil and cake. 662

117 Verevitin, Alexis, Mzensk, Government of Orel.—Wheat-flour and decorticated grain. 657

118 Taldykin, Catherine, Eletz, Government of Orel.—Wheat-flour and decorticated grain. 657

119 Müller, Christian, Doobovka, Government of Saratoff, District of Tzaritsin.
a Mustard-flour, decorticated seed and husks. 657
b Mustard-seed oil and cakes. 662

120 Matteissen, Nicolas, Moscow.—
a Flour and groats. 657
b Anise and mustard seed oil. 662

122 Golikoff, K. P., Frtzach, Government of Riazan, District of Spassk.—Starch and glycose. 658

123 Tarnoosky, Basil, Parafievka, Government of Tchernigoff, District of Berzna.—Raw sugar. 659

124 Galitzyn, Prince Victor, Slavgorod, Kharkoff, District of Akhtyvke.—Raw beet-root sugar. 659

125 Hermanoff Sugar Manufacturing Company, Government of Warsaw.—Refined sugar in loaves and crystallized. 659

126 Gnevan Sugar Manufacturing Company, Government of Warsaw.—Refined sugar. 659

127 Wassiltchikoff, Prince Victor, Troobetchina, Government of Tamboff, District of Lipetzk.—Raw beet-root sugar. 659

128 Warsaw Sugar Manufacturing Company, Warsaw.—Refined sugar. 659

129 Sokolovka Sugar Manufacturing Company, Government of Podolia, District of Olgopol.—Refined beet-sugar. 659

130 Ostroff Sugar Manufacturing Company, Warsaw.—Sugar refined. 659

131 Sergeieff, Alexis & Apraxin, Count John, Pensa.—Refined beet-root sugar. 659

132 Nathanson, Jacob, Warsaw.—Sugar refined. 659

133 Mlodzescin Sugar Mill, Government of Warsaw.—Sugar refined in loaves and powder. 659

134 Meck, Charles von, Brailovka, Government of Podolia, District of Vinnitza.—Beet-root sugar, raw and refined. 659

135 Lanin, Nicolas, Moscow.—Fruit syrups and juices, effervescent fruit liquors and mineral waters. 659

136 Kümens, Richard, Sobolevka & Tsharnomin, Government of Podolia, District of Gaissin.—Sugar, raw and refined. 659

137 Krasinec Sugar Mill Company, Government of Plock.—Sugar. 659

138 Keshner, Frederic, St. Petersburg.—Refined beet-root sugar. 659

139 Yoozefow Sugar Manufacturing Company, Government of Warsaw.—Refined sugar. 659

140 Goozov Sugar Manufacturing Company, Government of Warsaw.—Refined sugar. 659

141 Dobrozelinsky Sugar Manufacturing Company, Government of Warsaw.—Sugar, raw and refined. 659

142 Maizner, N. Lanenta, & Fzabelin, Sugar Mills, Government of Warsaw.—Beet-root sugar, raw and refined. 659

143 Lysckowice Sugar Manufacturing Company, Government of Warsaw.—Refined sugar. 659

144 Leonoff Sugar Manufacturing Company, Government of Warsaw.—Beet-root sugar, refined. 659

145 Paskevitch, F., Soodak, Crimea.—Wine. 660

146 Doolvetoff, David, Simpheropol, Crimea.—White wine. 660

147 Imperial Nikitzky Garden, Yalta, Crimea.—White and red wine. 660

148 Foondoocley, John, Goorsoof District, Yalta, Crimea.—Wine. 660

149 Kniajevitch, Antoine, Alushta, Crimea.—Crimean wine. 660

150 Lancki, Robert, Soodack, Crimea.—Red and white wine. 660

151 Lanin, Nicolas, Moscow.—Liquors. 660

152 Hartwig, Herman, Malo Danilof brewery near Kharkoff.—Beer, mead, and malt. 660

153 Worontzoff, Prince Simon, Massandra, Crimea.—Red and white wines. 660

154 Bashmakoff, S. D., St. Petersburg.—Spirits and liquors. 660

155 Deshariot, A., Moscow.—Spirits, cordials, and liquors. 660

156 Makaroff, Petrus, Tiflis.—Kakhetian wine, red and white. 660

157 Rajevski, Nicolas, Crimea district, Yalta.—Wines. 660

158 Briantzeff, Victor, Irkoutsk.—Cordials and liquors. 660

159 Fokrath & Co., St. Petersburg.—Cordials and liquors. 660

160 Grevsmül, Alexander, Moscow.—Spirits. 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp 12–14.

Animal and Vegetable Products, Textile Substances.

161 Grote, Alexander von, Lemburg, near Riga.—Cumin liqueur. 660

162 Korf, Baron K., St. Petersburg.—Spirits and liquors. 660

163 Karali, G. N., & Co., St. Petersburg.—Cordials, liquors, and spirits. 660

164 Kalashnikoff, Peter, Pskoff.—Spirits, cordials, and liquors. 660

165 Tankowski, T., Warsaw.—Cordials and liquors. 660

166 Scheierman & Co., Riga.—Vinegars. 660

167 Lutoslavski, T., Drosdovo, Government & District of Lomza.—Bottled beer. 660

168 Krause, W., Warsaw.—Beer. 660

169 Tlgezem Brewery Company, near Riga.—Malt extract. 660

170 Doordin, John, St. Petersburg.—Beer. 660

171 Zyzykin, M. Y., Brothers, Moscow.—Cordials, liquors, and artificial champagne. 660

172 Wickel, Y., Helsingfors.—Swedish punch. 660

173 Varaksin, Demetrius, & Sanin, George, Kazan.—Spirits and liquors. 660

174 Traverse, Marquis Alexander de Looga, Government of St. Petersburg.—Cordials and liquors. 660

175 Stemnikovski, A., Warsaw.—Corn brandy and mead. 660

176 Smirnoff, Peter, Moscow.—Cordials, spirits, and liquors. 660

177 Rouget, Pauline, Moscow.—Cordials and liquors. 660

178 Petroff, W., St. Petersburg.—Spirits, cordials, and liquors. 660

179 Natus, T., & Co., St. Petersburg.—Spirits and liquors. 660

180 Martini, G., St. Petersburg.—Spirits, cordials, and liquors. 660

181 Lilieroth, Victor, Helsingfors.—Imperial and fruit punch. 660

182 Landrin, George, St. Petersburg.—Bonbons and chocolate. 661

183 Zaitzeff, Simon, Moscow.—Cakes and gingerbread. 661

184 Sivakhin, E., St. Petersburg.—Gingerbread. 661

185 Meyer L., St. Petersburg.—Gingerbread and bonbons. 661

186 Lapin, N. & A., Brothers, St. Petersburg.—Cakes, marmalade, chocolate, and confectionery. 661

187 Koodriavzeff, A. & G., Brothers, Moscow.—Sweetmeats and sugar candy. 661

188 Ootkin, Basil, Tver.—Cakes. 661

189 Belolipetzky, Michael, Toola.—Cakes. 661

191 Tzelikoff, Theodore, Moscow.—Vegetable oils and linseed oil cakes. 662

193 Zablotsky, Dessetovsky Paul, Kryniki, Government of Kieff, District of Tchigirin.—Canline seed oil. 662

Textile Substances of Vegetable or Animal Origin.

195 Agricultural Museum of the Ministry of Domains, St. Petersburg.—Samples of cotton and cotton seed grown in Turkestan, Central Asia. 665

196 Wishaw, Alfred, St. Petersburg.—Vologda flax. 666

197 Warschafsky, A., St. Petersburg.—Flax. 666

198 Repnin, Prince Nicolas, Fagotin, Government of Poltawo, District of Periatin.—Flax in different stages of preparation. 666

199 Pskoff Statistical Committee.—Flax from the Government of Pskoff. 666

200 Nemiloff, Anthony, Orel.—Hemp cleaned and uncleaned. 666

201 Maximoff, Basil, Zagorye, Government of Kostroma, District of Nerekhta.—Flax raw and clean. 666

202 Kazan Model Farm, Kazan.—Flax. 666

203 Karamysheff, Nicholas, Polossy, Government of Pskoff, District of Porkhoff.—Flax. 666

204 Karamysheff, Eugene, Torjok, Government of Tver.—Flax. 666

205 Gent & Co., Pskoff.—Flax. 666

206 Riga Exchange Committee, Riga.—Flax and hemp. 666

207 Cartau, Robert, Pskoff.—Flax. 666

208 Vassilief, Nicolas, Ovekque.—Flax, clean and half clean, flax tow. 666

209 Bykoff, Theodore, Vologda.—Flax. 666

210 Mariolaki, P., Rostoff on the Don.—Washed wool of the Russian Donskoy breed. 667

211 Stichinsky, Simon, Gololobovo, near Voronesh.—Wool in fleece. 667

212 Orloff, Nicolas, Repievka, Government of Saratoff, District of Balashoff.—Wool in fleece. 667

213 Warschafsky, A., St. Petersburg.—Wool, Rambouillet and Rambouillet Negretti breeds. 667

214 Moshevski, Wladislav, Odessa.—Wool of common Don breed. 667

215 Mariynska Model Farm, near Saratoff.—Wool in fleece. 667

216 Labensky, V., Okence, Government & District of Warsaw.—Samples of wool. 667

217 Karlovka Estate of H. F. H. the Grand Duchess Catharine Mihaelovna, Government of Poltawo, District of Constantinovgrad.—Merino wool for carded and combed wool-stuffs. 667

218 Komarovsky, Count, Government & District of Orel.—Wool in fleece, Russian and Negretti breeds. 667

219 Glinka, Nicolas, Szczavin, Government of Lomza, District of Ostrolenka.—Wool. 667

220 Ganeshin Brothers & Co., Moscow.—Washed wool, Metis and Tzigai breed. 667

221 Fatz, Theodore, Olviopol, Government of Kherson.—Wool in fleece, Spanish breed. 667

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12-14

Machines, Implements, Engineering, and Administration.

222 Falz, Fein, Edward, Kakhovka, Government of Tauride.—Washed and unwashed wool. 667

223 Baklanoff's, K. K., Sons, Moscow.—Washed wool, merino breed. 667

224 Pokrovsky Sisterhood of Charity, Moscow.—Cocoons of silk-worms, floss and raw silk. 668

225 Lootchinsky, Laurentius, Oaman, Government of Kief.—Cocoons, raw and floss silk. 668

226 Kozishnikoff, Peter, Veliki Oostioog, Government of Vologda.—Bristles. 669

Machines, Implements, and Processes of Manufacture.

227 Lilpop, Rau, & Loevenstein, Warsaw.
a Reaping-machine. 672
b Threshing-machine for corn and clover-seed. 673

228 Grubinksky, Florain, Warsaw.—Reaping-machine. 672

229 Benkovski, Albert, Warsaw.—Asparagus-digger. 672

230 Westberg, Nicholas, Kharkoff.—Threshing-machine. 673

231 Meshtcherin, John, Orel.—Winnowing and sorting machine. 673

233 Fvanoff, Alexander, Kharkoff.—Winnowing and sorting machines. 673

Agricultural Engineering and Administration.

234 Calcined Bone Manufacturing Company, St. Petersburg.—Ground bone and horn, and phosphatic manures. 681

235 Przeciszewsky, Constantine, Warsaw.—Pulverized bones for manure. 681

236 Borissovki, Peter, Moscow.—Apiary and artificial honey-comb. 683

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

JAPAN.

Location, South-west Corner of Agricultural Hall.

Arboriculture, Agricultural Products, Fish Culture.

Arboriculture and Forest Products.

1 Kuwangiyo-Riyo (Imperial Board of Agriculture, Industry, & Commerce), Tokio.
- *a* Specimens of trees. 600
- *b* Dyewoods, barks, and galls. 602
- *c* Resins, etc. 603

2 Matsu-o, I., Tokio.—Bamboo. 601

Agricultural Products.

3 Kuwangiyo-Riyo (Imperial Board of Agriculture, Industry, & Commerce), Tokio.
- *a* Rice, millet, wheat, sorghum, Indian corn, etc. 620
- *b* Beans, peas, etc. 621
- *c* Teas, green and black. 623
- *d* Seeds. 624

4 Kaitakushi (Department for the Colonization of the island of Yesso).—Wheat. 620

5 Shirakawa-ken, Local Government of.—Tobacco leaves, cut and uncut. 623

6 Kagoshima-ken, Local Government of.—Tobacco leaves, cut and uncut. 623

7 Shiga-ken, Local Government of.—Tobacco leaves, cut. 623

8 Kiyoto, Municipality of, Kiyoto-fu.—Tobacco leaves, cut and uncut. 623

9 Osaka, Municipality of, Osaka-fu.—Tobacco leaves, cut and uncut. 623

10 Nagasaki-ken, Local Government of.—Cigars. 623

11 Saga-ken, Local Government of.—Tobacco. 623

12 Noda, D., Kumamoto, Province of Higo.—Tobacco leaves and cigars. 623

13 Kiriu-Kosho-Kuwaisha (First Japanese Manufacturing & Trading Company), Tokio.—Cigarettes and tea. 623

14 Susuki, S., Province of Hiuga.—Tea. 623

15 Kuroki, Y., Province of Hiuga.—Tea. 623

16 Otori, M., Province of Hiuga.—Tea. 623

17 Sato, S., Province of Hiuga.—Tea. 623

18 Womura, I., Province of Hiuga.—Tea. 623

19 Watanabe, M., Province of Hitachi.—Green tea. 623

20 Yebihara, Y., Province of Hitachi.—Green tea. 623

21 Katakura, J., Province of Hitachi.—Green tea. 623

22 Kuroda, N., Province of Higo.—Green tea. 623

23 Kamimura, N., Province of Higo.—Green tea. 623

24 Kaku, S., Province of Higo.—Green tea. 623

25 Fujita, H., Province of Higo.—Green tea. 623

26 Kobori, C., Province of Higo.—Green tea. 623

27 Hirano, H., Province of Higo.—Black tea. 624

28 Tanaka, K., Province of Chikugo.—Black tea. 623

29 Kawai, S., Province of Omi.—Green tea. 623

30 Maino, R., Province of Omi.—Green tea. 623

31 Hayashi, Y., Province of Tosa.—Green tea. 623

32 Morikawa, K., Province of Yetchizen.—Green tea. 623

33 Hori, G., Province of Iwami.—Tea. 623

34 Miura, G., Province of Mino.—Tea. 623

35 Miyazaki, T., Province of Hizen.—Green tea. 623

36 Sato, I., Province of Yetshigo.—Green tea. 623

37 Yanagida, K., Province of Yetshigo.—Black tea. 623

38 Imai, K., Province of Totomi.—Green tea. 623

39 Fukukawa, S., Province of Totomi.—Green tea. 623

40 Ozaki, I., Province of Suruga.—Green tea. 624

41 Minobe Chiubeye, Kiyoto.—Green tea. 623

42 Nagaya Buyemon, Kiyoto.—Tea. 623

43 Asada Toyemon, Kiyoto.—Green tea. 623

44 Kambayashi, Sansho & Sannin. Uji, Province of Yamashiro.—Tea, implements and apparatus used for the preparation. 623

45 Kiriu-Kosho-Kuwaisha (First Japanese Manufacturing and Trading Company), Tokio.—Tea. 623

46 Marunaka, M., Kanazawa, Province of Kaga.—Tea. 623

Marine Animals, Fish Culture, and Apparatus.

47 Kuwangiyo-Riyo (Imperial Board of Agriculture, Industry, & Commerce), Tokio.
- *a* Shells. 615
- *b* Shagreen and sturgeon skins. 616

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Animal and Vegetable Products, Textile Substances.

48 Kiriu-Kosho-Kuwaisha (First Japanese Manufacturing & Trading Company), Tokio.—Nets, baskets, hooks, rods, lines, and other apparatus used for fishing. 647

49 Nagasaki-ken, Local Government of.—Fishing implement and apparatus. 647

Animal and Vegetable Products.

50 Nagura, O., Kiyoto.—Vegetable isinglass. 650

51 Kuwangiyo-Riyo (Imperial Board of Agriculture, Industry, & Commerce), Tokio.
- *a* Hides, furs, horns. 652
- *b* Feathers of crane and pheasant. 653
- *c* Preserved fruits prepared with sugar. 656
- *d* Flour. 657
- *e* Starch. 658
- *f* Sugar. 659

52 Kumagai, K., Kiyoto.—Vegetable incense. 655

53 Kaitaku-shi (Department for Colonization of the Island of Yesso).—Preserved meat and fish. 656

54 City Chemical Laboratory, Kiyoto.
- *a* Sugar candy. 659
- *b* Mulberry wine, lemonade, punch, and other drinks. 660

55 Kamzaki, Tokio.—Sake, sweet liquors, spirits, and other alcoholic liquors. 660

56 Matsuya, H., Tokio.—Sweet liquors, wines, and malt liquors. 660

57 Sawada, Z., Tomo, Province of Bingo.—Sweet liquors. 660

58 Hashimoto, S., Tokio.—Spirits, sake, sweet liquors, and soy. 660

59 Kitakaze Yu, Hiogo, Province of Setzu.—Vinegars. 660

60 Naga-oka, Z., Tokio.—Soy and sweet liquors. 660

61 Mori, R. & K., Ito, Tokio.—Soy. 660

61*a* Nishi-wo Matsutaro, Kiyoto.—Yatsuhashiyaki (kind of cracknel). 661

Textile Substances of Vegetable or Animal Origin.

62 Government Cotton Factory, Sakai, Province of Setzu.—Cotton in raw state, and in all stages of preparation. 665

63 Maru, T., Province of Iwami.—Ramie, raw and prepared. 666

64 Hattori, Z., Province of Iwami.—China grass, spooled. 666

65 Asaya, T., Tokio.—Hemp, ramie, jute, etc. 666

66 Takamura, R., Province of Totomi.—Fibres. 666

67 Riu-kiu han, Loochoo Island.—Fibres of Musa-Basho, and China grass. 666

68 Kuwangiyo-Riyo-no-yosankakari (Government establishment for Experimental Silkworm-Breeding), Tokio.—Silk in cocoon and reeled. 668

69 Tamamura, Y., Ishi-i-mura, Province of Shimodzuke.—Silk, reeled. 668

70 Marunako, M., Kanazawa, Province of Kaga.—Silk, reeled. 668

Agriculture Engineering and Administration.

71 Kuwangiyo-Riyo (Imperial Board of Agriculture, Industry, & Commerce), Tokio.—Plows, scythes, harrows, and grain cradles. 670

Ornamental Trees, Shrubs, and Flowers.

72 Kuwangiyo-Riyo (Imperial Board of Agriculture, Industry, & Commerce).
- *a* Evergreen trees and shrubs. 700
- *b* Herbaceous perennial plants. 701
- *c* Lillies. 702
- *d* Ornamental foliage. 703
- *e* Ferns. 707
- *f* New plants, with origin. 708

Garden Tools, Accessories of Gardening.

73 Kuwangiyo-Riyo (Imperial Board of Agriculture, Industry, & Commerce), Tokio.—Fences, gates, etc. 722

Garden Construction.

74 Miyagi, C., Garden laid out by. 733

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

PHILIPPINE ISLANDS.

Arboriculture, Pomology, Agricultural Products.

Arboriculture and Forest Products.

1 Asuero, Eduardo, Province of Tarlac.—Dita bark. 600

2 Provincial Board, Province of Batangas.
a Peruvian Guaiacum bark. 600
b Maiden's hair. 604

3 Inspection-General of Woods and Forests.
a Timber, lumber, barks, charcoal, etc. 600
b Ornamental woods. 601
c Dye woods and barks. 602
d Gums and resins. 603

4 Olano, Casto, Manila, Province of Manila.—Section of Pterocarpus santalinus L. 601

5 Provincial Board, Province of Samar.
a Cane. 601
b Balao. 603

6 Jesus, Francisco de, Province of Pampanga.—Camanchile bark. 602

7 Provincial Board, Province of Masbate.—White pitch. 603

8 Cortina, Mariano de la, Bawang, Province of Batangas.—Abilo resin. 603

9 Orduña, Eduardo, Province of Batangas.—Resins and gums, macabuhay. 603

10 Labhart & Co., Province of Manila.—Mastic. 603

11 Provincial Board, Province of Tayabas.—White pitch. 603

12 Provincial Board, Province of Iloilo.—Seeds. 605

Pomology.

13 General Inspection of Woods & Forests.—Fruits. 611

14 Provincial Board, Province of Manila.—Cocoa nuts. 611

Agricultural Products.

15 Cirer, Manuel, Province of Tarlac.—Rice. 620

16 Arque, Benito, Province of Carite.—Rice 620

17 Salivia, Fulgencio, Province of Camarines, S.—Rice. 620

18 Santos, Apolinaria, Province of Bulacan.—Rice. 620

19 Rico, José, Province of Na Ecya.—Rice. 620

20 Otero, Manuel G., Province of Nva, Exija.—Rice. 620

21 Rodriguez, Ambrosio, Sariaya, Province of Tayabas.—Wheat. 620

22 Liñan, Diego, Province of Tarlac.
a Rice. 620
b Mongos. 622

23 Naves, Andres, Province of Bulacan.
a Anajao. 620
b Angolong hilive, tapican, etc. 622

24 Provincial Board, Province of Antigue.
a Rice. 620
b Cocoa and coffee. 623

25 Provincial Board, Province of Samar.
a Rice. 620
b Seeds. 624

26 Provincial Board, Province of Batangas.
a Maize and rice. 620
b Arbutra root. 622
c Cocoa and coffee. 623

27 Provincial Board, Province of Benguet.
a Rice. 620
b Beans. 621
c Coffee. 623
d Seeds. 624

28 Lorenzo, Catalino, Province of Pampanga.—Arrowroot. 622

29 Provincial Board, Province of Samar.—Cascalote, tabiguig, arbutra root, etc. 622

30 Valmaceda, Esteban, Province of Bataan.—Gogo. 622

31 Provincial Board, Province of Bulacan.—Matang-ulang and arbutra root. 622

32 Adriano, Lucia A., Province of Mindoro.—Yuro. 622

33 Provincial Board, Province of Masbate.—Gogo. 622

34 Reyes, Andres, Province of Samar.
a Sarsaparilla root. 622
b Laurel. 623

35 Provincial Board, Province of Mindanao.
a Gogo. 622
b Cocoa and coffee. 623

36 Orduña, Eduardo, Province of Batangas.
a Campnput root. 622
b Tuba and millet seed. 624

37 Rodo, Luciano P. de, Province of Cavite.—Coffee. 623

38 Provincial Board, Province of Mainba.—Cinnamon, pepper, etc. 623

39 Lopez, Felix, Province of Cavite.—Coffee. 623

40 Temprado, Ramon F., Province of Camarines Sur.—Coffee. 623

41 Gallardo, Francisco, Province of Bohol.—Coffee. 623

42 Sanz, Victor, San José, Province of Lepanto.—Coffee. 623

43 Spanish Nation, Province of Manila.—Leaf and manufactured tobacco, cigars, and cigarettes. 623

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Agricultural, Animal, and Vegetable Products.

44 Ruiz, Juan, Province of Laguna.—Coffee. 623

45 Velarde, Angel, Province of Cavite.—Cocoa and coffee. 623

46 Teodoro, Saturnino, Province of Tarlac.—Cocoa. 623

47 Mendosa, Gregorio, Province of Tarlac.—Coffee. 623

48 Alcántara, Dámasco, Sariaya, Province of Batangas.—Cocoa. 623

49 Hernandez, Telesoro, San José, Province of Batangas.—Coffee. 623

50 Catigbac, Norverto, Province of Batangas.—Coffee. 623

51 Ron, A., & Son, Province of Cebu.—Coffee. 623

52 Nieves, Agapito, Province of Albay.—Cocoa and coffee. 623

53 Saucian, Cirilò, Guinobatan, Province of Albay.—Cocoa and coffee. 623

54 Economical Society, Province of Benguet.—Tea leaves. 623

55 Nieves, Agapito, Province of Masbate.—Tea leaves. 623

56 Provincial Board, Province of Camarines Sur.
a Coffee. 623
b Lumbang seed. 624

57 Peñalosa, Andrès, Province of Batangas.
a Cocoa. 623
b Lumbang seed. 624

58 Prieto, Federico, Province of Albay.
a Coffee. 623
b Pili seed. 624

59 Rodriguez, Lucía, Province of Pampanga.—Seeds. 624

60 Provincial Board, Ilocos Sur.—Seeds. 625

61 Mamanal, Luisa, Province of Tarlac.—Indigo seed. 624

62 Dairit, Florentino, Province of Pampanga.—Lumbang seed, sesame seed. 624

63 Leonarde, Quinton, Province of Laguña.—Lumbang seed. 624

64 Baneg, Jo, Province of Bulacan.—Lumbang seed. 624

65 Provincial Board, Province of Pampanga.—Pili seed. 624

66 Peñaloso, Andres, S. Pablo, Province of Batangas.—Lumbang seed. 624

67 Guzman, Miguel de, Province of Bataan.—Canary seed. 624

68 Mora, José, Province of Mindoro.—Castor beans. 624

69 Liñan, Diego, Province of Tarlac.—Beneseed. 634

71 Argoncillo, Ramon, Province of Batangas.—Coffee. 624

72 Jesus, Francisco de, Province of Pampanga.—Indigo seed. 624

Land Animals.

73 Inspection-General of Woods & Forests.—Zoological specimens. 630

Water Animals, Fish Culture, and Apparatus.

74 Provincial Board, Province of Manila.—Tortoise and other shells. 645

75 Provincial Board, Province of Bohol.—Mother-of-pearl shells. 645

76 Macatangay, Jorgé, Province of Batangas.—Fishing nets. 647

77 Garun, Nicolás, Province of Manila.—Fishing nets. 647

78 García, Nicolás, Province of Manila.—Model of fishing net. 647

Animal and Vegetable Products.

79 Pagdangco, Gavino, Gumaca, Province of Tayabas.—Sponges. 650

80 Provincial Board, Province of Bohol.—Flying-fox skins. 652

81 Provincial Board, Province of Laguña.
a Buffalo horns. 652
b Cocoanut oil. 662

82 Provincial Board, Province of Manila.
a Varnished cowhides, cut hides, deer skins, shark skin, etc. 652
b Birds' nests and feathers. 652
c Pickled fish. 656

83 Osmeña, Rita, & Co., Province of Cebri.
a Buffalo horns and sigay. 652
b Perfume pastilles. 655
c Sugar. 659
d Cocoa oil. 662

84 Provincial Board, Province of Lepanto.—Honey. 654

85 Provincial Board, Province of Calamianes.—Virgin wax. 654

86 Estrada, Saturnino, Gumaca, Province of Tayabas.—Virgin wax. 654

87 Inspection-General of Woods & Forests.
a Wax and honey. 654
b Tapioca, sago, arrowroot, and other flours. 657

88 Casas, Calixta, Province of Cebu.—Perfume pastilles. 655

89 García, Regino, Province of Manila, Cavite, Bulacan, Laguña, and Isla Negros.—Hulled rice 657

90 Posar, José, Province of Mindora.—Hulled rice. 657

91 Pasig, Agustin, Province of Mindoro.—Hulled rice. 657

92 Provincial Board, Province of Cavite.—Hulled rice. 657

93 Albir, Benito, Province of Cavite.—Hulled rice. 657

94 Ocampo, Benigno de, Province of Pampanga.—Arrowroot flour. 657

95 Provincial Board, Ilocos Sur.—Arrowroot flour. 657

96 Rodriguez, Lucía, Province of Pampanga.—Arrowroot flour. 657

97 Bravo, Antonio, Province of Batangas.—Sugar. 659

98 Guisones, Joaquin, Province of Batangas.—Sugar. 659

99 Argoncillo, Ramon, Province of Batangas.—Sugar. 659

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Animal and Vegetable Products, Textile Substances.

100 Rico, Josè, Province of Nueva Ecija.—Sugar. 659

101 Macan, Luis, Calumpit, Province of Bulacan.—Sugar. 659

102 Aragon, Inocencia, Malate, Province of Manila.—Fruit syrups. 659

103 Garcia, P., Province of Manila.—Fruit syrups. 659

104 Provincial Board, Tananan, Province of Leyte.—Sugar. 659

105 Gonzalez, Victorina, Province of Antique.—Sugar. 659

106 Lirer, Manuel, Province of Tarlac. —Sugar. 659

107 Liñan, Diego, Province of Tarlac. —Sugar. 659

108 Puig, Josè, Province of Pampanga. —Sugar. 659

109 Ocampo, Manuel de, Province of Pampango.—Sugar. 659

110 Puig, Andrès, Province of Pampanga.—Sugar. 659

111 Miranda, Bernardo V. de, San Fernando, Province of Pampanga.—Sugar. 659

112 Lorenzo, Catalino, Province of Pampanga.—Sugar. 659

113 Sasatin, Leoncia, Province of Pampanga.—Sugar. 659

114 Buison, Julian, Province of Pampanga.—Sugar. 659

115 Jesus, Laureano, Province of Pampanga.—Sugar. 659

116 Enison, Catalino, Province of Pampanga.—Sugar. 659

117 Ocampo, Benigno de, Province of Pampanga.—Sugar. 659

118 Leon & Santos, José, Province of Pampanga.—Sugar. 659

119 Puig, Andrès, Province of Pampanga.—Sugar. 659

120 Gil, Rafael, Province of Pampanga. —Sugar. 659

121 Tison, Josè, Province of Pampanga. —Sugar. 659

122 Ker, Benito, Province of Pampanga.—Sugar. 659

123 Rosa & Son, Province of Cebù.— —Sugar. 659

124 Onchica, Andrès, Province of Laguña.—Sugar. 659

125 Provincial Board, Province of Antigue.—Sugar. 659

126 Provincial Board, Province of Mindanao —Sugar 659

127 Jesus, Francisco de, Province of Pampanga.
a Sugar. 659
b Alcohol. 660

128 Rodriguez, Lucia, Province of Pampanga.
a Sugar. 659
b Sesame and lumbang oils. 662

129 Leon, Celestino de, Province of Pampanga.
a Sugar. 659
b Beneseed oil. 662

130 Inchausti & Co., Province of Manila.—Alcohol. 660

131 Reyes, Vicente, Province of Laguña.—Cocoa wine. 660

132 Besa Santos, Mateo, Province of Manila.—Palo-maria oil. 662

133 Provincial Board, Province of Samar.—Cocoanut oil. 662

134 Maringan, Jocinto, Province of Batangas.—Beneseed oil. 662

135 Provincial Board, Province of Ilocos Sur.—Palo-maria and other vegetable oils. 662

136 Provincial Board, Province of Visayas.—Tagulanag oil. 662

137 Beso Santos, Mateo, Province of Bulacan.—Palo-maria oil. 662

138 Naves, Andrès, Province of Bulacan.—Cocoanut oil. 662

139 Banes, Jo, Province of Bulacan.—Lumbang oil. 662

140 Provincial Board, Province of Camarines N.—Balao oil. 662

141 Dairit, Florentino, Province of Pampanga.—Lumbang oil. 662

142 Tribula, Eleuterio, Province of Pampanga.—Lumbang oil. 662

143 Maceda, Leon, Province of Laguña. Cocoanut oil. 662

144 Provincial Board, Province of Pampanga.—Beneseed oil. 662

145 Orduña, Eduardo, Province of Batangas.—Lausina oil. 662

146 Inspection-General of Woods & Forests.—Vegetable oils. 662

147 Provincial Board, Province of Batangas.—Tuba and cocoanut oil. 662

148 Zugadi, Nicolàs, Provinces of Bulacan, Ilocos Sur, Leite, Batangas, and Camarines N.—Vegetable oils. 662

149 Provincial Board, Province of Bulacan.—Lumbang and beneseed oil. 662

Textile Substances of Vegetable or Animal Origin.

150 Macatangay, Agaton, Province of Batangas.—Cotton. 665

151 Reyes, Juana, Province of Batangas.—Cotton. 665

152 Dimayuga, Procesa, Province of Batangas.—Cotton. 665

153 Reyes, Juan, Province of Bohol.— Raw cotton. 665

154 Roa, A., & Son, Province of Cebù. —Cotton. 665

155 Beluyos, Damian, Province of Bataan.—Cotton. 665

156 Provincial Commission, Province of Benguet.—Cotton. 665

157 Orduña, Eduardo, Province of Batangas.
a Cotton. 665
b Textile vegetable substances. 666

158 Provincial Board, Province of Batangas.
a Coyote cotton. 665
b Textile vegetable substances. 666

159 Provincial Board, Province of Mindanao.
a Cotton. 665
b Balibago cords. 666

160 Gomez, Enrique, Province of Abra. —Textile substances. 666

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12-14.

Textile Substances, Machines, Implements.

161 Provincial Board, Province of Camarines Sur.—Abacá fibres. 666

162 Bravo, Antonio, Guagua, Province of Pampanga.—Balibago barks. 666

163 Provincial Board, Province of Samar.—Bonote. 666

164 Cortina, Mariano de la, Province of Batangas.—Maguey plant. 666

165 Provincial Board, Province of Manila.—Balibago fibres. 666

166 Argoncillo, Eustaquio, Lopez, Province of Tayabas.—Abacá fibres. 666

167 Figueroa, Andrés, Province of Albay.—Abacá fibres. 666

168 Rodriguez, José, Vigan, Province of Ilocos Sur.—Maguey. 666

169 Muñoz & Bros., Province of Albay.—Abacá and cabo-negro. 666

170 Provincial Board, Province of Camarines N.—Balibago fibres and abacá. 666

171 Gallegos, Tomás, Province of Albay.—Abacá lupiz. 666

172 Medina, Ildefonso, Province of Mindora.—Abacá. 666

173 Garcia, Cirilo, Guinobatan, Province of Albay.—Abacá. 666

174 Provincial Board, Burasun, Province of Leite.—Cabo-negro and Nabó. 669

175 Parochial Curate, Province of Pangasinan.—Textile substances. 666

176 Banson, Nicasio, Province of Bataan.—Textile vegetable fibres and samples of work. 666

177 Banson, Arcadio, Province of Bataan.—Dantin cord. 666

178 Provincial Board, Province of Pangasinan.—Textile vegetable fibres and samples of work. 666

179 Mangataren, Parson of, Pangasinan.—Alinoa bark and ropes. 666

180 Provincial Board, Province of Bohol.—Malacapas. 666

181 Jesus, Francisco de, Province of Pampanga.—Cord of thistle fibres. 666

182 Provincial Board, Province of Pampanga.—Textile vegetable fibres. 666

183 Vera, Rosa de, Province of Albay.—Nito. 666

184 Provincial Board, Province of Antigue.—Textile vegetable substances. 666

185 Llamas, Gabriel, Province of Manila.—Dugtung-ajas bindweed. 666

186 Provincial Board, Province of Albay.—Bark and abacá fibres. 666

187 Provincial Board, Province of Laguña.—Abacá. 666

188 Reyes, Andrés, Province of Samar.—Abacá. 666

189 Juan, Fernando, Tanauan, Province of Leite.—Abacá layajon. 666

190 Peñaflor, Ines, Province of Cavite.—Abacá. 666

191 Nieva, Calixto M., Province of Mindora.—Abacá. 666

192 Perfecto, Teodora, Province of Camarines Sur.—Abacá. 666

193 Gallegos, Tomás, Province of Batangas.—Abacá lupiz. 666

194 Perez, Agustin, Province of Albay.—Abacá fibres. 666

195 Rivera, Gregorio, Orion, Province of Bataan.—Balibago fibres. 666

196 Reyes, Juana, Lemery, Province of Batangas.—Prepared abacá. 666

197 San Isidro, Parson of, Province of Pangasinan.—Cabulagna roots, and oplit bark. 666

198 Esteves, Félipe, Province of Albay.—Nito and piña. 666

199 Adriatano, Luciano M., Province of Mindoro.—Cabo negro. 666

200 Zugadi, Nicolas, Province of Bulacan.—Nito. 666

201 Provincial Board, Province of Bohol.—Textile vegetable fibres, etc. 666

202 Buison, Julian, Province of Pampanga.—Bark of the buri palm tree. 666

203 Peele, Hubbell, & Co., Santa Mesa, Province of Manila.—Abacá rigging. 666

204 Villamarzo, Tiburcio, Province of Tayabas.—Cabo-negro cables, nabo and pasao fibres. 666

205 Rivera, L. de, Province of Bataan.—Bark of the malacacas tree. 666

206 Panda, Corporation of, Province of Antigue.—Pineapple leaf fibres. 666

Machines, Implements, and Processes of Manufacture.

207 Provincial Board, Province of Bulacan.—Plows. 670

208 Garcia, Nicolas, Province of Manila.—Model of a sugar cane mill. 673

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

ANNEXES AND SPECIAL EXHIBITS IN THE DEPARTMENT OF AGRICULTURE.

No. 69. CANADIAN LOG HOUSE.

Size, 40 feet by 64.

CANADIAN COMMISSION.

Is one story high, constructed of logs, and located close by the British Government Buildings. Its materials and contents constitute an exhibit of Canadian arboriculture and forest products.

1 Quebec Advisory Board, Quebec.
a White pine logs.
b Sugar maple.
c Ash birch.
d Chestnut elm.
e Hemlock butternut.
f Yellow pine, red cherry.
g Spruce cedar.
h Black walnut.
i Poplar oak.
j Pear wood.

2 Quereus & Genana, Victoria, B. C.—Oak.

3 Canadian Commission, Victoria, B. C.—Arbutus.

4 George, D. F., Fredericton, N. B.—Clapboards.

5 Moody & Nelson, Victoria.
a Native woods, etc.
b Shingles.

6 Layard, W. P., Victoria.—Oak flooring, etc.

7 Dawson, W. G., Victoria.—Axe-handles.

8 Layard, W. P., Victoria, B. C.—Pine.

9 Cusack, H. P., Newberry.—Flour barrel hoops.

10 Richardson, Peter, Chatham.—Hoops.

11 Lactinbros, Wm., Quebec.—Yellow pine planks.

12 Rochester, I., Ottawa.—Yellow pine, etc.

13 Head, James S., Ottawa.—Pine shingles.

14 Perley & Patton, Ottawa.—Yellow pine laths.

15 Silliman, James R., Toronto.—Pine lumber, etc.

16 Oliver, John, Toronto.—Chestnut, ash, oak, etc.

17 Colwell, H., & Son, Ontario.—Ash.

18 Young, Levi, Quebec.—Board lumber.

19 Bronsons & Weston, Ontario.—White pine.

20 Lachlaw, W., Bros., Arnprior.—Pine.

21 Canadian Commission, Victoria, B.C
a Daglos pine.
b Dogwood.

22 Newell, George, Ottawa.—Ash columns.

23 New Brunswick Advisory Board.
a Woods, etc.
b Maple logs.
c Ash logs.
d Birch logs.
e Squared birch.

24 Canadian Commission, Victoria, B. C.—Mouldings.

25 Hayward & Jenkinson, Victoria, B. C.—Mouldings, etc.

No. 144. CUBAN ACCLIMATION GARDEN.

EMILE LACHAUME, Proprietor.

Contains a variety of tropical plants, etc. Situated south of Horticultural Hall.

No. 165. WAGON BUILDING.

Size, 144 feet by 196 feet.

Constructed of wood, one story high, situated north-east of Agricultural Hall, consists of three lines of sheds. Is used to display wagons, trucks, etc.

Arboriculture, Machines, Engineering, Administration, Vehicles.

Arboriculture and Forest Products.

1 Reppard, R. B., Savannah, Ga.—Yellow pine timber. 601

Machines, Implements, and Processes of Manufacture.

2 Decrow, A. W., Bangor, Maine.—Scavenger. 674

3 Lynch, Peter, Mt. Holly, N. J.—Hog scalders. 674

Agricultural Engineering and Administration.

4 Wenkenbach, W., & Sons, Philadelphia, Pa.—Beer wagon. 682

5 Keiser, Joseph, New York, N. Y.—Beer wagon. 682

6 Sebastian, Jacob, New York, N. Y.—Wagon and truck. 682

7 Crater, Charles H., North Kingsville, O.—Vehicle coupling. 682

8 Lehigh Car Manufacturing Co., Stemton, Pa.—Platform, spring wagon, truck wagon. 682

9 Studebaker Bros. Manufacturing Co., South Bend, Ind.—Farm, lumber, and express wagons. 682

10 Cortland Wagon Manufacturing Co., Cortland, N. Y.—Platform spring business wagon. 682

11 Jarboe, John W., New York, N. Y.—Paper model of wagon body. 682

12 Adgate, J. J., New York, N. Y.—Self-unloading wagon. 682

13 Carrè, W. W., New Orleans, La.—Lumber wagon. 682

14 Ressler, H. & G., Philadelphia, Pa.—Carts and wagons. 682

15 Server & Brenz, Philadelphia, Pa.—Wagons. 682

16 Mills & Combs, Wilmington, Del.—Wagon. 682

17 Rech, Jacob, Philadelphia, Pa.—Milk wagon. 682

18 Becker, Jacob, jr., Seymour, Ind.—Farmers' wagon. 682

19 Beggs, John, & Sons, Philadelphia, Pa.—Truck and wagon. 682

20 Lengert, George, & Son, Philadelphia, Pa.—Express wagons. 682

21 Winchester & Partridge Manufacturing Co., Whitewater, Wis.—Wagons. 682

22 Knickerbocker Ice Co., Philadelphia, Pa.—Ice wagon, and set of wheels. 682

23 Wright Spring Co., Denmark, Iowa.—Wagon springs. 682

24 Heytler, Frank, Burlington, Iowa.—Wagon. 682

25 Wilson, Childs, & Co., Philadelphia, Pa.—Wagons and carts. 682

26 Kramer, Jacob, New York, N. Y.—Dumping wagon. 682

27 French & Co., Davenport, Ia.—Piano truck. 682

28 Schauz, C., Philadelphia, Pa.—Business and express wagons. 682

29 Funck & Hertzler, Burlington, Ia.—Farm wagon. 682

30 Rauch, Charles, Cleveland, O.—Ice wagon. 682

31 Harrison, Lautz Bros., & Co., South Bend, Ind.—Dump wagon. 682

32 Austin, Tomlinson, & Webster Manufacturing Co., Jackson, Mich.—Lumber wagons. 682

33 Fish Bros. & Co., Racine, Wis.—Farm and California rack bed wagons. 682

34 Moline Wagon Co., Moline, Ill.—Farm and spring wagons. 682

35 Schuttler, Peter, Chicago, Ills.—Spring farm and freight wagons. 682

36 Kansas Manufacturing Co., Leavenworth, Kansas.—Farm wagons. 682

37 Milburn Wagon Co., Toledo, O.—Spring farm and freight wagons, sleds. 682

38 Stryker, Peter J., New Brunswick, N. J.—Self-loading excavator. 691

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

No. 166. POMOLOGICAL BUILDING.

Size, 182 feet by 192 feet.

Constructed of wood, one story high, situated east of Agricultural Hall. Is designed for the exhibit of fruits in season.

No. 167. BREWERS' BUILDING.

Architect, H. J. SCHWARZMANN.—Size, 272 feet by 96 feet.

Erected under the auspices of the United States Brewers' Association.

Constructed of wood in the style of Machinery Hall, and situated on Lansdowne drive, opposite the northeast corner of Agricultural Hall. It contains a model brewery, and exhibits the several processes of manufacturing malt liquors.

Agricultural, Animal, and Vegetable Products.

Agricultural Products.

1 White, John G., & Co., Philadelphia, Pa.—Barley and malt. 620
2 Schere, Solomon, Buffalo, N. Y.—Barley and malt. 620
3 Liebman's, S., Sons, Brooklyn, N. Y.—Malt. 620
4 Palin, Thomas, Brooklyn, N. Y.—Malt. 620
5 Pulling, A. C., New York, N. Y.—Malt. 620
6 Committee on Barley & Malt, New York, N. Y.—Barley and malt. 620
7 Perot's, Francis, Sons, Philadelphia, Pa.—Barley and malt. 620
8 Appleton, Wm., Albany, N. Y.—Malt. 620
9 Lill & Bullen, Chicago, Ill.—Malt. 620
10 Mueller, H., & Co., Cleveland, O.—Barley and malt. 620
11 McCredie, Thomas, Albany, N. Y.—Malt. 620
12 Pardee, Charles W., Oswego, N. Y.—Barley and malt. 620
13 Lynde, B. A., Buffalo, N. Y.—Malt. 620
14 Niagara Malt House, Buffalo, N. Y.—Malt. 620
15 Neidlinger, Schmidt, & Co., New York, N. Y.—Malt. 620
16 Poke, Charles, Chicago, Ill.—Malt. 620
17 Marsh, A. M., Buffalo, N. Y.—Malt. 620
18 Schmid, Bernheimer, & Co., Brooklyn, N. Y.—Malt. 620
19 White, Rufus P., New York, N. Y.—Malt and barley. 620
20 Akin, W. H., & Son, New York, N. Y.—Hops. 620
21 Weilbacher & Loewi, New York, N. Y.—Hops. 623
22 Franke, Louis, New York, N. Y.—Yeast. 620
23 Uhlman, Simon, New York, N. Y.—Hops. 623
24 Dole Bros., Boston, Mass.—Hops. 623
25 Schlesinger Bros., New York, N. Y.—Hops. 623
26 Tyler, George H., New York, N. Y.—Hops. 623
27 Scott, John R., & Co., New York, N. Y.—Hops. 623
28 Wheeler, Walter G. B., New York, N. Y.—Isinglass. 646
29 Howe & French, Boston, Mass.—Isinglass. 646
30 Chrisfield, Wm., & Son, New York, N. Y.—Isinglass. 646
31 Greenway, John, Syracuse, N. Y.—Ale and porter. 660
32 Hartung & Krantz, Honesdale, Pa.—Beer. 660
33 Meyerhofer, Carl, Poughkeepsie, N. Y.—Beer. 660
34 Miles, W. A., & Co., New York, N. Y.—Ale. 660

Animal and Vegetable Products.

35 Liebman, S., & Sons, Williamsburg, N. Y.—Beer. 660
36 Grecke, Philip, Philadelphia, Pa.—Ale, porter, and beer. 660
37 Hinckel, Frederick, Albany, N. Y.—Beer. 660
38 Yuengling & Sons, Pottsville, Pa.—Ale, porter, and beer. 660
39 Frauenheim & Vilsack, Pittsburg, Pa.—Beer. 660
40 Bergner & Engel, Philadelphia, Pa.—Beer. 660
41 Bolton, S., & Sons, Lansingburg, N. Y.—Ale. 660
42 Evans, C. H., & Co., Hudson, N. Y.—Ale. 660
43 Gardner, John, & Co., Philadelphia, Pa.—Ale and porter. 660
44 Smith, Robert, Philadelphia, Pa.—Ale. 660
45 Clausen, H., & Son, New York, N. Y.—Ale and beer. 660
46 Walker, J., & Co., Cincinnati, O.—Ale and porter. 660
47 Baltz, J. & P., Philadelphia, Pa.—Beer. 660
48 Blatz, Valentine, Milwaukee, Wis.—Beer. 660
49 Reuter & Alley, Boston, Mass.—Ale. 660

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

50 Walker, J., & Co., Cincinnati, O.—Ale. 660

51 Clausen, H., & Co., New York, N. Y.—Beer. 660

52 Anheuser, E., & Co.'s Brewing Association, St. Louis, Mo.—Malt liquor. 660

53 Pfannenstiel, C., Philadelphia, Pa.—Beer. 660

54 Ruppert, Jacob, New York, N. Y.—Beer. 660

55 Gukes, C., Philadelphia, Pa.—Ale. 660

56 Philip Best Brewing Co., Milwaukee, Wis.—Malt liquor. 660

57 Jones, David, New York, N. Y.—Malt. 620

58 Barbey, Peter, Reading, Pa.—Beer. 660

59 Feigh, Adrian, New York, N. Y.—Beer. 660

60 Kane, E., & Co., Brooklyn, N. Y.—Beer. 660

61 Rulsann & Horrman, Stapleton, N. Y.—Beer. 660

62 Hupfel's, A., Sons, New York, N. Y.—Beer. 660

63 Ziegele, Albert, Buffalo, N. Y.—Beer. 660

64 Schmitle & Kohne, New York, N. Y.—Beer. 660

65 Jos. Schlitz Brewing Co., Milwaukee, Wis.—Beer. 660

66 Mayer & Bachman, Staten Island, N. Y.—Beer. 660

67 Bechtel, George, Staten Island, N.Y.—Beer. 660

68 Grasser & Brand, Toledo, O.—Beer. 660

69 Ferris, H., & Son, New York, N. Y.—Ale. 660

70 Ehrel, George, New York, N. Y.—Beer. 660

71 Ebling, Philip & William, Morrisania, N. Y.—Beer. 660

72 Hoffman & Merkel, New York, N. Y.—Beer. 660

73 Loewer, Valentine, New York, N. Y.—Beer. 660

74 Urig, Joseph, St. Louis, Mo.—Beer. 660

75 Lemp, Wm. I., St. Louis, Mo.—Beer. 660

76 Elias & Betz, New York, N. Y.—Beer. 660

77 Mark, J. & F., Brooklyn, N. Y.—Beer. 660

78 Finck, A., & Son, New York, N. Y.—Beer. 660

79 Voigt, E. W., Detroit, Mich.—Beer. 660

80 Kuechle, Joseph, St. Josephs, Mo.—Beer. 660

81 Rose, Miss Sophie, Baltimore, Md.—Beer. 660

82 Boeuilein, C., Bro., & Co., Bennett's Station, Pa.—Beer. 660

83 Seiger, I., Baltimore, Md.—Beer. 660

84 Schlotterer, S., Philadelphia, Pa.—Beer. 660

85 Howard & Fuller, Brooklyn, N. Y.—Ale. 660

86 Schwaner & Amend, New York, N. Y.—Beer. 660

87 McKechnie, J. & A., Canandaigua, N. Y.—Ale and beer. 660

88 Philip Best Brewing Co., Milwaukee, Wis.—Beer. 660

89 Miles, Wm. A., & Co., New York N. Y.—Ale. 660

90 Hughes, H. R. & M., Pittston, Pa.—Ale. 660

91 Liebmann's, S., Sons, Brooklyn, N.Y.—Beer. 660

92 Hollender & Co., New York, N. Y.—Beer. 660

93 Lyman, T. C., & Co., New York, N. Y.—Ale. 660

94 Hawkins, Chas. P., New York, N. Y.—Ale. 660

95 Anheuser, E., Co.'s Brewing Association, St. Louis, Mo.—Beer. 660

96 Flanagan & Wallace, New York, N. Y.—Ale. 660

97 Besley's Waukegan Brewing Co., Chicago, Ill.—Ale. 660

98 Von der Horst, J. H., Baltimore, Md.—Beer. 660

99 Beadleston, Price, & Woerz, New York, N. Y.—Ale. 660

100 Stein, Conrad, New York, N. Y.—Beer. 660

Machines, Implements, and Processes of Manufacture.

101 Kampf, Stephen, Albany, N. Y.—Malt-shovels. 670

102 Lynde, B. A., Buffalo, N. Y.—Malt-shovels. 670

103 Knapp, S. P., New York, N. Y.—Malt shovels. 670

104 Beardsley, B. A., Waterville, N. Y.—Hop press. 673

105 Ingraham & Beard, Chicago, Ill.—Grain separater and grader. 673

106 Keastner, Chas., & Co., Chicago, Ill.—Feed-mills. 674

107 Haberman, S., New York, N. Y.—Beer-swimmer. 674

108 White's N. Y. Malt House, New York, N. Y.
a Plows, shovels, etc. 670
b Elevator buckets, etc. 674

109 White, John G., & Co., Philadelphia, Pa.—Malt-mill. 674

110 Roos, Aug., New York, N. Y.—Beer-cooler. 674

111 Zoller, A., Hoboken, N. J.—Barrel-washer, valves, and faucets. 674

112 Steubing, Henry, New York, N. Y.—Ice-swimmer. 674

113 Decker, John, & Son, Philadelphia, Pa.—Ice-swimmers, watering-can, funnels, and yeast-sieve. 674

114 Iron C'ad Can Co., New York, N. Y.—Apparatus for preserving ales, beer, etc. 674

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Machinery, Implements, Engineering, Administration.

115 Trottman & Ott, Philadelphia, Pa. —Cooler. 674

116 Spiess, Fr., New York, N. Y.—Malt-mill. 674

117 Schalk, C.W., Reading, Pa.—Malt-mill. 674

118 Hupfel, Adolf G., New York, N. Y. —Barrel-rolling machine. 674

119 Bergner, Theodore, Philadelphia, Pa.—Cork-driver, valves. 674

120 Otto, John M., Brooklyn, N. Y.— Beer-cooler, ice-swimmer, baskets. 674

121 Union Hardware Co., New York, N. Y.—Beer-coolers. 674

122 Kirby Bung Manufacturing Co., Cincinnati, O.—Bung machine and saw. 674

123 Cornell, G. B., Chicago, Ill.—Bung-bushes. 675

124 Union Machine Works, New York, N. Y.—Malt-mill. 674

125 Haas, Edward, Philadelphia, Pa.— Malt-mill, scourer, and cleaner. 674

126 Stoll, Chas., Brooklyn, N. Y.— Scales, malt-mill. 674

127 Bremer, J. L., Bro., & Co., New York, N. Y.—Grain-bags. 674

128 Littlejohn, L., New York, N. Y.— Bung-bushes and tools. 674

129 Spiess, Fr., New York, N. Y.— Pumps, belt-stretcher, shaving-machine. 674

130 Storms, James, Buffalo, N. Y.— Elevator buckets. 674

131 Gendar, W. F. & T. V., New York, N. Y.—Brewers' instruments. 674

132 Schmahl, Martin, New York, N. Y. —Copper-washing apparatus. 674

133 Woerle, W., Milwaukee, Wis.— Ice-swimmer. 674

134 Murphy, C. J., New York, N. Y.— Testing-still. 674

135 Hupfel, J. C. G., New York, N. Y.— Barrel-rinsing machine. 674

136 Woehrle, Chas., New York, N. Y. —Elevator buckets. 675

137 Burkhardt, G. F., & Co., Philadelphia, Pa.—Steep-tub. 675

138 Morrison, J., Portsmouth, N. H.— Hogshead. 675

139 Burkhardt, G. J., & Co., Philadelphia, Pa.—Vats and tanks. 675

140 Link, John, Cincinnati, O.—Barrels and kegs. 675

141 Fisher & Hall, Philadelphia, Pa.— Cedar tubs. 675

142 Smith, John M., & Son, Philadelphia, Pa.—Steep-tub. 675

143 Dieringer, C., Cincinnati, O.— Coopers' work. 675

144 Lutz, R. F., Wabash, Ind.—Kegs and staves. 675

145 Schwarzwallder & Son, New York, N. Y.—Kegs, barrels, and hogsheads. 675

146 Luckhaupt Bros., Columbus, O.— Kegs. 675

147 Wandelt, Samuel, Brooklyn, N. Y. —Tubs. 675

148 Seligsberg, Arnold, New York, N. Y.—Tubs, vats, malt-holders, and chests. 675

Agricultural Engineering and Administration.

149 White's N. Y. Malt House, New York, N. Y.—Carts. 682

150 Saal & Schlich, Philadelphia, Pa.— Beer wagon and machinery. 682

151 Wenkenbach, W. L., Philadelphia, Pa.—Beer-wagon. 682

152 Kiesler, Joseph, New York, N. Y. —Beer-wagon. 682

153 Brunner, August F., New York, N. Y.—Plan of ice-house. 683

154 Wisker, Aug., Boston, Mass.— Model of brewery. 683

155 Weilbacher, P., New York, N. Y.— Hop-kiln. 683

156 Stoll, Charles, Brooklyn, N. Y.— Model of brewery. 683

157 Holden, D. L., Philadelphia, Pa.— Drawings of ice and refrigerating machines. 683

158 Seligsberg, A., New York, N. Y.— Grain-box. 683

159 White's N. Y. Malt House, New York, N. Y.—Kiln flooring and furnace. 683

160 Bergner, Theodore, Philadelphia, Pa.—Malt turner and kiln. 683

161 Spangenburg, Schroeder, & Co., Milwaukee, Wis.—Wire kiln surface 683

162 Hughes, W. W., & Son., Philadelphia, Pa.—Malt-kiln, etc. 683

163 Hampel, Otto, New York, N. Y.— Model malt-kiln. 683

164 Lieber, Robert, Boston, Mass.— Model of brewery. 683

165 Korn, George W., Philadelphia, Pa. —Refrigerator. Brewers' store. 683

166 Shada, O. S., Philadelphia, Pa.— Block of coal. 101

167 German Rock Asphalt Co., New York, N. Y.—Cement flooring. 103

168 White's New York Malt House elevator, New York, N. Y.—Cement flooring. 103

169 Mock, Isidor, Brooklyn, N. Y.— Cement floors. 103

170 Meyers, A. G., New York, N. Y.— Compound for lining barrels. 103

171 Wehn, G. H., Philadelphia, Pa.— Artificial stone. 103

172 Doerchuck, Gustav, Brooklyn, N. Y.—Varnish. 202

173 Hatter, Carl, New York, N. Y.— Bottle-stoppers. 215

174 Brown & Jones, Waterville, N. Y. —Stove to dry hops. 222

175 Asten, William B., & Co., New York, N. Y.—Malt-bags. 229

176 Bremer, J. L., Bro. & Co., Philadelphia, Pa.—Seamless bags. 229

177 Tuchfarber, F., & Co., Cincinnati, O.—Show-cards. 262

178 Simon, A., New York, N. Y.— —Weather-vanes. 283

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Agricultural Engineering and Administration.

179 Wells, Hope, & Co., Philadelphia, Pa.—Metallic signs. 283
180 Trageser, John, New York, N. Y.—Copper work. 284
181 Toope, Charles, New York, N. Y.—Grate-bars. 513
182 Brown, A. & F., New York, N. Y.—Horizontal engine, shafting, pulleys, etc. 552
183 Vogt, Henry, & Bro., Brooklyn, N. Y.—Tubular boiler. 552
184 Brown, A. & F., New York, N. Y.—Shafting, pulleys, and hangers. 553
185 Albany Lubricating Compound & Cup Co., New York, N. Y.—Oil cups. 555
186 Niagara Steam Pump Works, Brooklyn, N. Y.—Pumps. 560
187 Schutte & Goehring, Philadelphia, Pa.—Pumps. 560
188 George F. Blake Manufacturing Co., New York, N. Y.—Steam pumps. 560
189 Zinsser, Wm., & Co., New York, N. Y.—Pumps. 560
190 Knowles Steam Pump Works, New York, N. Y.—Pumps. 560
191 Cope & Maxwell Manufacturing Co., Cincinnati, O.—Air pumps. 561
192 Krakovicz, F. O., Walkertown, Ind.—Ventilator. 562
193 Otis Bros., New York, N. Y.—Elevator. 563
194 Bawer, E., Brooklyn, New York.—Racking-off hose. 564
195 Maegerlein, Chas., Chicago, Ill.—Hose. 564
196 Fairbanks & Ewing, Philadelphia, Pa.—Scales. 571
197 Haas, Edward, Philadelphia, Pa.—Scales and hopper, etc. 571
198 Buffalo Scale Co., Buffalo, N. Y.—Scales. 571
199 Willing & Co., New York, N. Y.—Racking-cock. 587
200 Schmitz, Theodore, New York, N. Y.—Britannia measures. 587
201 Guth, H., New York, N. Y.—Brewers' instruments. 587
202 Tagliabue, Charles J., New York, N. Y.—Brewers' instruments. 587
203 Travis, M. W., New York, N. Y.—Weighing and measuring implements. 587
204 Fiederlin, F., New York, N. Y.—Mashing-machine. 587
205 Schafhaus, John, New York, N. Y.—Mashing-machine. 587
206 Schimper & Immen, Newark N. J.—Mashing-machine. 587
207 Spittler & Lang, New York, N. Y.—Mashing and shaving machine. 587

GREAT BRITAIN.

Animal and Vegetable Products, Engineering, Administration.

Animal and Vegetable Products.

1 Pickering, Jonathan, Stockton-on-Tees, England.—Must. 661

Agricultural Engineering and Administration.

2 Lawrence & Co., London, England.—Refrigerators. 68

CANADA.

Animal and Vegetable Products.

Animal and Vegetable Products.

1 Davis, T., & Bro., Toronto, Canada.—Porter and ale. 661
2 Keith & Son, Halifax, N. S.—Ale. 661

GERMANY.

(*West of Nave, Columns 1 to 4.*)

Agricultural Products.

Agricultural Products.

1 Schlemmer, August von, Hochheim, Germany.—Malt. 623

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

No. 168. THE HOUSE APIARY.

Size, 10 feet by 16 feet.

J. S. COE, Montclair, N. J.

Exhibits thirty-two colonies of Italian, Corinthian, and Cyprian bees at work making honey. Situated east of the Pomological Building.

No. 169. GUANO BUILDING.

Situated east of the Women's Pavilion, and north of Fountain Avenue. Is used for the exhibition of fertilizers.

No. 171. WINDMILLS.

1 Eclipse Windmill Co., Beloit, Wis.—Three windmills for pumping water, grinding, etc.
2 U. S. Wind Engine & Pump Co., Batavia, Ill.—Two windmills.
3 Stover Wind Engine Co., Greencastle, Pa.—One windmill.
4 Hartford Pump Co., Hartford, Conn.—One windmill for raising water by compressed air.

No. 172. HEADQUARTERS OF THE "PRACTICAL FARMER."

(Newspaper.)

Size, 10 feet by 16 feet.

J. R. GARRETSON, Proprietor, Rochester, N. Y.

Situated east of the Pomological Building. Office of the paper.

No. 173. HAY PRESS.

Architect, W. P. ROCKAFELLOW, Albany, N. Y.—Size, 48 feet front; wings, 12 by 20 and 12 by 24.

P. K. DEDRICK & Co., Albany, N. Y.

Exhibits the perpetual baling press.

No. 176. BOILER HOUSE.

Size, 40 feet by 100 feet.

Situated directly east of Agricultural Hall, contains two Mast sectional boilers, manufactured at Springfield, Ohio, 100 horse-power each, which furnish steam to the machines in Agricultural Hall.

STATED DISPLAYS.

The Stated Displays in the Agricultural Department of the International Exhibition are as follows:

AGRICULTURAL PRODUCTS.

Pomological Products and Vegetables	May 16th to 24th.
Strawberries	June 7th to 15th.
Early Grass Butter and Cheese	June 26th to July 6th
Early Summer Vegetables	June 20th to 24th.
Honey	June 20th to 24th.
Raspberries and Blackberries	July 3d to 8th.
Southern Pomological Products	July 18th to 22d.
Melons	August 22d to 26th.
Peaches	September 4th to 9th.
Northern Pomological Products	September 11th to 16th.
Autumn Vegetables	September 19th to 23d.
Cereals	September 25th to 30th.
Potatoes and Feeding Roots	October 2d to 7th.
Grapes	October 10th to 14th.
Autumn Butter and Cheese	October 17th to 21st.
Nuts	October 23d to November 1st.
Autumn Honey and Wax	October 23d to November 1st.

FIELD EXHIBITIONS.

Mowing Machines, Tedders, and Hay Rakes	June 26th to 30th.
Reaping Machines	July 5th to 10th
Fly-Casting Tournament	August 15th.

LIVE STOCK.

Horses	September 1st to 14th.
Dogs	September 1st to 8th.
Neat Cattle	September 21st to October 4th.
Sheep	October 10th to 18th.
Swine	October 10th to 18th.
Poultry	October 27th to November 6th

EXHIBITIONS OF LIVE STOCK.

1. The live stock display at the International Exhibition will be held within the months of September, October, and November, 1876; the periods devoted to each family being as follows: Horses, mules, and asses, from September 1st to 14th. Dogs from September 1st to 8th. Horned cattle, from September 21st to October 4th. Sheep, swine, and goats, from October 10th to 18th. Poultry will be exhibited from October 27th to November 6th.

2. Animals to be eligible for admission to the International Exhibition must be, with the exception of trotting stock, walking horses, matched teams, fat and draught cattle, of such pedigree that the exhibitor can furnish satisfactory evidence to the Chief of Bureau, that as applied to thorough-bred horses, as far back as the fifth generation of ancestors on both sides, they are of pure blood and of the same identical breed. As to short-horned cattle, they are registered in either Allen's, Alexander's, or the English herd-books. As to Holsteins, Herefords, Ayrshires, Devons, Guernseys, Brittanys, Kerrys, and other pure breeds, they are either imported or descended from imported animals on both sides. As to Jerseys, they are entered in the Herd Register of the American Jersey Cattle Club, or in that of the Royal Agricultural Society of Jersey. As to sheep or swine they are imported or descended from imported animals, and that the home-bred shall be of pure blood as far back as the fifth generation.

3. The term breed, as used, is intended to comprehend all family divisions, where the distinction in form and character dates back through years of separation; for instance, it is held that the progeny of a pure-blood Jersey and a pure-blood Guernsey is not a thorough-bred but a cross-bred animal, and, as such, is necessarily excluded.

4. In awarding prizes to animals of pure blood, the judges will take into consideration chiefly the relative merits as to the power of the transmission of their valuable qualities; a cardinal object of the Exhibition being to promote improvement in breeding stock.

5. In case of doubt relative to the age of an animal, satisfactory proof must be furnished or the animal will be subject to examination by a veterinary surgeon; and should the state of dentition indicate that the age has not been correctly stated, the person so entering as an exhibitor will be prohibited from exhibiting in any class.

6. The forms of classification for awards, as given under each head, are intended (except in the case of trotting stock, walking horses, matched teams, fat and draught cattle) to apply to the animals of any pure breed that are entered for competition.

7. The Exhibition being open to the world, it is of the first importance that the best of their kind only be brought forward, as the character of the stock will be judged by the general average of those exhibited.

8. Exhibitors will be expected to furnish their own attendants, on whom all responsibility of the care of feeding, watering, and cleaning the animals, and also of cleaning the stalls, will rest.

9. Forage and grain will be furnished at cost prices, at depots conveniently located within the grounds. Water can be had at all hours, ample facilities being provided for its conveyance and distribution throughout the stock yards.

10. Exhibitors must supply all harness, saddlery, vehicles, and other appointments, and all such must be kept in their appointed places.

11. The Commission will erect ample accommodation for the exhibition and protection of live stock, yet contributors who may desire to make special arrangements for the display of their stock, will be afforded facilities at their own cost. Fractious animals, whether stallions, mares with foals, or bulls, will be provided with stalls of suitable character.

12. All stalls will be regularly and distinctly numbered; corresponding numbers on labels of uniform character will be given to each exhibitor, and no animal will be allowed to pass from its stall without its proper number attached.

13. Numbers alone will distinguish stock in the show yards, preceding the awards of prizes.

14. The judges of live stock will make examination of all animals on the opening day of each serial show, and will for that day have exclusive entrance to the show yard.

15. No premium will be awarded an inferior animal, though there be no competition.

16. All animals will be under the supervision of a veterinary surgeon, who will examine them before admission, to guard against infection, and who will also make a daily inspection and report. In case of sickness the animal will be removed to a suitable inclosure especially prepared for its comfort and medical treatment.

17. When animals are taken sick, the exhibitors may either direct the treatment themselves, or allow the veterinary surgeon appointed by the Commission to treat the case. In this latter event the exhibitor will be charged for all expenses incurred. All possible care will be taken of animals exhibited, but the Commission cannot be held responsible for any injury or accident.

18. A ring will be provided for the display and exercise of horses and cattle.

19. On the last day of each serial show, a public auction may be held of such animals as the exhibitors may desire to sell. Animals may be sold at private sale at any time during their exhibition. During the period of a serial show, no animal, even in the event of being sold, will be allowed to be definitely removed.

20. An official catalogue of the animals exhibited will be published.

21. Exhibitors of thoroughbred animals must, at the time of making their entries, file with the Chief of the Bureau a statement as to their pedigree, affirmed or sworn to before an officer authorized to take affidavits, and the papers so filed shall be furnished to the Jury of Experts.

22. The ages of live stock must be calculated up to the opening day of the exhibition of the class to which they belong.

23. Sheep breeders, desiring to exhibit wool, the produce of the flocks, will display not less than five fleeces.

24. All animals must be entered according to the prescribed rules as given in forms of entry, which forms will be furnished on application to the Chief of the Bureau of Agriculture.

BREEDING HORSES.

Mares entered as breeding animals must have had foals within one year of the show, or if in foal, certificates must be furnished to that effect.

All foals exhibited must be the offspring of the mare with which they are at foot.

Awards will be made to respective breeds for pure bred turf stallions, six years and over; pure bred turf stallions, over four years and under six years; pure bred turf stallions, over two years and under four years; pure bred turf mares, six years and over; pure bred turf mares, over two and under six years.

Awards will be made for trotting stallions, six years and over; trotting stallions, over four years and under six; trotting stallions, over two years and under four; pure bred draught stallions, six years and over; pure bred draught stallions, over four years and under six years; pure bred draught stallions, over two years and under four years; pure bred draught mares, six years and over; pure bred draught mares, over two and under six years; trotting brood mares, six years and over; trotting fillies, over four years, and under six; trotting fillies, over two years and under four.

RUNNING AND TROTTING HORSES

Shall be judged according to their record up to August 15th, 1876, due regard being had to present condition.

Awards will be made for running horses having made fastest record; trotting stallions having trotted a mile within two-thirty; mares and geldings having trotted a mile within two-twenty-five.

WALKING HORSES.

Fast-walking horses, whether bred for agricultural purposes or the saddle, will compete in the ring for awards.

MATCHED TEAMS.

Awards will be made for matched teams having trotted a mile in two-thirty-five; matched stallions for heavy draught, over sixteen hands high, and over fifteen hundred pounds weight each; matched geldings for heavy draught, over sixteen hands high, and over fifteen hundred pounds weight each; matched mares for heavy draught, over fifteen hands high, and over fourteen hundred pounds weight each, matched mules for heavy draught, over fifteen and a half hands high, and over thirteen hundred pounds weight each.

BREEDING ASSES.

Awards will be made to respective breeds of pure bred jacks over six years; pure bred jacks over three years and under six; pure bred she-asses over six years; pure bred she-asses over three years and under six.

NEAT CATTLE.

No cow will be eligible for entry unless accompanied with a certificate that, within fifteen months preceding the show, she had a living calf, or that the calf, if born dead, was born at its proper time. No heifer entered as in calf will be eligible for a prize unless accompanied with a certificate that she had been bulled before the first of April, or presents unmistakable proof of the fact to the judges. No bull above one year old can be entered unless he have a ring in nose, and the attendant be provided with a leading stick, which must be used whenever the animal is taken out of stall.

Awards will be made for the best herd of each respective breed, consisting as follows: one bull, four cows, none under fifteen months.

Neat cattle, of each respective breed, will compete individually for awards: bulls, three years and over; bulls over two years and under three years; bulls over one year and under two years; cows four years and over; cows over three and under four years; cows or heifers in calf, over two years and under three years; yearling heifers. A sweepstake award will be made for the best bull of any breed. A sweepstake award will be made for the best cow of any breed.

FAT AND DRAUGHT CATTLE.

Animals entered as fat and draught cattle need not be of pure blood, but will compete on individual merits. Fat cattle must be weighed, and in general those will be judged best which have the greatest weight with the least surface and offal.

Awards will be made for best fatted steer of any age and breed; best fatted cow of any age or breed; most powerful yoke of oxen; most rapidly walking yoke of oxen; most thoroughly trained yoke of oxen; most thoroughly trained team of three or more yokes of oxen.

BREEDING SHEEP.

All sheep offered for exhibition must be accompanied with certificate to the effect that they have been shorn since the first of April, and the date given. If not fairly shorn, or if clipped so as to conceal defects, or with a view to improve the form or appearance, they will be excluded from competition.

Awards will be made to respective breeds for the best pen of five animals of same flock and including one ram, the ewes all having had living lambs the past spring.

Awards will be made to respective breeds for rams two years and over; shearling rams.

A sweepstake award will be made for the best ram, respectively of long, middle, and fine wooled breeds.

Awards will be made to respective breeds for ewes in pens of three, all having had living lambs; shearlings in pens of three.

A sweepstake award will be made for the best pen of three breeding ewes, respectively of long, middle, and fine wooled breeds.

FAT SHEEP.

Fat sheep entered for competition must be weighed, and in general those will be judged best which have the greatest weight, with the least surface and offal.

Awards will be made for pen of three best fatted sheep of each breed; pen of three best fatted sheep of any breed.

BREEDING SWINE.

Every competing sow above one year old must have had a litter, or be in pig, and the owner must bring proof of these facts if required. If a litter of pigs be sent with a sow, the young pigs must be sucklings, the offspring of the sow, and must not exceed the age of three months.

Awards will be made to respective breeds for the best pen of one boar and two breeding sows; for pen of sow and litter.

Awards will be made to respective breeds for boars two years old and over; boars one year old and under two years; boars between nine months and one year; breeding sows two years old and over; breeding sows one year old and under two years; pen of three sow pigs between nine months and one year.

A sweepstake award will be made for the best boar of any breed. A sweepstake award will be made for the best sow of any breed.

FAT SWINE.

Fat swine entered for competition must be weighed, and, in general, those will be judged best which have the greatest weight, with the least surface and offal.

Awards will be made for pairs of best fatted hogs of each breed; pairs of best fatted hogs of any breed.

DOGS.

Benches will be furnished free of charge. Exhibitors may themselves assume the cost of attendance upon their animals, but to provide for them who cannot conveniently attend the Exhibition, the Commission will assume the expenses of feeding and daily care, upon the payment of an attendance charge of three dollars upon each animal.

Awards will be made to respective breeds for dogs of two years and over; dogs of one year and under two; pups.

A sweepstake award will be made for the best foreign-bred dog of any breed. A sweepstake award will be made for the best home-bred dog of any breed.

Awards will be made to respective breeds for bitches of two years and over; bitches of one year and under two; bitch pups.

A sweepstake award will be made for the best foreign-bred bitch of any breed. A sweepstake award will be made for the best home-bred bitch of any breed.

POULTRY.

Poultry can only be exhibited in coops made after specifications furnished by the Bureau of Agriculture. The Commission will furnish coops and attendance upon payment of one dollar on each bird of the gallinaceous division, and two dollars on each pair of the aquatic division.

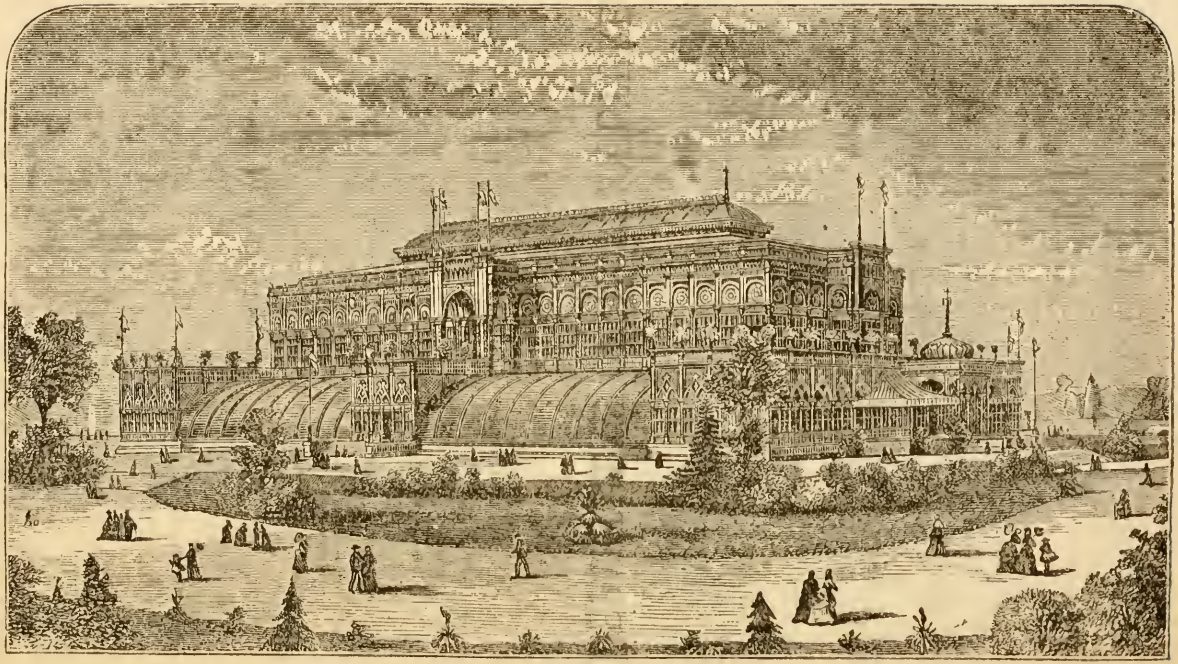
Awards will be made to respective breeds for pairs of one year and over, of chickens, turkeys, ducks, geese, swans, pigeons, guineas, and ornamental birds; for pairs under one year.

FISH.

Living fishes will be displayed in both fresh and salt water aquaria.

Awards will be made for largest display of fish of each species; largest display of fish of all species.

Department of Horticulture.



HORTICULTURAL HALL.

No. 151. HORTICULTURAL HALL.

Size 383 by 193 feet.

Architect, H. J. SCHWARZMAN.

Contractor, JOHN RICE, *Philadelphia.*

Wrought iron furnished by KEYSTONE BRIDGE COMPANY, *Pittsburgh, Pa.*

Cast iron furnished by SAMUEL J. CRESSWELL, *Philadelphia.*

Painting by JOSEPH CHAPMAN, *Philadelphia.*

Masonry by MOORE & SCATTERGOOD, *Philadelphia.*

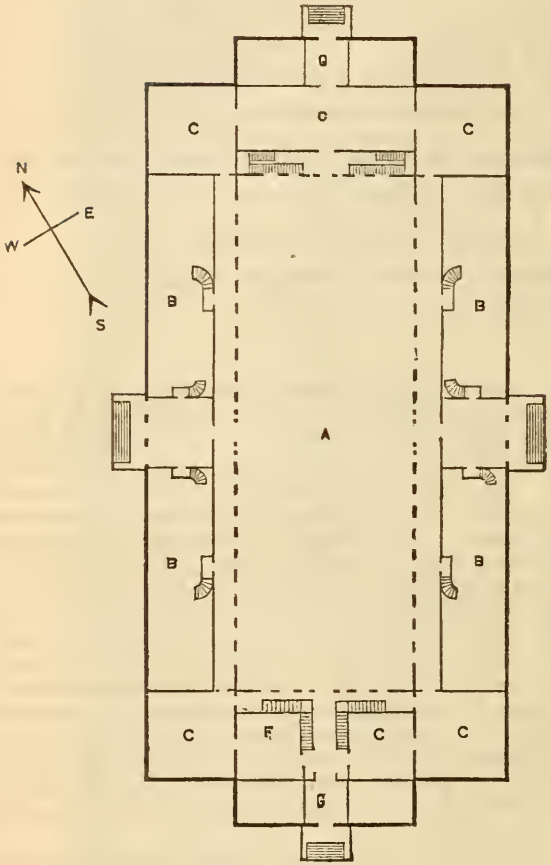
APPROPRIATIONS of the City of Philadelphia have provided the Horticultural Building, which is to remain in permanence as an ornament of Fairmount Park. It is on the Lansdowne Terrace, a short distance north of the Main Building and Art Gallery, and has a commanding view of the Schuylkill river and the northwestern portion of the city. The design is in the Moorish style of architecture of the twelfth century, the principal materials externally being iron and glass. The main floor is occupied by the central conservatory, 230 by 80 feet, and 55 feet high, surmounted by a lantern 170 feet long, 20 feet wide, and 14 feet high. Running entirely around this conservatory, at a height of 20 feet from the floor, is a gallery 5 feet wide. On the north and south sides of this principal room are four forcing houses for the propagation of young plants, each of them 100 by 30 feet, covered with curved roofs of iron and glass. Dividing the two forcing houses in each of these sides is a vestibule 30 feet square. At the centre of the east and west ends are similar vestibules, on either side of which are the restaurants, reception room, offices, etc. From the vestibules ornamental stairways lead to the internal galleries of the conservatory, as well as to the four external galleries, each 100 feet long and 10 feet wide, which surmount the roofs of the forcing houses. These external galleries are connected with a grand promenade, formed by the roofs of the rooms on the ground floor, which has a superficial area of 1800 square yards.

The east and west entrances are approached by flights of blue marble steps from terraces 80 by 20 feet, in the centre of each of which stands an open kiosque 20 feet in diameter. The angles of the main conservatory are adorned with eight ornamental fountains. In the basement, which is of fireproof construction, are the kitchen, storerooms, coal-houses, ash-pits, heating arrangements, etc.

The ground was graded and the foundations of Horticultural Hall laid on May 1st, 1875. The building was finished April 1st, 1876. It covers an area for exhibition purposes of 122,500 square feet, and cost about $300,000. This building will be permanent.

HORTICULTURAL HALL.

Scale, 80 ft. to 1 in.



A *Floral Hall.* B *Greenhouse.* C *Exhibits.* F *Offices.* G *Porch.*

Total Length, 350 ft. Width, 160 ft. Height, 65 ft.

CLASSIFICATION.

DEPARTMENT VII.—HORTICULTURE.

ORNAMENTAL TREES, SHRUBS, AND FLOWERS.

CLASS 700.—Ornamental trees and shrubs, evergreens.

CLASS 701.—Herbaceous perennial plants.

CLASS 702.—Bulbous and tuberous rooted plants.

CLASS 703.—Decorative and ornamental foliage plants.

CLASS 704.—Annuals and other soft-wooded plants, to be exhibited in successive periods during the season.

CLASS 705.—Roses.

CLASS 706.—Cactacea.

CLASS 707.—Ferns, their management in the open air and in ferneries, wardian cases, etc.

CLASS 708.—New plants, with statement of their origin.

CLASS 709.—Floral designs, etc.—Cut flowers, bouquets, preserved flowers, leaves, seaweeds. Illustrations of plants and flowers.—Materials for floral designs. Bouquet materials, bouquet holders, bouquet papers, models of fruits, vegetables, and flowers.

HOTHOUSES, CONSERVATORIES, GRAPERIES, AND THEIR MANAGEMENT.

CLASS 710.—Hothouse and conservatory plants.

CLASS 711.—Fruit trees under glass.

CLASS 712.—Orchids and parasitic plants.

CLASS 713.—Forcing and propagation of plants.

CLASS 714.—Aquatic plants under glass, or in aquaria, etc.

CLASS 715.—Horticultural buildings, propagating houses, hotbeds, etc., and modes of heating them. Structures for propagating and forcing small fruits.

CLASS 716.—Portable or movable orchard houses and graperies, without artificial heat. Frames, beds.

GARDEN TOOLS, ACCESSORIES OF GARDENING.

CLASS 720.—Tools and implements.—Machines for the transplanting of trees, shrubs, etc. Portable forcing pumps, for watering plants in greenhouses and methods of watering the garden and lawn.

CLASS 721.—Receptacles for plants.—Flower pots, plant-boxes, tubs, fern cases, jardinieres, etc. Window gardening. Plant and flower stands, ornate designs in iron, wood, and wire.

CLASS 722.—Ornamental wirework, viz.: fences, gates, trellis bordering of flower beds, porches. Park seats, chairs, garden statuary, vases, fountains, etc. Designations, labels, numbers.

GARDEN DESIGNING, CONSTRUCTION, AND MANAGEMENT.

CLASS 730.—Laying out gardens.—Designs for the laying out of gardens, and the improvement of private residences. Designs for commercial gardens, nurseries, graperies. Designs for the parterre. Books on gardening.

CLASS 731.—Treatment of water for ornamental purposes, cascades, fountains, reservoirs, lakes.

CLASS 732.—Formation and after-treatment of lawns.

CLASS 733.—Garden construction, buildings, etc.—Rockwork, grottoes. Rustic constructions and adornments for private gardens and public grounds.

CLASS 734.—Planting, fertilizing, and cultivating.

UNITED STATES.

Trees, Shrubs, Flowers, Hot-House Plants.

Ornamental Trees, Shrubs, Flowers, and Floral Designs.

1 Wharton, Joseph, Philadelphia, Pa.
—Eucalyptus globulus. 700

1a Bingham, Rodolphus, Camden, N. J.—Nelumbium luteum; sarracenia purpurea, drosera. 700

1b Bliss, G. K., & Sons, New York, N. Y.—Gladiolus, brenchleyeasis. 702

2 Lovering, Joseph S., Philadelphia, Pa.—Decorative foliage, plants, etc. 703

3 Graham, Hugh, Philadelphia, Pa.
a Decorative and ornamental foliage plants, palms, etc. 703
b Begonias, soft-wooded plants, etc. 704
c Ferns, in collection. 707
d Floral designs and cut flowers. 709

4 Pennock Brothers, Philadelphia, Pa.
a Foliage plants. 703
b Cut-flower designs. 709

4a Boyle, W. F., Philadelphia, Pa.—Decorative and ornamental foliage plants. 703

4b Compondu, Louis F., New Brighton, N. Y.—Variety of coleus. 703

4c Eagle, Louis J., Philadelphia, Pa.—Decorative and ornamental foliage plants. 703

4d Robertson, Thomas, Philadelphia, Pa.—Decorative and ornamental foliage plants. 703

5 The Misses Richardson, Philadelphia, Pa.—Cactus. 706

6 Fitzgerald, R., Philadelphia, Pa.—Cactus. 706

7 Miller & Sievers, San Francisco, Cal.
a Collection of Pacific coast cactus. 706
b Collection of ferns. 707

8 Such, George, South Amboy, N. J.
a Decorative and ornamental foliage plants. 703
b Cactus, in collection. 706
c New plants. 708

9 Moon, Mahlon, & Son, Morrisville, Pa.—Collection of ferns. 707

10 Dick, John, Philadelphia, Pa.
a Cactus. 706
b Ferns. 707

11 Miller & Hayes, Philadelphia, Pa.—Tree ferns from Australia. 707

12 Parsons, S. B., & Sons, Flushing, N. Y.
a Varieties of ferns. 707
b Skeleton plants. 709

13 Sturtevant, Edmund D., Bordentown, N. J.—Ferns. 707

14 Saunders, William, Washington, D. C.—New and rare plants. 708

14a Roehrs, I., New York, N. Y.—Begonia trœblie; entirely new begonia. 708

15 Freeman, J. R., Georgetown, D. C.—Seedling begonia (large leaved species). 708

16 Dreer, Henry A., Philadelphia, Pa.
a Ferns in ferneries and in wardian cases. 707
b Floral designs. 709

17 Henderson, Peter, New York, N. Y.—Wire designs for cut flowers, bouquet papers, and materials. 709

18 Marot, Charles H., Philadelphia, Pa.—"The Gardener's Monthly." 709

19 Parisian Flower Co., New York, N. Y.—Artificial tropical leaf-plants and bouquets. 709

20 Kresken, H. Acosta, Cincinnati, Ohio.—Preserved flowers, leaves, grasses, bouquets, baskets, crowns, etc. 709

20a Rice, D., & Co., Philadelphia, Pa.—Michaux and Nuttall's North American Sylva. 709

20b Huss, J. & Francois, Flushing, N. Y.—Japanese and American skeleton ferns. 709

20c Bayersdorfer, M. M., & Co., Philadelphia, Pa.—Bouquet fixtures formed in shape of a tree. 709

20d Kift, Joseph, & Son, Philadelphia, Pa.—Floral designs, cut flowers, bouquets, etc. 709

20e Peple, A., Brooklyn, N. Y.—Fancy grasses, baskets, etc. 709

20f Ringwalt, G. P. B., Philadelphia, Pa.—Autumnal leaves. 709

20g Smith, Stephen W., Philadelphia, Pa.—Preserved natural flowers. 709

20h Iles, F., Philadelphia, Pa.—Wire floral designs. 709

21 Cook, Mrs. O. A., San Francisco, Cal.—Preserved natural flowers. 709

22 Rolker, August, & Sons, New York, N.Y.—Preserved flowers and grasses, bouquet papers, tin foil, wire, frames, etc. 709

23 Leopold, Emil L., New York, N. Y.—Fancy flower baskets, in straw, different shapes and styles. 709

24 Le Moult, Adolphe, New York, N. Y.—Preserved flowers, representation of a lake with natural water lilies. 709

25 Jansen, Edward, 104 West 18th street, New York, N. Y.—Fancy flower baskets, imitation coral, white gilt, straw, brown willow, and fancy wire. 709
Fine novelties will be out for the coming fall season. Sample cards and price lists sent on application.

26 Rue, Miss Lizzie, Philadelphia, Pa.—Models of fruits and flowers. 709

27 Williamson, A. & H. A., 438 N. 8th St., Philadelphia, Pa.—Wax models of fruits, vegetables, flowers, ferns, autumn and foliage leaves. 709
Instructions given and orders executed. 32 premiums awarded.

28 Moffatt, Isaac, Philadelphia, Pa.—Models of named American fruits, facsimile of choice specimens. 709

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12-14.

Hot-House Plants and Appliances, Gardening Implements.

29 Brossè, Madame S. C., San Francisco, Cal.—Collection of California sea mosses. 709

30 Long Brothers, Buffalo, N. Y.—Floral designs, comprising monograms, initials, etc. 709

31 Klag, Philip, New York, N. Y.—Preserved natural flowers. 709

31*a* Hazelehurst & Young, Philadelphia, Pa.—Cut flowers. (*Special concession to sell in the Exhibition grounds.*) 709

Hot-Houses, Conservatories, Graperies, and their Management.

32 Saunders, William, Washington, D. C.—Collection of American economic plants. 710

33 Graham, Hugh, Philadelphia, Pa.—Hot-house and conservatory plants, crotons, etc. 710

34 Lovering, Joseph S., Philadelphia, Pa—Hot-house and conservatory plants. 710

35 Price, Stephen S., Philadelphia, Pa.—Hot-house and conservatory plants. 710

36 Committee of the Congressional Library of the United States (Botanic Garden), Washington, D. C.—Officinal, medicinal, tropical, and semi-tropical plants. 710

37 United States Agricultural Department, Washington, D. C.—Officinal and medicinal plants, mahogany, cocoa, chocolate, guava, papaw, rose apple, etc. 710

38 Baldwin, Mrs. M. W., Philadelphia, Pa.—Hot-house and conservatory plants. 710

39 Zoological Society, Philadelphia, Pa.—Australian tree fern. 710

40 Bines, Samuel M., Philadelphia, Pa.—India rubber tree. 710

41 Merryweather, Ann E., Camden, N. J.—Aloe. 710

42 Sellers, John, jr., Philadelphia, Pa.—Hot-house and conservatory plants. 710

43 Cummings, William, Philadelphia, Pa.—Orange tree, banana, ivy, and date palm. 710

44 Faust, William F., Philadelphia, Pa.—Philodendron pertuosum and water lily. 710

45 Mackenzie, Thos. J., Philadelphia, Pa.—Hot-house and conservatory plants, plants of commerce. 710

46 Johnson, Joseph, Philadelphia, Pa.—Wax plant. 710

47 Cuthbert, Allen, Philadelphia, Pa.—Orange tree. 710

48 Carpenter, Mrs. George W., Philadelphia, Pa.—Collection of conservatory plants. 710

50 Abbott, Charles F., Philadelphia, Pa.—Century plants (green and striped), sago palm. 710

52 Agnew, Hannah M., Philadelphia, Pa.—Banana. 710

53 Morris, Galloway C., Philadelphia, Pa.—Hot-house and conservatory plants. 710

54 Hoffner, Jacob, Cincinnati, Ohio.—Sago palm over 100 years old, belonged to Robert Morris in 1776. 710

55 Stokton, John A., Philadelphia, Pa.—Fig tree. 710

56 Weightman, William, Philadelphia, Pa.—Hot-house and conservatory plants. 710

57 Hance, A., & Sons, Red Bank, N. J.—Cycas revoluta.

58 Schaffer, William L., Philadelphia, Pa.—Sago palms. 710

59 Cope, Alfred, Philadelphia, Pa.—Century plants. 710

60 Such, George, South Amboy, N. J.
a Ferns, hot-house, and conservatory plants. 710
b Orchids, etc. 712

61 Clark, E. W., Philadelphia, Pa.—Century plants. 710

63 Moon, Mahlon, & Son, Morrisville, Pa.—Variegated pineapple. 710

63*a* Sturtevant, Edmund D., Bordentown, N. J.—Orchids and parasitical plants. 712

64 Wilson, John G., New York, N. Y.—Portable green-house boiler, hot water pipe with vapor pan attached. 715

64*a* Myers, Thomas J., & Son, Philadelphia, Pa.—Green-house boiler for heating conservatories. 715

64*b* Dick, John, Philadelphia, Pa.—Boiler for heating green-houses, conservatories, etc. 715

64*c* Warner, James, Philadelphia, Pa.—Boiler for heating green-houses, etc. 715

65 Jordan Horticultural Co., St. Louis, Mo.—Heating apparatus for green-houses. 715

65*a* Hitchings & Co., New York, N. Y.—Corrugated fire-box, boilers, and base-burning water-heater for warming green-houses, conservatories, etc. 715

66 Smith & Lynch, Boston, Mass.—Portable boilers for heating green-houses. 715

67 Ellis, Charles R., New York, N. Y.—Base-burning boilers for heating green-houses, graperies, etc. 715

Garden Tools, Accessories of Gardening.

68 Allen, R. H., & Co., New York, N. Y.—Comstock sower and attachments. 720

69 Jones, John M., Palmyra, N. Y.—Horticultural and floricultural implements of various styles and modifications. 1st. Revolving-staff implements for pruning, transplanting, weeding, and cultivating. 2d. Implements to be used with one hand, for weeding, transplanting, and cultivating, and in one of its forms is very convenient and attractive for ladies' use. 720

69*a* Bliss, B. K., & Sons, New York, N. Y.—Hand seed-sower, fertilizer dropper. 720

69*b* Jenks, George E., Concord, N. H.—Portable sprinkler and fountain for irrigating and ornamenting lawns, etc. 720

69*c* Farra, L. D., Philadelphia, Pa.—Lawn sprinkler. 720

70 Wheeler, W. F., Boston, Mass.—Hose liquid distributor, watering pot, insect annihilator, for garden and field, liquid manure distributor. 720

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp 12–14.

Garden Ornaments, Accessories, and Designs.

71 Moon, Mahlon, & Son, Morrisville, Pa.
a Wheel hoe. 720
b Vase. 721
c Lead label. 722

72 Dreer, Henry A., Philadelphia, Pa.
a Tools and implements. 720
b Receptacles for plants, fern cases, etc. 721

73 Bingham, O. A., Keene, N. H.—Revolving flower stand. 721

74 Hews, A. H., & Co., North Cambridge, Mass.—Flower pots, hanging pots, ferneries, garden vases, etc. 721

75 Pierce, Mrs. M. R., New York, N.Y.—Window attachments and other improved flower stands with water receptacle, sprinkling pan, and draining saucer. 721

76 Chase, James, Rochester, N. Y.—Combined aquarium, plant stand, bird cage, and fernery. 721

77 McClunie, Thomas, Hartford, Conn.—Drainer and evaporator with globe attachments for pots, vases and hanging baskets. 721

78 Rolker, August, & Sons, New York, N. Y.—Flower pots, boxes, fern cases, flower stands, etc. 721

79 Hills, George, Plainville, Conn.—Revolving flower stand with fountain attachment. For hydrants, self-sprinkling, surplus water caught by drip-pan. 721

80 Perine, M., & Sons, Baltimore, Md.—Flower pots, stone and fancy earthenware. 721

81 Pennock Brothers, Philadelphia, Pa.—Wardian cases, ferneries with shades 721

82 Hess, John M., & Sons, Philadelphia, Pa.—Chandelier designs with baskets, hanging baskets, hanging ferneries, vases, etc. 721

83 Freeman & Smith, Racine, Wis.
a Aquaria, ferneries, fountains, vases, etc. 721
b Plant stands, flower-pot brackets, window boxes and shelves, tree-tub castors, etc. 722
Illustrated catalogues free. Goods packed flat for shipment.

84 Racine Hardware Co., Racine, Wis.
a Plant and flower stands, ferneries, aquariums, etc. 721
b Fountains, vases, settees, etc. 722

85 Galloway & Graff, Philadelphia, Pa.
a Parlor vases, window boxes, pots, fern cases, baskets, etc. 721
b Terra-cotta statuary, vases, tazzas, pedestals. 722

86 Page, W. H., & Co., Greenville, Conn.
a Plant stands. 721
b Trellises. 722

87 Chase, Benj., jr., Derry, N. H.—Round-tapering flower stakes. 722

88 Balderston, George, Colora, Md.—Sectional vases. 722

89 Henderson, Peter, Jersey City, N. J.—Pot, plant, garden, and veranda trellises. 722

90 Harvey & Adamson, Philadelphia, Pa.—Oriental and Japanese garden vases, statuary, etc. 722

91 The Floral Works, 58 Cortlandt st., New York, N. Y., E. A. Reeves, Treasurer.—Crystal self-acting fountains, and self-acting fountain-attachments for aquaria and bird-cages, very simple and reasonable in price. 722

92 Mott, J. L., Iron Works, New York, N. Y.— Garden statuary, vases, etc. 722

93 Sanguinetti, Percy A., Philadelphia, Pa.—Glass-covered metallic labels, tree-protecting boxes. 722

94 Mayer, Charles, Baltimore, Md.—Self-acting water fountain. 722

95 Ebert, John, Philadelphia, Pa.—Parlor self-driving fountain. 722

95*a* Iles, F., Philadelphia, Pa.—Wire baskets, flower stands, etc. 722

96 Mueller, Quackenboss & Co., Philadelphia, Pa.—Vases in artificial stone designs. 722

97 Brown, J. Morton, Philadelphia, Pa.—Grape-vine trellises. 722

98 Moorhead Clay Works, Philadelphia, Pa.—Terra-cotta vases. 722

Garden Designing, Construction, and Management.

99 Miller & Hayes, Philadelphia, Pa.—Designs for laying out gardens and improving country residences. 730

101 Weidenmann, Jacob, New York, N. Y.—Set of plans for beautifying and improving country homes; survey, drainage, planting, and general maps. 730

102 Heissinger, F. X., New York, N. Y.—Designs for landscape gardening. 730

103 McClunie, Thomas, Hartford, Ct.
a Designs for laying out gardens, and the improvement of public grounds. 730
b Essay on formation and after-treatment of lawns. 732
c Metallic lawn gutters, curb, and drain. 733

103*a* Bliss, B. K., & Sons, New York, N. Y.—Globe sun-dial, adapted to any latitude. 320

103*b* Shove, Geo. A., Dighton, Mass.—Designs for a sanatorium. 342

103*c* Phœnix Stone Manufacturing Co., Philadelphia, Pa.—Artificial stone. 715

103*d* Rion, James H., Winsboro', S. C.—Section of cork-oak raised from an acorn. 600

OUT-DOOR EXHIBITS.

Ornamental Trees, Shrubs, and Flowers.

1 Bingham, Rudolphus, Camden, N. J.—Water lilies. 702

1*a* Salt, James, Philadelphia, Pa.—Fig tree. 700

1*b* Bliss, B. K., & Sons, New York, N. Y.—Gladiolus brenchiliensis. 702

2 Mackenzie, Thomas J., Philadelphia, Pa.—Decorative foliage plants. 703

2*a* Wilson, Charles H., Lower Merion, Pa.—Collection of geraniums. 703

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

Garden Ornaments, Designs, Tools, Ornamental Plants.

2b Gibson & Bennet, Woodbury, N. J.
—Collection of verbenas. 703

2c Harris, Wm. K., Philadelphia, Pa.
—Collection of geraniums. 703

3 Dreer, Henry A., Philadelphia, Pa.
a Bulbous and tuberous-rooted plants. 702
b Ornamental foliage plants. 703
c Annuals and soft-wooded plants. 704
d Ferns, in ferneries and wardian cases. 707

3a Scott, Robert, Philadelphia, Pa.
a Collection of geraniums; Zonlaes geraniums. 703
b Collection of roses. 705

4 Maginly, Thomas J., Philadelphia, Pa.
a Annuals and other soft-wooded plants. 704
b Roses, in collection. 705

4a Marc, Gabriel, Woodside, N. Y.—Collection of roses. 705

5 Moon, Mahlon, & Son, Morrisville, Pa.
a Ornamental trees, shrubs, etc. 700
b Herbaceous plants. 701
c Gladiolus, dahlias, etc. 702
d Flowering and ornamental plants, etc. 703
e Soft-wooded plants. 704
f Roses, in collection. 705
g New plants. 708
h Allen's new American hybrid gladiolus, raised by C. L. Allen, Long Island, New York. 702
i H. E. Hooker's new grape Brighton, very early, hardy, and excellent.
j E. Y. Teas' new tri-colored cana, and new geraniums. 703
k Wm. H. Moon's collection of new clematis. 703

6 Felton, A. L., Philadelphia, Pa.
a Herbaceous perennial plants. 701
b Bulbous and tuberous-rooted plants. 702
c Annuals and other soft-wooded plants. 704

7 Sturtevant, Edmund D., Bordentown, N. J.
a Herbaceous plants. 701
b Ferns. 707

8 Such, George, South Amboy, N. J.
a Ornamental trees, shrubs, etc. 700
b Herbaceous perennial plants. 701
c Bulbous and tuberous-rooted plants. 702

9 Dick, John, Philadelphia, Pa.
a Ornamental trees, shrubs, etc. 700
b Decorative and ornamental plants. 703
c Soft-wooded plants. 704
d Roses. 705
e New plants. 708

10 Wilson, William C., Astoria (L. I.), N. Y.—Plants for flower beds. 703

11 Henderson, Peter, 35 Courtlandt st., New York, N. Y.—250 varieties of new and rare geraniums, comprising double zonale, silver tri-color and golden tri-color sorts; also a circular bed of 500 plants, representing the "massing" or "ribbon" style of gardening by the use of different colored leaves. Located on and near Agricultural avenue. 704

12 Meehan, Thomas, Philadelphia, Pa.
a Hardy trees and shrubs. 700
b New plants. 708

13 Zeller, Charles, Flatbush, Long Island, N. Y.—Monthly carnations, tropical plants, liliums, and cut-flowers a specialty. 701

14 Compondu, Louis F., New Brighton, N. Y.—Pansies. 708

15 Hance, A., & Son, Red Bank, N. J.—New hardy ornamental plants and trees. 708

16 Parsons, S. B., & Sons, Flushing, N. Y.
a Deciduous trees, evergreens, and shrubs. 700
b New plants from Japan. 708

17 Hoopes, Bro., & Thomas, West Chester, Pa.
a Conifers. 700
b Ivies. 703

18 Parsons, R. B., & Co., Flushing, N. Y.
a Evergreen trees and shrubs, conifers, rhododendrons, kalmias, etc., deciduous trees, magnolias, azaleas, etc. 700
b Roses, in collection. 705

19 Miller & Hayes, Philadelphia, Pa.
a Ornamental trees and shrubs. 700
b Decorative plants. 703
c Roses, in collection; Centennial geranium. 705

20 Buist, Robert, Philadelphia, Pa.
a Ornamental trees and shrubs, abies and retinospora, from Japan. 700
b Roses, in collection; Centennial geranium. 705
c New plants; clematis veronica from Japan. 708

21 Moore, Samuel H., junior, Philadelphia, Pa.—Fig tree. 700

22 Hexamer, F. M., New Castle, N. Y.—Begonia Froebelii, a new bedding plant, Mont Blanc, a new hybrid. 708

Garden Tools, Accessories of Gardening.

23 Peck & Skilton, Westville, Conn.
a Rustic goods for house. 721
b Rustic goods for grounds. 722

24 Mott, J. L., Iron Works, New York, N. Y.—Fountains, vases, statuary, and settees. 722

25 Hanson, F. O., Philadelphia, Pa.—Galvanized railing, fences, gates, seats, vases, etc. 722

26 Gossin, F., Philadelphia, Pa.—Terra-cotta vases. 722

27 Mitchell, Wilson, Philadelphia, Pa.—Potsilica (artificial stone) fountain basins, vases, tiles, etc. 722

28 Walker, M., & Sons, Philadelphia, Pa.—Wrought-iron railing, ornamental gates, farm and hurdle fence, wirework 722

29 Brown, J. Morton, Philadelphia, Pa.—Grape-vine trellises. 722

30 O'Brien Bros., Yonkers, N. Y.
a Hanging baskets, etc. 721
b Rustic gates, settees, chairs, stands, vases, etc. 722

31 Moorhead Clay Works, Philadelphia, Pa.—Terra-cotta vases. 722

31a Elmore, Daniel, Trumansburg, N. Y.—Settees and chairs. 722
(In grounds of American Restaurant.)

Garden Designing, Construction, and Management.

32 Sturtevant, Edmund D., Bordentown, N. J.—Rustic adornments. 733

33 O'Brien Bros., Yonkers, N. Y.—Rustic summer-houses, etc. 733

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

THE

PENNSYLVANIA RAILROAD

IS THE

GREAT TRUNK LINE

AND

FAST MAIL ROUTE

OF THE UNITED STATES.

PULLMAN PALACE CARS

ARE RUN OVER IT FROM

New York, Philadelphia, Baltimore, and Washington,

TO

CHICAGO, CINCINNATI, ST. LOUIS, and LOUISVILLE,

Making the QUICKEST TIME and passing through the MOST ATTRACTIVE SCENERY on the Continent.

EXPRESS TRAINS

Over this route run GREATER DISTANCES WITHOUT STOP than over any other railway in the World.

TICKETS AND FULL INFORMATION

Can be procured at 838 Chestnut Street, Corner Broad and Chestnut Streets, No. 116 Market Street, Depot, Thirty-second and Market Streets, Centennial Depot, Philadelphia, and at the offices of the Company in all principal cities and towns.

FRANK THOMSON,
General Manager.

D. M. BOYD, Jr.,
General Passenger Agent.

THE SUN NEWSPAPER

Is printed and published every day in the year, at 166, 168, and 170 Nassau Street, New York City. Its regular edition on secular days now (April, 1876) averages about **140,000**; its weekly edition over **88,000**; and its Sunday issue is nearly **100,000**. It thus prints and sells more than a million copies a week, which are read all over the United States. This is a circulation unprecedented in American journalism, and it is constantly on the increase. In proof of this, let the following figures testify. They show the number of copies of THE SUN printed every week during the year ending March 11, 1876.

WEEK ENDING		COPIES PRINTED.	WEEK ENDING		COPIES PRINTED.
March	20	849,382	September	18	860,358
	27	845,802		25	858,778
April	3	857,956	October	2	863,935
	10	863,556		9	870,820
	17	855,076		16	878,082
	24	858,270		23	874,625
May	1	869,542		30	876,160
	8	867,550	November	6	908,580
	15	877,450		13	852,372
	22	874,946		20	847,815
	29	866,276		27	836,248
June	5	873,782	December	4	845,378
	12	869,769		11	1,042,716
	19	880,348		18	956,294
	26	883,846		25	933,864
July	3	898,862	January	1	933,987
	10	867,574		8	952,201
	17	877,400		15	953,019
	24	876,282		22	969,910
	31	874,216		29	967,850
August	7	865,558	February	5	993,030
	14	875,982		12	1,024,647
	21	880,488		19	1,027,209
	28	870,502		26	1,014,766
September	4	872,211	March	4	1,014,993
	11	860,755		11	1,028,951
TOTAL		46,799,769			

In printing these papers, no less than three million four hundred and twenty-six thousand six hundred and ten (3,426,610) pounds of paper were consumed.

ADVERTISING RATES.

DAILY AND SUNDAY, 40 cents a line, ordinary advertising; large type, 80 cents; and preferred positions, 50 cents to $2.50, according to classification.

WEEKLY, 50 cents a line; no extra charge for large type. Preferred positions, from 75 cents to $2.00.

SUBSCRIPTION RATES.

DAILY (4 pages), by mail, **55c.** a month, or **$6.50** a year, postpaid; with Sunday edition, **$7.70.**

SUNDAY (8 pages), **$1.20** per year, postpaid.

WEEKLY (8 pages), **$1.20** per year, postpaid.

Address, THE SUN,
New York.

Garden Designing, Construction, and Management.

34 **Peck & Skilton, Westville, Ct.**—Rustic buildings. 733

35 **Lebanon Building & Paving Block Company, Lebanon, Pa.**—Building blocks of annealed slag paving. 733

35*a* **Seibrecht, H. A., & Co., New York, N. Y.**—Rock-work. 733

35*b* **Elmore, Daniel, Trumansburg, N. Y.**—Summer-houses and pagodas. 733

36 **Pacific Guano Co., Boston, Mass.**
a Machines, materials, staple products of the soil of the United States, specimen plants fertilized with guano. 734
b Commercial fertilizers, phosphatic, calcareous, etc. 681

37 **Boileau, A., New York, N. Y.**—Trained fruit trees. 734

38 **Austin, R., Camden, N. J.**—Cranberry vines. 734

39 **Miller & Sievers, San Francisco, Cal.**—Collection of cones of the Pacific coast, coniferæ. 605

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

GREAT BRITAIN.

Ornamental Trees, Shrubs, Tools, and Accessories of Gardening.

Ornamental Trees and Shrubs.

1 Veitch, James, & Sons, Royal Exotic Nursery, London.
a Collection of standard and dwarf rhododendrons, standard and dwarf hollies, standard Portugal laurels 700
b Collection of new Japanese coniferæ. 708

2 Waterer, Anthony, Knap Hill Nursery, Woking, Surrey.—Rhododendrons and azaleas (*in tent*). 700

3 Williams, B. S., Victoria & Paradise Nurseries, London.—Collection of new and rare plants, orchids, and ferns of recent introduction. 708

4 Bull, William, Chelsea, London.—Illustration of new and rare plants. 709

Garden Tools, Accessories of Gardening.

5 Barnard, Bishop, & Barnard, Norfolk Iron Works, Norwich.
a Lawn-mowers, garden-rollers, horse-reels, water-barrows, croquet-netting, espalier-trainers, etc. 720
b Garden-chairs. 722

6 Doulton, H., & Co., Lambeth, London.—Terra-cotta work, statue of Diana (heroic size), Amazon vase, and sundry other vases. 722

NEW ZEALAND.

Ornamental Trees and Shrubs.

Ornamental Trees and Shrubs.

1 New Zealand.—Esculent fern root. Will germinate if crushed and planted in rich soil and shady place; collection of ferns. 707

JAMAICA.

Hot-Houses, Conservatories, and their Management.

Hot-Houses, Conservatories, and their Management.

1 Thompson, Robert, Jamaica.—Collection of economic plants. 710

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12-14.

CANADA.

Gardening Appliances.

Garden Tools, Accessories of Gardening.

1 Wells, William, Beamsville, Ont.—Flower-pots and saucers. 721

2 Ahern, J. H., Paris, Ont.—Flower-pots and saucers. 721

3 Pratt, Chorless, London, Ont.—Flower-pots and saucers. 721

4 Welding, E., Brantford, Ont.—Flower-pots and saucers. 721

5 Farrar, G. H. & L. E., St. John, Q.—Fancy flower-pots. 721

6 Hobson, Walter, Quebec, Q.—Flower-pots. 721

FRANCE.

Ornamental Plants, Hot-Houses, Ornaments, Designs.

Ornamental Trees, Shrubs, and Flowers.

1 Roempler, L., Nancy.—Ornamental plants. 700

2 Leroy, Louis, Angers, Maine-and-Loire.—Ornamental plants and fruit trees. 700

3 Verdier, E., senior, Paris.—Gladiolus. 702

4 Verdier, Charles, Paris.
a Gladiolus. 702
b Roses. 705

4*a* Lacharme, Fr., Lyons.—A collection of roses; thirty-seven varieties originated and grown by exhibitor. 705

4*b* Allegatoire, Lyons.—New zonal double geraniums, originated and grown by exhibitor. 708

4*c* Sisley, Jean, Lyons.—New zonal geraniums, originated and grown by exhibitor. 708

5 Vilmorin, Andrieux, & Co., Paris.—Seeds, flowers, and vegetables. 709

Hot-Houses, Conservatories, Graperies.

6 Roempler, L., Nancy.—Hot-house plants. 710

7 Pinel, C. P., Paris.—Application of electricity to germination and fructification. 713

8 Lichtenfelder, Paris.—Monumental hot-houses. 715

Garden Tools, Accessories of Gardening.

9 Couette, La Briche, Seine.—Portable tents, kiosk, and sheds; folding arm-chairs, bedsteads. 722

10 Durenne, A., Paris.—Monumental fountain. 722

11 Lichtenfelder, Paris.—Garden furniture; elastic seats; iron gates and trellises. 72[illegible]

12 Thiry, J., jr., Paris.—Trellises and galvanized iron fences. [illegible]

13 Walcker, W., Paris.—Garden seats. 722

Garden Designing, Construction, and Management.

14 Bonvoisin, A., Paris.—Garden plans. 730

15 Duvillers, F., Paris.—Park and garden plans; books on parks and gardens. 730

16 Vilmorin, Andrieux, & Co., Paris.—Photographs of flowers, vegetables, and plants; samples of seeds. 730

17 Ratinet, Paris.—Rocky grotto. 733

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

GERMANY.

Garden Designing, Construction, and Management.

Garden Designing, Construction, and Management.

2 Eichler, Gustav, Sans Souci.—Plans for gardens. 730

AUSTRIA.

Garden Designing, Construction, and Management.

Garden Designing, Construction, and Management.

1 Pohl, Charles, Austria.—Standard currants and gooseberries. 734

NETHERLANDS.

Fruit Trees, Ornamental Plants, Flowers, Designing.

Ornamental Trees, Shrubs, and Flowers.

1 Galesboot, J. P. R., Amsterdam.—Fruit trees. 700

2 Boer, W. C., Boskoop.—Ornamental trees and shrubs. 700

3 Krelage, J. H., Haarlem.
a Bulbs. 700
b Collection of gladiolus, etc. 702

4 Nes, Az. P. van, Boskoop.—Trees, shrubs, and flowers. 700

6 Groenewegen, A. C., Haarlem.—The flowers of Haarlem. 709

Garden Designing, Construction, and Management.

7 Nes, Az. P. van, Boskoop.—Trained fruit trees. 734

8 Galesboot, J. P. R., Amsterdam.—Trained fruit trees. 734

SWEDEN.

Garden Tools.

Garden Tools, Accessories of Gardening.

1 Von Essen, H. H., Baron, Tidaholm.—Gardeners' Scissors. 730

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

ITALY.

Garden Decoration.

Garden Tools, Accessories of Gardening.

1 Foley, Margaret A., Rome.—Marble Fountain. 702

LUXEMBURG.

Ornamental Trees.

Ornamental Trees, Shrubs, and Flowers.

1 Suppert & Notting, Limpertsberg, near Luxemburg.—Rose trees. 705

HAWAII.

Ornamental Trees.

Ornamental Trees and Shrubs.

1 Hawaiian Islands.—Ferns. 707

ARGENTINE REPUBLIC.

Ornamental Plants, Designs.

Ornamental Trees, Shrubs, and Flowers.

1 Provincial Commission, Province of Santiago del Estero.—Cacti. 706

2 Fuente, Diego de la, Province of Corrientes.—Caraguata plant. 706

3 Gelos, Martin, Province of La Rioja.—Scarlet oak, coccus cacti. 706

4 Provincial Commission, Province of Mendoza.—Cacti. 706

5 Provincial Commission, Province of Cordoba.—Cacti. 706

Garden Designing, Construction, and Management.

6 Forkel, F., Province of Buenos Ayres.—Projected plan of the park "3d of February." 730

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12–14.

SPAIN.

Ornamental Trees, Shrubs, Flowers, Garden Designing.

Ornamental Trees, Shrubs, Flowers, and Floral Designs.

1 Lachaume, Jules, Havana, Cuba.—Collection of plants, cactus, new plants. 706

Hot Houses, Conservatories, Graperies, and their Management.

2 Lachaume, Jules, Havana, Cuba.—Agaves, euphorbias. 710

3 Poey, Juan, Havana, Cuba.—Forty plants presented to the U. S. Centennial Commission. 710

Garden Designing, Construction, and Management.

4 Lachaume, Jules, Havana, Cuba.—
a Physiology of plants. 730
b Rustic and stone work. 733

PHILIPPINE ISLANDS.

Ornamental Trees and Shrubs.

Ornamental Trees and Shrubs.

1 Philippine Islands.—Ferns. 707

No. 170. HORTICULTURAL ANNEX.

North of Horticultural Hall. Constructed of wood and iron, in the form of a tent, and covered with canvas. Designed for the exhibition of flowers and plants during the season.

For classes of exhibits, indicated by numbers at end of entries, see Classification, pp. 12-14.

THE

American Newspaper Union.

A. J. AIKENS, President.

New York Newspaper Union, 148 and 150 Worth St., New York.	315	Newspapers,	$3.00	per line,	per week.
Chicago Newspaper Union, 114 Monroe St., Chicago.	350	"	$3.50	"	"
Milwaukee Newspaper Union, 365 East Water St., Milwaukee.	120	"	$1.25	"	"
Aikens Newspaper Union, 143 Race St., Cincinnati.	200	"	$2.00	"	"
Southern Newspaper Union, 227 Second St., Memphis, Tenn.	145	"	$1.50	"	"
St. Paul Newspaper Union, 17 Wabashaw St., St. Paul, Minn.	73	"	$ .75	"	"

THE ORIGIN OF CO-OPERATIVE NEWSPAPER ADVERTISING.

Co-operative newspaper printing, as now practised, originated in Wisconsin twelve years ago. It is termed *co-operative* for the reason that one side of each of the newspapers is printed at a central office, and the paper sent in its half-printed state to the home office, where it is completed with editorials, local news, and other matter prepared by the editor or publisher. In December, 1846, the idea of co-operation, *with advertisements*, occurred to Mr. Aikens, while yet serving his time as an apprentice, in printing the message of President Polk on one side of a country newspaper of New England at Boston, and the other half being printed at the local office.

Mr. A. J. Aikens, a practical printer and business man, conceived the idea of reducing the cost of ready-printed paper, as it is now termed, to country publishers, by making an agreement with them to use a certain space in each of their papers for advertisements that he might procure. This plan of co-operation he put into practice twelve years ago, at the office of Cramer, Aikens & Cramer, Milwaukee. It at once became successful, leading to the establishment of co-operative newspaper printing-offices in Chicago, New York, St. Louis, Cincinnati, Memphis, St. Paul, and other places. There are now over two thousand newspapers printed upon the co-operative plan in the United States and Canadas, and the number is constantly increasing, it having more than doubled in the last five years. The enterprise is no longer an experiment, but an established success, and the system is one yielding manifold advantages to advertisers as well as to local publishers.

The American Newspaper Union

Is essentially national. The papers represented in it are located in all the States of the Union and in nearly five hundred county seats. They circulate over the whole area of the country from Maine to Colorado, distributing at least *one hundred copies every year to each square mile of the settled portions of the United States.*

Although, as a whole, the Union List is national, covering all sections, it is so made up of different members as to be susceptible of easy division into sections—East, Middle, West, South. The distribution of the papers is as follows:

New England	78	Illinois	117	Nebraska	15
New York	101	Michigan	86	Missouri	17
New Jersey	27	Wisconsin	98	Georgia	10
Pennsylvania	65	Tennessee	29	Alabama	32
Virginia	24	Kentucky	29	Louisiana	11
No. and So. Carolina	24	Minnesota	79	Mississippi	29
Ohio	122	Iowa	85	Other States	46
Indiana	81				

AGGREGATE CIRCULATION.

The circulation of these papers is large and constantly increasing. It is larger than the circulation of any other lists or combinations of country papers in the United States—the last aggregate weekly circulation being *seven hundred thousand seven hundred and thirty copies* (700,730).

SEND TO EITHER OFFICE FOR A CIRCULAR.

PH. J. LAUBER'S

Centennial Restaurant

NEAR HORTICULTURAL HALL, CENTENNIAL GROUNDS,

IMPORTER OF WINES.

RESTAURANT, 24 South Fifth Street,

PHILADELPHIA.

Corner of Belmont and Fountain Avenues,

NEAR THE LAKE.

FRENCH RESTAURANT,

LES TROIS FRÈRES PROVENCAUX.

The same which had such a great success in the Vienna Exhibition, in 1873.

CH. VERDIER,

of the MAISON DORÉE, of Paris, Proprietor.

Near the Lake, opposite the U. S. Government Building.

LONDON.



1873.

BY ROYAL LETTERS PATENT.

CORRY & Co.'S

COLD MEDAL GINGER ALE,

And other Pure Aerated Waters.

CROMAC SPRINGS, BELFAST, IRELAND.

Original Manufacturers (for exportation) of the world-renowned Ginger Ale, and proprietors, in perpetuity, of the celebrated Cromac Spring.

Established 1830. Beware of spurious imitations.

SEE STAND IN AGRICULTURAL HALL.

PARIS,



1875.



HIGGIN'S FACTORY FILLED SALT,

Which is prepared expressly for Dairy purposes, is admitted by all Curers and Packers who use it, to preserve Hams and Bacon in the finest possible condition, and to impart an unusually fine color and appearance to the fat; and its great purity makes it especially valuable for the curing of Butter and Cheese. It never cakes in the sack. Sample bags may be had gratis on application to Messrs. GEO. RAPHAEL & Co., Philadelphia.

Works—Northwich, Cheshire, England. Office Address—THOMAS HIGGIN & Co., 33, Tower Buildings West, Liverpool, England. Orders received by LOGAN & PRESTON, New York, and GEO. RAPHAEL & Co., Philadelphia.

Prize Medal



CLEEVE HOOPER, Junr.,

London 1874.



Leather, Hide and Bark Factor.

6, 7 & 8, NEW WESTON STREET,

BERMONDSEY, LONDON, S.E.,

ENGLAND.

Goods Bought or Sold for 2½ % Commission & del credere. Bankers, London Joint Stock Bank.

STATISTICAL APPENDIX.

STATISTICAL APPENDIX.

UNITED STATES.

THE United States of America occupy the entire width of the central portion of North America, between latitude 24° 30′ and 49° north, and from longitude 66° 50′ and 124° 30′ west. They are bounded, north, by New Brunswick, Canada (from which they are separated by the river St. Lawrence and the great lakes), and British Columbia; on the south, by Mexico and the Gulf of Mexico; east, by the Atlantic; and west, by the Pacific Ocean. Their greatest breadth, from Cape Cod, on the Atlantic, to the Pacific, near the parallel of latitude 42 degrees, is about 2600 miles. Their greatest length, from the northern boundary of Maine to Key West, in Florida, is about 1600 miles. Their mean length, from east to west, is about 1600 miles, and from north to south about 1300 miles. Their area, according to calculations founded on the report of the Commissioner of the General Land Office, for 1867, is 3,057,407 square miles, or 1,956,740,480 acres. This, however, is exclusive of the district of Alaska, in the extreme northwest of the continent, purchased from Russia, and comprising 577,390 square miles, or 369,529,600 acres. Including Alaska, the entire area of the United States and territories is 3,634,797 square miles.

Three mountain ranges, the Appalachian chain towards the east, the Rocky Mountains in the centre, and the Sierra Nevada in the west, divide the United States into four great regions. The first of these is the Atlantic slope, or all that portion lying east of the Appalachian or Alleghany range; the second, lying between the Appalachian and the Rocky Mountains, is known as the basin of the Mississippi and Missouri; the third is the country between the Rocky Mountains on the east and the Sierra Nevada on the west; the fourth extends from the Sierra Nevada to the Pacific Ocean, and is known as the Pacific slope.

The Appalachian or Alleghany mountains extend from the State of Mississippi northeast through the States of Alabama, Georgia, Tennessee, North Carolina, Virginia, Pennsylvania, New York, and Vermont, for about 1200 miles, at a variable distance of from 70 to 300 miles from the Atlantic coast, and with an average breadth of about 100 miles. Their mean height is from 2000 to 3000 feet, half of which consists in the elevation of the mountains over the adjacent plains, and the rest in the elevation of these plains above the sea. The White Mountains of New Hampshire, belonging to this chain, reach a height of 6226 feet, and the Black Mountain, of North Carolina, is 6732 feet above the level of the sea. The Rocky Mountains are a prolongation of the Mexican Cordillera, and some of their highest peaks attain to between 12,000 and 15,000 feet above the level of the sea. Their average altitude is about 8500 feet. The Sierra Nevada, or Snowy Mountains, are 10° to 12° west of the Rocky Mountains. Under different names, and with different altitudes, this range extends from the peninsula of lower California to Alaska, some of its passes being about 9000 feet, and its highest summits about 16,000 feet above the level of the sea.

The rivers of the United States are of great magnitude and importance. Of those flowing east and south the principal are the Mississippi and Missouri, which, with their tributaries, the Ohio, Arkansas, Red, Yellowstone, and Nebraska rivers, give to the interior an extent of inland navigation and a facility of communication unequaled on any other continent. Among the principal rivers flowing into the Atlantic, are the Hudson, Delaware, Susquehanna, Potomac, Savannah, and St. Johns. The Columbia, Sacramento, and Colorado flow into the Pacific Ocean. The Mississippi,

Alabama, Colorado (of Texas), and Rio Grande (the last named forming the boundary between Texas and Mexico), empty into the Gulf of Mexico. The area of the water-basins has been estimated as follows: Rivers flowing into the Pacific, 644,040 square miles; into the Atlantic, 488,877; into the Gulf of Mexico, 1,633,325 square miles, of which 1,257,457 are drained by the Mississippi-Missouri rivers. The coast-line on both oceans has a length of about 13,200 miles, excluding the numerous bays and sounds, besides 3600 miles on the great northern lakes.

The following table shows the area and population of each State and Territory:

STATES.	POPULATION IN 1870.	AREA IN SQUARE MILES.
Alabama,	996,992	50,722
Arkansas,	484,471	52,198
California,	560,247	188,981
Colorado,	39,864	104,000
Connecticut,	537,454	4,750
Delaware,	125,015	2,120
Florida,	187,748	58,268
Georgia,	1,184,109	58,000
Illinois,	2,539,891	55,410
Indiana,	1,680,637	33,809
Iowa,	1,194,020	55,045
Kansas,	364,399	81,318
Kentucky,	1,321,011	37,680
Louisiana,	726,915	41,346
Maine,	626,915	35,000
Maryland,	780,894	11,124
Massachusetts,	1,457,351	7,800
Michigan,	1,184,059	56,451
Minnesota,	439,706	83,531
Mississippi,	827,922	47,156
Missouri,	1,721,295	65,350
Nebraska,	122,993	75,995
Nevada,	42,491	104,125
New Hampshire,	318,300	9,280
New Jersey,	906,096	8,320
New York,	4,382,759	47,000
North Carolina,	1,071,361	50,704
Ohio,	2,665,260	39,964
Oregon,	90,923	95,274
Pennsylvania,	3,521,951	46,000
Rhode Island,	217,353	1,306
South Carolina,	705,606	34,000
Tennessee,	1,258,520	45,600
Texas,	818,579	274,356
Vermont,	330,551	10,212
Virginia,	1,225,163	38,348
West Virginia,	442,014	23,000
Wisconsin,	1,054,670	53,924
ORGANIZED TERRITORIES.		
Arizona,	9,658	113,916
Dakota,	14,181	150,932
District of Columbia,	131,700	64
Idaho,	14,999	86,294
Montana,	20,595	143,776
New Mexico,	91,874	121,291
Utah,	86,786	84,476
Washington,	23,955	69,994
Wyoming,	9,118	97,883
TERRITORIES NOT ORGANIZED.		
Alaska,		577,340
Indian,		68,991
Total,	38,558,351	3,602,424

In a country extending through 24° of latitude, and nearly 60 of longitude, the climate varies considerably. In the north, along the British frontier, the winter is very severe; during this season the snow is sufficiently abundant in New England to admit the use of sleighs, and the ice on the rivers strong enough to bear the passage of horses and wagons. As far south as Pennsylvania and New Jersey, the thermometer falls, in winter, below zero; rising, in summer, to nearly 100° Fahr. Along the Atlantic coast, between latitude 41° and 45°, the climate is colder in winter and warmer in summer, by nearly 10°, than in those parts of Europe which lie under the same parallels. Snow, however, rarely falls south of latitude 30°, nor is it frequently seen south of the Potomac, except on mountains. The mean annual temperature of Albany is about 49°; of New York and Cincinnati, about 51°; of Philadelphia, 54°; of Natchez, 65°, and of Cantonment Brooke, in Florida, 72°. The temperature along the Pacific is much higher than in corresponding latitudes on the eastern coast.

The Mississippi valley is very fertile. In the Eastern States there still exist large forests of valuable timber, such as beech, birch, maple, oak, pine, spruce, elm, ash, walnut; and, in the South, live-oak, water-oak, magnolia, palmetto, tulip tree, cypress, etc., remnants of the wooded region which formerly extended over the whole Atlantic slope, but into which great inroads have been made by advancing civilization. Apples, pears, cherries, and plums flourish in the North; peaches, melons, and grapes in the Middle States; pineapples, pomegranates, figs, almonds, and oranges in the South. Maize is grown from Maine to Louisiana, and wheat throughout the Union; tobacco as far north as Connecticut, and in the Western States south of Ohio. There is not much cotton raised north of 37°, though it grows as far north as 39°. Rice is cultivated in South Carolina, Georgia, Louisiana, and as far north as St. Louis, Mo. The sugar-cane grows as high as 33°, but does not thoroughly succeed beyond 31° 30′. The vine and mulberry tree grow in various parts of the Union; oats, rye, and barley throughout the North and the mountainous parts of the South; and hemp, flax, and hops in the Western and Middle States. The following figures, taken from the report of the ninth census (1870), will convey an idea of the extent of the annual productions of agriculture:

Spring wheat,	112,549,733	bushels
Winter wheat,	175,195,893	"
Rye,	16,918,795	"
Indian corn,	760,944,549	"
Oats,	282,107,157	"
Barley,	29,761,305	"
Buckwheat,	9,821,721	"
Rice,	73,635,021	pounds
Tobacco,	262,735,341	"
Cotton,	3,011,996	bales
Peas and beans,	5,746,027	bushels
Irish potatoes,	143,337,473	"
Sweet potatoes,	21,709,824	"
Wine,	3,092,369	gallons
Hay,	27,316,048	tons
Clover seed,	639,657	bushels
Grass seed,	583,188	"
Sugar (from cane),	87,043	hhds
Maple sugar,	28,443,645	pounds
Molasses,	23,564,469	gallons
Dairy Products.—Butter,	514,092,683	pounds
Cheese,	53,492,153	"
Milk sold,	235,500,599	gallons
Wool,	100,102,387	pounds
Wax,	631,129	"
Honey,	14,702,815	"

The same report gives the cash value of farms in the United States at $9,262,803,861; of farming implements and machinery, at $336,878,429; live stock, at $1,525,276,457.

Total estimated value of all farm productions, including betterments and additions to stock, $2,447,538,658. Value of orchard products, $47,335,189; products of market gardening, $26,719,229.

There were, at the same time, 8,690,219 horses, 28,074,582 cattle, 28,477,951 sheep, and 25,184,540 hogs.

Except a few small isolated fields, all the bituminous coal in the United States lies west of the Appalachian chain, where a vast series of coal beds stretch from the mountains west through Ohio, Indiana, and Illinois, parts of Kentucky and Alabama, into the State of Missouri, and as far as two hundred miles beyond the Mississippi. Anthracite coal is found most extensively in Pennsylvania; also in Western Virginia and the eastern portion of Ohio and Illinois. The oil-wells of northwestern Pennsylvania contain apparently inexhaustible stores of mineral oil or petroleum. Numerous salt-springs exist in New York, Virginia, Pennsylvania, and the Western States. Iron is distributed most abundantly through the coal measures in Pennsylvania, Ohio, Virginia, and Tennessee, the ore containing from 25 to 33 per cent. of metal. Iron ore also abounds in the Northwestern States; and that found in one part of Vermont yields 78 per cent. of iron. A large proportion of the ore found in this part of the Union is magnetic. Lead is found in various places, but more especially in Missouri, Wisconsin, and Illinois. In some parts of Wisconsin this ore yields from 60 to 70 per cent. of lead. Large deposits of copper have been found in Michigan, in the Lake Superior region. Gold, in large quantities, and silver, have been found in the States and Territories west of the Rocky Mountains. Gold has also been found in Virginia, the Carolinas, Georgia, and Tennessee. Quicksilver, zinc, manganese, with lime and building stone, are the other chief mineral products. The following figures are from the Statistics of Mining, Table VIII, Report of the Ninth Census (1870):

	VALUE OF PRODUCTS.
Anthracite coal,	$38,495,745
Bituminous coal,	35,029,247
Copper,	5,201,312
Gold, placer mined,	7,266,613
" hydraulic mined,	2,508,531
Quartz, gold and silver bearing,	16,677,508
Iron ore,	13,204,138
Lead,	736,004
Petroleum,	19,304,224

The mechanical and manufacturing establishments of the Union, in 1870, numbered 252,148, using steam-engines of 1,215,711 horse-power and 1,130,431 horse-power in water-wheels, and employing 2,053,996 hands. The amount of capital invested is $2,118,208,769; annual wages, $775,584,343; material used, $2,488,427,242, and the total products $4,232,325,442. The chief manufacturing States are Pennsylvania, New York, Massachusetts, Ohio, Illinois, New Jersey, Connecticut, and Rhode Island.

The importations for the year ending June 30th, 1875, were:

Merchandise,	$533,005,536
Gold and silver,	20,894,217
Total,	$553,899,753

Foreign exports, merchandise,	$14,157,611
Gold and silver,	8,275,013
Total,	$22,432,624

The gold value of domestic exports, during the same period, was $583,141 229.

In the length of miles of railway open to traffic, the United States exceeds all other nations, although in the proportion of miles of railway to miles of area, it ranks below some of the smaller and more densely populated states of Europe. The following figures, from Poor's "Railway Manual," illustrate the growth of the railway system in the United States:

In 1830, there were	. . . . .	23	miles	in operation.
" 1840, " "	. . . . .	2,818	"	" "
" 1850, " "	. . . . .	9,021	"	" "
" 1860, " "	. . . . .	30,635	"	" "
" 1870, " "	. . . . .	52,898	"	" "
" 1874, " "	. . . . .	72,623	"	" "

During the year 1874, the gross earnings were $520,466,016, of which $379,466,935 was for freight, and $140,999,081 for passengers. Net earnings, $189,570,958; dividends paid, $67,042,942.

The government of the United States is, by the Constitution, intrusted to three separate authorities, the executive, the legislative, and the judicial. The executive power is vested in a President, who is elected every four years, and is eligible for re-election. The legislative power is vested in two houses, the Senate and the House of Representatives, the President having a veto power, which may be overcome by a two-thirds vote of both houses. Two senators from each State are elected by the legislature thereof, for the term of six years; and representatives are chosen in each State, by popular vote, for two years. The number of Representatives for each State is allotted in proportion to its population, one for each 135,239.

The supreme judicial authority is vested in a Chief Justice and eight Associate Justices, who are appointed for life by the President, by and with the consent of the Senate.

The government of each State is on the same model as that of the general government. There is a governor chosen by popular vote, and a State legislature, similarly chosen, composed of two houses. Each State also has a constitution which prescribes its form of government.

The following statistics apply to the army and navy of the United States in 1875: The army consisted, July 1st, 1875, of 2204 commissioned officers, and 25,000 enlisted men; the navy of 175 vessels, with an armament of 1282 guns, 8500 men, 1254 commissioned, and 490 non-commissioned officers on the active list.

The postal service is conducted by the general government. During the fiscal year ending June 30th, 1875, it carried 601,921,520 letters, 117,215,850 stamped wrappers, 13,956,750 newspapers, and 31,094,500 postal cards. The money orders amounted to $75,425,854.

The telegraph lines belong to private corporations. Their total length, in January, 1875, was 75,000 miles; length of wires, 165,000 miles; number of offices, 6172; number of messages transmitted during the year 1874, 13,700,000.

Education is conducted by the separate States. In general the primary schools are supported by a property tax, and nearly all the States have school funds in addition, the income of which is distributed among the towns in proportion to the number of pupils educated. The gifts with which, during late years, private individuals have endowed institutions of learning, prove a growing appreciation of the claims of the higher education.

The following statistics are collated from the report of the ninth census, 1870:

PUBLIC SCHOOLS.

NUMBER OF SCHOOLS.	TEACHERS EMPLOYED.			PUPILS IN ATTENDANCE.		
	MALE.	FEMALE.	TOTAL.	MALE.	FEMALE.	TOTAL.
125,059	74,174	109,024	183,198	3,120,052	3,108,008	6,228,060

The schools "Not Public" are arranged under two headings: "Classical, Professional, and Technical," and "Other Schools."

"NOT PUBLIC" SCHOOLS (Classical, Professional, and Technical).

NUMBER.	TEACHERS.			PUPILS.		
	MALE.	FEMALE.	TOTAL.	MALE.	FEMALE.	TOTAL.
Classical, etc., 2,545	7,766	5,001	12,767	148,810	106,380	255,190
Other Schools, 14,025	11,389	13,688	25,077	353,134	373,554	726,688

INCOME.

	PUBLIC.	NOT PUBLIC.	
		CLASSICAL, PROFESSIONAL, AND TECHNICAL.	OTHERS.
From Taxation of Public Funds, ...	$58,855,507	$2,320,250	$570,282
" Endowments, ...	144,533	3,356,003	163,249
" Other Sources, including Tuition, .	5,030,633	11,999,654	12,962,615
	$64,030,673	$17,675,907	$13,696,146

The total number of libraries returned was 163,353, containing 44,539,184 volumes. Of these, 107,673 were private libraries, containing 25,571,503 volumes. In the opinion of the superintendent of the census, these results are "manifestly far below the truth."

The newspaper and periodical press comprised, in 1875, 7870 publications, divided as follows: Daily, 1718; tri-weekly, 80; semi-weekly, 107; weekly, 5957; bi-weekly, 24; semi-monthly, 106; monthly, 802; bi-monthly, 8; quarterly, 68.

GREAT BRITAIN.

THE following brief table is given (approximately) of the area, population, revenue, and commerce of the British Empire. It is not possible to give the exact figures, but for all practical purposes those now given will be sufficient. The colonies which exhibit are treated under their proper names.

NAME OF COUNTRY.	AREA IN SQUARE MILES.	POPULATION.	REVENUE.	PUBLIC DEBT.	IMPORTS AND EXPORTS.
Great Britain and Ireland,	122,518	31,857,338	$389,600,000	$3,555,100,000	$3,262,900,000
Indian Possessions, etc., .	1,558,254	240,000,000	243,500,000	550,310,000	472,390,000
Other Eastern Possessions,	25,264	3,150,000	10,714,000	8,766,000	160,710,000
Australasia, ...	3,087,000	2,105,000	53,570,000	219,150,000	365,250,000
North America, ...	3,620,500	4,000,000	21,915,000	107,140,000	209,410,000
Africa, ...	250,000	1,400,000	4,870,000	7,792,000	43,830,000
West Indies, ...	12,707	1,075,000	535,700	4,872,000	48,700,000
European Possessions, .	120	160,000	1,022,700	1,217,500	73,050,000
Various settlements, . .	96,171	200,000	2,678,500	3,165,500	24,350,000
Totals, ...	8,772,534	283,947,338	$728,405,900	$4,457,511,000	$4,660,590,000

The *United Kingdom of Great Britain and Ireland* is the full designation of the country more generally known as Great Britain or the United Kingdom. It includes the two large islands of Great Britain and Ireland, and the adjacent smaller islands, together with the Channel Islands and the Isle of Man.

The following table exhibits the area, in English square miles, and population, according to the last census of the several constituent parts:

	AREA.	POPULATION.
England, ...	50,922	21,495,131
Wales, ...	7,397	1,217,135
Scotland, ...	31,324	3,360,018
Great Britain, ...	89,648	26,072,284
Ireland, ...	32,481	5,411,416
Isle of Man, and Channel Islands, ...	394	144,638
	122,518	
Army and Navy, and Merchant Seamen, ...		229,000
		31,857,338

The island of Great Britain lies between latitude 49° 57′ 30″ and 58° 40′ 24″ north, and between longitude 1° 46′ east, and 6° 13′ west, and is the largest island in Europe. It is bounded on the north by the Atlantic, on the east by the North Sea, and on the south by the English Channel, and on the west by the Atlantic, the Irish Sea, and St. George's Channel. Its greatest length is about 608 miles, and its greatest breadth (from Land's End to the east coast of Kent), about 300 miles.

England, which may be roughly said to be divided from Scotland on the north by the Cheviot Hills and the Rivers Tyne and Solway, and from Wales by the Severn

and Dee, is, except on the west and north, for the most part a level country, so cultivated as to be highly productive. The other districts have mineral riches, as iron, tin, lead, copper, and coal, which make abundant amends for the poverty of their surface. Wales is generally mountainous, and also has great mineral wealth.

The greater part of the surface of Scotland is irregularly distributed into mountains and valleys, a very small proportion spreading into level plains. The eastern coast forms a waving, continuous, and rarely broken line; the western is extremely irregular, being deeply indented with bays and arms of the sea, and exhibiting steep promontories and mountainous islands. The whole country is physically divided into *Highlands* and *Lowlands*—the former comprehending the northwest, west, and central portions; the latter, generally speaking, the east coast and the country south of the Forth and Clyde.

Ireland is an island lying between 51° 26′ and 55° 23′ north latitude, and 5° 20′ and 10° 26′ west longitude. It is about 60 miles to the west of England. On three sides it is washed by the Atlantic Ocean, and on the east by the Irish Sea and St. George's Channel. Its greatest length is, from north to south, 306 miles, and from east to west 120 to 180 miles. Ireland is divided into the four provinces of Ulster, Leinster, Munster, and Connaught, which are again subdivided into 32 counties.

The geology of Great Britain is of peculiar importance. British geologists have given to the world the names whereby the various strata are known, and British rocks form the typical series of the earth's strata. The whole recognized series of stratified deposits occur in Britain, one or two only being more fully developed elsewhere; and it is only in these singular cases that the foreign equivalents are taken as the types. British geology is no less important from the influence it has had in the development of the country, its mineral wealth, especially the coal and iron, being the real sinew of Britain's wealth and power.

In the year 1874, there was produced from the ore nearly 6,000,000 tons of pig iron, value £16,476,372; and 385 ounces of gold were raised, value £1540. Copper, tin, lead, zinc, silver, and other metals brought the total value of metals produced up to £19,539,070. The aggregate value of all the minerals, metals, coal, etc., obtained in the United Kingdom in 1874, was £67,834,313. Included in this were 125,043,257 tons of coal, value £46,849,194.

The climate of Great Britain is mild and equable in a remarkable degree, the winters being considerably warmer and the summers colder than at places within the same parallels of latitude. The mean temperature of England is 49.5°, and of Scotland 47.5°.

Very few species of plants or animals are peculiar to Great Britain. The flora, for the greater part, resembles that of Germany; but in the south of England there is, as might be expected, a closer correspondence with that of the northwest of France; and some plants found in the Channel Islands and on the French coast appear nowhere in Britain but on the southwest coast of England. The mountains of Wales, Cumberland, and Scotland have a vegetation resembling that of Scandinavia more than that of the mountains of central or southern Europe. The state of the case is much the same as to the fauna. There are, however, many remarkable instances both of plants and animals, which, from these apparent relations to continental Europe, might be expected in Great Britain, and which are not indigenous to it; as, for instance, among plants, the Norway spruce, and among animals, the lemming, both common in Scandinavia. The progress of civilization and of cultivation has completely banished from Great Britain many of the animals which were once numerous, as bears, wolves, etc. On the other hand, many plants which were unquestionably introduced by man, have become thoroughly naturalized.

For administrative purposes, Great Britain with its surrounding islands (excepting the Channel Islands and the Isle of Man, which are under peculiar jurisdiction) is divided into 83 counties or shires.

The soil of Great Britain is almost exclusively devoted to the production of the two primary necessities of society,—breadstuffs (chiefly wheat, barley, and oats) and grass, roots, etc., as food for domestic animals. The annual value of the pastures and meadow hay is immense. The total extent of land returned in 1872, as being under all kinds of crops, bare fallow and grass, was 31,004,173 acres in Great Britain, 15,746,547 acres in Ireland, 88,573 in the Isle of Man, 18,026 acres in the island of Jersey, and 12,007 acres in the islands of Guernsey, Alderney, etc., making a total for the United Kingdom of 46,869,326 acres. The number of horses included in the agricultural returns was 1,808,259; the number licensed in Great Britain was 857,048; the number of others than agricultural horses exempt from license duty, was probably about 35,000; and the number belonging to the army at home may be stated at 15,000, which would bring the total number of horses in the United Kingdom up to 2,715,000. The total number of cattle returned for the United Kingdom in 1872, was 9,718,000; sheep, 32,246,000; pigs, 4,178,000.

Constabulary returns, based upon information obtained from farmers and others and received by the Boards of Guardians, show that in the year 1873, Ireland produced 469,563 quarters of wheat, 6,912,765 quarters of oats, 1,016,339 quarters of barley, 25,576 quarters of bere and rye, 48,375 quarters of beans and peas, 2,683,060 tons of potatoes, 4,429,967 tons of turnips, 515,690 tons of mangold wurzel, 278,923 tons of cabbage, 19,843 tons of flax, and 3,306,163 tons of hay. At the end of 1873, Ireland had 4,142,400 head of cattle, 4,482,053 sheep, 532,146 horses and 1,042,244 pigs.

The following table shows the condition of the textile industries of the United Kingdom, 1874:

	NO. OF FACTORIES.	HANDS EMPLOYED.
Cotton,	2,655	479,515
Woolen,	1,800	135,605
Worsted,	692	142,097
Flax,	449	128,459
Silk,	818	45,559
Shoddy,	125	3,431
Hemp,	61	5,211
Jute,	110	37,920
Hair,	27	1,211
Hosiery and other factorys,	557	27,667
Total,	7,294	1,006,675

The government of Great Britain is of the kind known as a "constitutional monarchy," in which the sovereign accepts of his dignity under an express agreement to abide by certain prescribed conditions. The sovereignty is hereditary in the family of Brunswick, now on the throne, and in the person of either a male or a female. The executive government of the United Kingdom is vested nominally in the crown, but practically in a committee of Ministers, commonly called the Cabinet, which has come to absorb the functions of the ancient Privy Council, the members of which, bearing the title of Right Honorable, are sworn "to advise the king according to the best of their cunning and discretion," and "to help and strengthen the execution of what shall be resolved." Though not the offspring of any formal election, the Cabinet is virtually appointed by Parliament, and more especially by the House of Commons, its existence being dependent on the possession of a majority in the latter body.

The powers of Parliament are politically omnipotent within the United Kingdom, its colonies and dependencies. It can make new laws, and enlarge, alter, or repeal those existing. Its authority extends to all ecclesiastical, temporal, civil, or military matters, as well as to altering or changing the constitution of the realm. Parliament is the highest court of law, over which no other has jurisdiction.

The budget estimates for the financial year 1875–76, laid by the Chancellor of the Exchequer before the House of Commons, April 15th, 1875, was as follows:

Total revenue,	£75,685,000
" expenditure,	75,266,000
" estimated surplus,	£419,000

The following figures show the numerical strength of the military force in the United Kingdom in 1875:

Cavalry,	13,358
Artillery,	19,418
Engineers,	4,020
Infantry,	55,590
Total,	92,386

The army estimates of March 31st, 1876, contain votes of money for four classes of reserves, as follows:

	MEN.
Militia,	139,018
Yeomanry cavalry,	15,130
Volunteers,	161,150
Enrolled pensioners and army reserve force,	32,000

The total force of the British army in India was stated, in the estimates of 1875–76, to amount to 63,197.

On the 1st of December, 1874, the navy consisted of 233 steamers and sailing vessels, manned by crews aggregating 60,000.

The following are the statistics for the year 1874 of the tonnage of British and foreign vessels (sailing and steam) entered and cleared at ports in the United Kingdom from and to foreign countries and British possessions:

	ENTERED.	CLEARED.	TOTAL.
British,	14,833,644	15,256,039	30,089,683
Foreign,	7,534,866	7,804,408	15,339,274
Total,	22,368,510	23,060,447	45,428,957

There were, in 1874, 20,872 vessels, with crews aggregating 203,606, and of a registered tonnage of 5,864,588.

On the 1st of January, 1875, there were 16,448 miles of railway open in the United Kingdom. The statistics of capital, passengers, receipts, and working expenses for the year 1874 were as follows: Total capital paid up (shares, loans), $2,970,456,106; number of passengers, 478,316,701; total of traffic receipts, $277,109,238; working expenses, $158,040,397.

The number of letters delivered in 1874 was, in England and Wales, 804,000,000, in Scotland, 90,000,000, and in Ireland, 73,000,000. Of postal cards there were 66,000,000 delivered in England and Wales; 9,000,000 in Scotland; and 4,000,000 in Ireland; total for the United Kingdom, 79,000,000.

The number of newspapers and book packets delivered in 1874 was 207,000,000 in England and Wales, 29,000,000 in Scotland, and 23,000,000 in Ireland; total, 259,000,000. The number of money orders in 1874, in the whole of the United Kingdom was 15,900,562, of the aggregate value of £26,296,441. At the end of the year the total amount of deposits held by the Post Office Savings Bank was £24,030,711.

There were 19,116,634 telegraph messages forwarded from postal telegraph stations in the year 1874. The number of post offices at the end of 1874 was 12,950. The total number of telegraph offices, at the same date, was 5600, including 1800 railway telegraph offices. The total length of the postal telegraph wires at the end of 1874 was 107,000 miles.

In England, the chief institutions for education are the ancient national universities of Oxford and Cambridge; the more recent institutions of London, Durham, and Lampeter, in Wales; the classical schools of Eton, Westminster, Winchester, Harrow, Charter House, and Rugby; Owens College, Manchester, and other colleges and schools, chiefly for physical science; the various military schools; the colleges of the dissenting denominations; the middle class schools, either started by individual teachers or by associated bodies acting as directors, to whom the teachers are responsible; and the schools of design.

For primary education, a national system has now been established. Under the Elementary Education Act for England, 1870, a popularly elected school board is established in any district where the existing schools are deficient. Schools under the act are supported by school-rates and fees, and by parliamentary grants, varying according to the number of pupils, and their proficiency, as tested by different standards of examination. They are at all times to be open to government inspection. It is left to the discretion of school boards to make education compulsory.

Scotland possesses four universities for the higher branches of education, viz.: Edinburgh, Glasgow, St. Andrew's, and Aberdeen, besides a variety of other minor colleges. The Scotch education act, 1872, is modelled after the English act, but differs from it by enacting that a school board is to be elected in *every* parish and burgh; by making it illegal for parents to omit educating their children, between five and thirteen, in reading, writing, and arithmetic; and by comprehending higher class schools.

The number of the day-schools in Great Britain, inspected in 1871, was 10,700; the daily average attendance throughout the year was 1,434,488; 1,724,689 scholars were present at inspection; 875,298 were examined; and 598,203 passed the prescribed tests. On the registers of the inspected day-schools were 2,055,312 children, of whom 517,344 were under six years of age, 1,332,229 between six and twelve, and 205,739 above twelve; 2709 night-schools, were inspected, having an average attendance of 86,206 each night. In December, 1871, there were in Great Britain 15,605 certificated teachers, 1196 assistant teachers, and 21,854 pupil teachers.

Ireland is well supplied with educational establishments, having three universities, a large number of endowed schools, and an admirable system of mixed schools.

Commission from GREAT BRITAIN and COLONIES to the International Exhibition:

HIS GRACE THE DUKE OF RICHMOND AND GORDON, K. G.,
Lord President of the Council.

THE RT. HON. VISCOUNT SANDON, M. P., Vice-President of the Committee of Council on Education.

THE RT. HON. SIR EDWARD THORNTON, K. C. B., Her Britannic Majesty's Envoy Extraordinary and Minister Plenipotentiary at Washington, Special Commissioner to represent Great Britain at Opening Ceremonies.

Executive Staff:

COL. HERBERT SANDFORD, R. A., Joint Executive Commissioner.

PROF. THOMAS C. ARCHER, F. R. S. E., Joint Executive Commissioner.

A. J. R. TRENDELL, Secretary.

T. A. WRIGHT, Superintendent Industrial Space.

JOHN ANDERSON, LL.D., Superintendent General Machinery.

JOSEPH MIDDLETON JOPLING, Superintendent Fine Arts.

B. T. BRANDRETH GIBBS, Superintendent Agriculture and Horticulture.

J. H. CUNDALL, Assistant General Superintendent and Engineer.

HUGH WILLOUGHBY SWENY, Assistant Superintendent Catalogue and Official Publications.

FREDERICK J. HODGKINSON, Financial Clerk.

E. E. COOPER, Assistant for Machinery.

ERNEST CHARRINGTON, Clerical Assistant.

J. M. BRETT, Clerical Assistant (India Section).

H. A. P. ROOKE, Clerical Assistant (Passenger and Transport Arrangements).

NEW ZEALAND.

NEW ZEALAND, a British colony in the South Pacific Ocean, consists of three principal islands, called, respectively, the North, South, and Stewart Islands. There are several small islets—mostly uninhabited—dependent on the colony; the chief of them are the Chatham Islands and the Auckland Islands. The New Zealand group is situated about 6500 miles west of South America, and about 1200 miles east of Australia. The entire group lies between 34° and 48° south latitude and 166° and 179° east longitude. The three principal islands extend in length 1100 miles, but their breadth is extremely variable, ranging from 46 miles to 250 miles; the average breadth being about 140 miles. The North and South Islands are separated by Cook Strait, which is crossed by steamers in about two hours.

The total area of New Zealand is about 100,000 square miles, or 64,000,000 acres.

According to a census taken March 31st, 1874, the population (exclusive of the aborigines) numbered 299,514 souls. It is estimated that the present white population (April, 1876) is about 400,000. The Maori population, according to an approximate census taken on June 1st, 1874, was 45,470.

The aborigines, called Maoris, who formerly caused much trouble, though a large number have always sided with the British, are now peacefully settling down to agricultural pursuits, and, since 1871, permanent tranquility appears to have been established.

The New Zealand Islands are of primitive rocks and tertiary plains, but a great portion of the entire area is occupied by mountains, among which are many extinct and a few active volcanoes. The mountains are mostly clothed with evergreen forests of luxuriant growth, interspersed with fern-clad ranges, and occasionally with treeless grassy plains. Extensive and rich valleys and sheltered dales abound in the North Island; and in the east of the South Island there are many extensive plains of rich land, admirably adapted either for agriculture or cattle-breeding. Water and water-power are found in great abundance in the colony, and the numerous rivers are subject to sudden floods from the melting of the mountain snows. As a rule, however, the streams are short, and are not navigable for more than 50 miles above their mouths. The chief is the Clutha, in the South Island, and the Waikato river, in the North Island, which latter, issuing from the Taupo lake (30 miles long by 20 broad), flows in a northern direction for 200 miles, and reaches the sea on the west coast.

In the North Island, around Lakes Rotomahana and Rotorua, are a number of grand and beautiful geysers, which throw up water heated to the boiling point. The southwest coast of the South Island is indented with a number of deep sounds, of which Milford Sound is the chief. In this sound the water is unfathomable; the only way of securing a ship being to moor it, stem and stern, to the trees which overhang the water. Steamers of 2000 tons have been thus moored. The geology of New Zealand is remarkable and varied in a high degree. The mountains, which are of every variety of outline, are chiefly composed of the schist and slate-rocks, primary sandstone, and limestone. Extensive beds of coal and lignite exist; the former have been to some extent worked, and are at present being largely developed by the construction of railways and harbor works in their vicinity.

Of the whole surface extent of New Zealand, one-fourth is estimated to consist of

dense forest tracts, one-half of excellent soil, and the remainder of waste lands, scoriæ hills, and rugged mountain regions. Nearly 40,000,000 acres are supposed to be more or less suitable for agriculture and cattle-breeding. The soil, though often clayey, has in the volcanic districts more than a medium fertility; but the luxuriant and semi-tropical vegetation is perhaps as much due to excellence of climate as to richness of soil. Owing to the prevalence of light and easily worked soils, all agricultural processes are performed with unusual ease. The climate of New Zealand is one of the finest in the world. The country contains few physical sources of disease; the average temperature is remarkably even at all seasons of the year, and the atmosphere is continually agitated and freshened by winds that blow over an immense expanse of ocean. In the North Island, the mean annual temperature is 57°; in the South Island, 52°. The mean temperature of the hottest month at Auckland, in the northernmost province, is 68°, and at Dunedin, in the most southern province, 58°; of the coldest month, 51° and 40° respectively. The air is very humid, and the fall of rain is greater than in England, but there are more dry days. All the native trees and plants are evergreens. Forests, shrubberies, and plains are clothed in green throughout the year, the results of which are that cattle, as a rule, browse on the herbage and shrubs of the open country all the year round, thus saving great expense to the cattle-breeder; and that the operations of reclaiming and cultivating land can be carried on at all seasons. The seasons in New Zealand are the reverse of ours; January is their hottest month, and June the coldest. All the grains, grasses, fruits, and vegetables grown in England are cultivated in the colony with perfect success, being excellent in quality and heavy in yield; while, besides these, the vine is cultivated in the open air, and maize, the taro (*Caladium esculentum*), and the sweet potato are cultivated with success in the sunny valleys of the North Island.

The temperature, it will be thus observed, is very equable, for while the summers are as cool as those of England, the winters are as warm as those of Italy. The mean annual temperature of Auckland is nearly the same as at Rome; at Wellington, nearly the same as at Milan; at Dunedin, nearly the same as at London. The official reports of the British Army Medical Department show that, where the annual mortality from all diseases out of every 1000 British soldiers quartered in the United Kingdom was 16, it was only 5 out of every 1000 in the troops quartered for more than 25 years in New Zealand. In other words, this colony appears to be peculiarly favorable to the duration of human life.

In connection with this, it may be mentioned, in order to show the redundancy of the population in New Zealand, that in 1874 the births were 40.05 per 1000 of the population, and the death rate was only 12.97 per 1000, while the marriages were 8.81 for every 1000 people.

The entire acreage under crop, in February, 1875, was 1,788,800. Of the crops, the principal were wheat, oats, barley, potatoes, and sown grass. At the same date, the number of holdings was 16,092, the population being 296,018. The average yield of wheat was, in 1875, over 28 bushels per acre.

The live stock of the colony consisted, at the census of March 1st, 1874, of 99,859 horses, 494,917 cattle, 11,704,853 sheep, 123,921 pigs, and 1,058,198 head of poultry.

Large gold fields were discovered in the spring of 1857. In the year 1874, there were 376,388 ounces of gold, of the declared value of $7,526,655, exported from New Zealand, the average annual yield of the gold fields since 1862 being 588,072 ounces, or value of $11,395,140, while from April 1st, 1857, to December 31st, 1875, the total quantity of gold exported was 8,025,676 ounces, valued at $151,271,293 gold.

The principal produce of the colony is wool, 46,848,735 pounds, valued at $14,173,475, having been exported in 1874.

The total imports of the colony during the year 1874 were $40,609,060; the total exports, $26,256,345.

The class of people most required in New Zealand are farmers with a small capital, carpenters, who can earn, according to their skill, from 11 shillings to 15 shillings per diem, and single women, who always gain good wages, and rarely stop in service for a long time, being greatly in demand in the matrimonial market. All classes of laborers find ready employment at remunerative rates.

By an imperial statute, passed in 1852, the legislative power is vested in the Governor and a Parliament of two chambers; the first called the Legislative Council, and the second the House of Representatives, and collectively, the General Assembly. The Legislative Council consists at present of 49 members, nominated by the crown for life; and the House of Representatives of 83 members, elected by the people for five years. Two Maoris sit in the Legislative Council, and 4 in the House of Representatives. Two of the latter also are members of the Executive Council. The Governor is assisted by an Executive Council, composed of the responsible ministers for the time being, and any others he may appoint. Members of both branches receive pay at the rate of $787 for the session, which generally lasts three months. Every owner of a freehold worth $250, or tenant house-holder, in the country at $25, in the town at $50 a year rent, is qualified to vote for members of the House, and is eligible for membership. The seat of government is at Wellington, a town of about 12,000 people, and centrally situated.

The colony is divided into nine provinces; four in the North, and five in the South Island. Each of these provinces is governed by an elected Superintendent and Provincial Council. In 1875, the General Assembly passed a bill declaring that the provincial governments should cease to exist after the close of their next session. The form of local government which is to take the place of provincial government has not been decided upon, but will probably take the shape of legislative powers.

In the year 1874, the total ordinary revenue (including provincial) was $9,367,240, and the territorial revenue, $5,754,500, which, with incidental receipts of $221,320, makes the total general revenue—ordinary, territorial, and incidental—amount to $15,343,060. The total ordinary expenditure by general and provincial governments was $14,803,555.

Beyond the ordinary expenditure, a sum of $13,629,465 was spent, which is charged to the loan account. The public debt of New Zealand amounted, at the end of 1874, to $66,834,680, and as a loan expenditure is still proceeding, it is estimated that the total debt will shortly amount to about $95,000,000. Against this there is a sinking fund already amounting to $5,000,000, and, moreover, a large amount has been spent on reproductive works. In 1870, the sum of $20,000,000 was authorized to be borrowed for the purposes of emigration and public works (such as railways, roads, telegraphs, water-races, bridges, etc.), besides $5,000,000 for defence and other purposes. Since then, further large loans have been contracted for public works. To assist in the development of these works, a vast number of emigrants have been brought into the country, receiving either free passage from England or a grant of land. Railways are now being constructed throughout the islands, 260 miles being open for traffic; 420 miles under construction, of which a good deal is near completion; and 330 miles are authorized to be constructed.

Under the stimulus of the public works and emigration policy, no less than 43,965 emigrants arrived in New Zealand in 1874.

On the 31st of December, 1874, the colony had 2632 miles of telegraph lines, and 5284 miles of wires. The number of telegrams during the year was 844,301, of which total 724,582 were private, and the remainder government messages.

During the year 1874, the post office received 4,339,165 letters, and dispatched 4,719,291. The total number of newspapers received was 3,872,668, and dispatched, 2,434,024. Money orders to the number of 62,712 and the amount of $1,315,820 were issued during 1874.

Grammar and free schools, endowed from the public revenues of the various

provinces, several colleges, and two universities, one being established in Otago and the other a corporation endowed by the general government, are the principal educational institutions.

The shipping entered in 1874 consisted of 856 vessels, with a tonnage of 399,296. Of these, 237 vessels, measuring 201,017 tons, were British; 552, measuring 170,303 tons, colonial; and 67, measuring 27,976, were foreign. Of the foreign vessels entered, 50 were American. Coasters are not included in the above statistics. In 1874 the number of vessels entered coastwise was 14,351, and their tonnage 1,353,085.

The number of individual exhibits included in this Catalogue from New Zealand is 1114.

Commission from NEW ZEALAND to the International Exhibition:

THE HON. WALTER BALDOCK DURANT MANTELL, M. L. C., F. G. S., Chairman.
THE HON. WILLIAM GISBORNE.
WILLIAM HORT LEVIN, ESQ.
DANIEL MCINTYRE, ESQ., Consular Agent of the United States Government at Wellington.
JAMES HECTOR, ESQ., C. M. G., M.D., F. R. S., Special Commissioner to Philadelphia.
ARTHUR THOMAS BOTHAMLEY, Secretary.

NEW SOUTH WALES.

NEW SOUTH WALES, a British colony in the southeastern portion of Australia, is bounded on the north by a line which, beginning at Point Danger, in latitude 28° 8′ south, follows several lines of heights across the Dividing Range till it meets the 29th parallel, which forms the rest of the boundary westward; on the west by the 141st meridian; on the east by the Pacific Ocean; and the line separating it from Victoria on the south runs from Cape Howe, at the southeast of the island, northwest to the source of the Murray, and then along that stream, in a direction west by north, to the western boundary of the two colonies.

Its area is 323,437 square miles, and its population in 1874 was, exclusive of aborigines, 584,278. At the same date the population of Sydney, the capital, was 150,000. Within the colony of New South Wales, the mountain range, which girdles nearly the whole island, is most continuous and elevated, and is known as the Dividing Range. The section of this mountain system on the southern boundary of the colony, called the Australian Alps, rises in Mount Kosciusko to 6500 feet. From this the range extends northward, the water-shed being from 50 to 150 miles distant from the east coast, and thus divides the colony into two slopes, with two distinct water systems. The rivers on the eastern side descend with great rapidity, and in oblique tortuous courses, their channels often forming deep ravines. Many of them are navigable in their lower course for sea-going steamers. The principal are the Richmond, Clarence, Macleay, Manning, Hunter, Hawkesbury, and Shoalhaven. The numerous streams that rise on the west side of the water-shed within the colony, all converge and empty their waters into the sea through one channel within the colony of South Australia. The southern and main branch of this great river system is the Murray. The other great trunks of the system are the Murrumbidgee, which is navigable, the Lachlan, at times reduced to a string of ponds, and the Darling. The Macquarie, passing through the rich district of Bathurst, is a large tributary of the Darling, but it reaches it only in the rainy seasons. The coast line from Cape Howe to Point Danger is upwards of 700 miles long, and presents numerous good harbors formed by the estuaries of the rivers. Owing to the great extent of the colony, stretching as it does over eleven degrees of latitude, the climate is very various. In the northern districts, which are the warmest, the climate is tropical, the summer heat occasionally rising in inland districts to 120°, while on the high table-lands weeks of severe frost are sometimes experienced. At Sydney, the mean temperature of the year is about 65°. The mean heat of summer, which lasts here from the beginning of December to the 1st of February, is about 80°, but it is much modified on the coast by the refreshing sea breeze. The annual fall of rain is about 50 inches. Rain sometimes descends in continuous torrents, and causes the rivers to

rise to an extraordinary height. Sometimes the rains almost fail for five or six months in succession. Along the coast, for 300 miles from the northern boundary, the soil and climate are admirably adapted for the growth of cotton, and that plant has already been cultivated as far south as the river Manning (latitude 32° south). Farther south the climate is more temperate, and is fitted to produce all the grain products of Europe. Immense tracts of land, admirably adapted for agriculture, occur in the southwestern interior; while in the southeast coast districts the soil is celebrated for its richness and fertility. In the north, the tobacco plant, the vine, and sugar-cane are grown; and pineapples, bananas, guavas, lemons, citrons, and other tropical fruits are produced. In the cooler regions of the south, peaches, apricots, nectarines, oranges, grapes, pears, pomegranates, melons, and all the British fruits are grown in perfection, and sometimes in such abundance that pigs are fed with them. Wheat, barley, oats, and all the cereals and vegetables of Europe are also grown.

In 1875, New South Wales had 22,872,882 sheep, 856,699 horned cattle, 346,691 horses, and 219,958 pigs. The total area of land under cultivation, at the same date, embraced 469,957 acres, of which there were under wheat, 166,911 acres, under barley, 3984 acres, under oats, 17,974, under rye, 1342, under maize, 119,956.

New South Wales is believed to be richer in coal than the other territories of Australia. In 1874 there were 28 mines worked, producing in the year 1,298,400 tons of coal, valued at £786,152.

The gold mines of New South Wales cover a vast area, extending chiefly over the districts called the Western Fields, the Northern Fields, and the Southern Fields. Of these the Western Fields are the most important, furnishing three-fourths of the total supply. The gold exports of 1873 consisted of 200,134 ounces, value £773,439, of gold dust and bar, and of 490 boxes, value £2,151,168, of gold coin. The yield from the copper mines, in 1873, was 6027 tons.

The total exports during the year 1874 were £12,345,603; imports, £11,293,739.

The constitution of New South Wales vests the legislative power in a Parliament of two houses, the first called the Legislative Council, and the second the Legislative Assembly. The Legislative Council consists of not less than 21 members, nominated by the crown, and the Assembly of 72 members, elected by sixty constituencies. To be eligible a man must be of age, a natural-born subject of the Queen, or, if an alien, he must have been naturalized for five years, and resident for two years before election. There is no property qualification for electors, and the votes are taken by secret ballot. The executive is in the hands of a governor, nominated by the crown, who acts under the advice of ministers responsible to Parliament.

The public revenue during 1874 was £4,664,568; the expenditure, £4,426,040. The public debt, chiefly incurred for railways and other public works, amounted, at the end of 1874, to £10,842,415.

New South Wales possesses 436 miles of railways. Of electric telegraph, there were in the colony 8000 miles of wire, at the end of 1874. Number of paid messages transmitted during 1874, 385,000; number of telegraph stations, 105.

The post office of the colony transmitted 9,300,000 letters, 4720 newspapers, and 250,000 packets in 1874.

The number of schools, public and private, in 1872, was 1464, with 106,691 pupils.

Commission from NEW SOUTH WALES to the International Exhibition:

HIS HONOR, SIR JAMES MARTIN KNIGHT, Chief Justice, President.
HON. JOHN HAY, President of the Legislative Council, Vice-President.
HON. GEORGE WIGRAM ALLEN, Speaker of the Legislative Assembly, Vice-President.
HON. SIR EDWARD DEAS THOMSON, C. B., K. C. M. G., M. L. C., Vice-President.

Commissioners :

The Rev. Chas. Badham, D.D.
Samuel Bennett, Esq.
James Byrns, Esq.
R. W. Cameron, Esq., Resident Commissioner, N. Y.
The Hon. G. H. Cox, M. L. C.
J. R. Fairfax, Esq.
Andrew Garran, Esq., LL.D.
Hon. S. D. Gordon, M. L. C.
Henry Halloran, Esq.
Edward S. Hill, Esq.
Hon. Thos. Holt, M. L. C.
P. A. Jennings, Esq.
G. W. Lord, Esq., M. P.
Hon. Sir Wm. Macarthur Knight, M. L. C.
William Macleay, Esq., F. L. S.
T. S. Mort, Esq.
Benjamin Palmer, Mayor of Sydney.
Commander Thos. Stackhouse, R. N.
Alexander Stuart, Esq., M. P.
George Thornton, Esq., J. P.
William Wallis, Esq.
James Watson, Esq., M. P.
Hon. J. B. Watt, M. L. C.
Fitz William Wentworth, Esq.
John Williams, Esq.
W. C. Windeyer, Esq.
Robert Wisdom, Esq., M. P.
John Woods, Esq.
William Wolffen, Esq.
Rev. W. B. Clarke, M. A.
Professor Swersedge.
C. L. Wilkinson, Esq.
Charles Moore, Esq.
P. F. Adams, Esq.
Robert Adams, Esq.
James Powell, Esq.
Archibald Thompson, Esq.
Joseph Thompson, Esq.
P. N. Frebeck, Esq.
James Newton, Esq.
John Leving, Esq.

Resident Commissioners :

Augustus Morris, Esq., of New York, Executive Commissioner.
Marshall Burdekin, Esq., of Sydney.
Roderick William Cameron, Esq., of New York.
Sir Daniel Cooper, Baronet, of London,
Edward Flood, Esq., of Sydney.
Dr. R. W. Forbes, of New York.
Patrick Alfred Jennings, Esq., of Sydney.
The Honorable Jacob Levi Montefiore, of Sydney, a member of the Legislative Council of New South Wales.
George Oakes, Esq., of Sydney.
Joseph James Phelps, Esq., of Sydney, a member of the Legislative Assembly of New South Wales.
George Russell, Esq., of Scotland.
The Honorable James White, of Sydney, a member of the Legislative Council of New South Wales.
Christopher Rolleston, Esq.
William Morris, Esq.
Charles Robinson, Esq., Secretary.

VICTORIA.

VICTORIA comprises the southeast corner of Australia, at that part where its territory projects furthest into cool southern latitudes. Wilson's Promontory, to the southeast, the most southerly headland, just passes the 39° of south latitude, while the most northern point, which is at the opposite or northwest extreme, is in south latitude 34°. The longitude comprises 9°,—between 141° and 150° east of Greenwich. To the west is the colony of South Australia, separated by the 141° of east longitude, to the north is New South Wales, separated by the line of the Murray river eastwards from 141° east longitude to its source, and thence by a straight line southeast to Cape Howe, and from Cape Howe to South Australia again the colony is bounded on the south by Bass's Strait. The extreme length is east and west, and is about 500 miles, by an extreme width north and south of 300 miles. But a remarkable indentation of both the north and south boundaries opposite each other, about the middle of the colony, reduces the breadth between the head of the Port Phillip inlet and the Murray to only 120 miles. The superficial area is 88,198 English square miles.

Although Victoria may be called mountainous, as compared with the general flatness of Australia, it has much of the quiet and peculiar scenery characteristic of that division of the world. The highest mountain in Australia, Mount Feathertop, is 6303 feet in height. The largest river, which runs throughout its entire course in Victoria, is the Gouldbourn, 230 miles long. The Murray, which winds for a distance of 630 miles along the northern boundary of Victoria, rises in New South Wales, and falls into the sea in South Australia, so that it can scarcely be called a Victorian river.

The climate is on the whole healthful and agreeable. The average temperature of Melbourne is 57.6°, about the same as that of Marseilles, Bordeaux, Bologna, Nice, and Madrid. The common summer heat is from 65° to 80°, with an occasional advance to 90°, and even to 100°, during hot winds and a dry season. The winter range is mostly from 45° to 60°. Ice occasionally occurs in the midwinter of July, but it rarely, except on elevated ground, survives the noonday sun.

The estimated population of Victoria, on the 31st of March, 1875, was returned at 810,442 by the Registrar-general.

In 1875 there were 1,011,776 acres under crops, including 332,936 acres of wheat, 114,921 of oats, 29,505 of barley, 35,183 of potatoes, 119,031 of hay, and 253,129 of green forage. The gross produce was: wheat, 4,850,165 bushels; oats, 2,121,612 bushels; barley, 619,896 bushels; potatoes, 124,310 tons; hay, 157,261 tons; wine, 577,493 gallons. The total number of horses was, in 1875, 180,254; milch cows, 241,137; horned cattle, 717,251; sheep, 11,221,036; pigs, 137,941. The manufactures of Victoria employed 25,000 persons, and the capital invested in machinery and plant was £5,000,000. The number of persons at work in the gold fields, December 31st, 1874, was 45,151, of whom 12,180, or 27 per cent., were Chinese.

The total value of the imports and exports of Victoria, including bullion and specie, for the year 1874, was as follows: Imports, £16,953,985; exports, £15,441,109. The most important, in value, of the imports are woolens, sugar, cotton, apparel and haberdashery, and tea. The two staple articles of export are wool and gold. The total exports of wool in 1874 amounted to 88,662,311 pounds, of the value of £6,373,641. The export of gold, exclusive of specie, was 1,012,153 ounces, of a declared value of £4,053,288.

The number of mercantile vessels on the register of Victoria, at the end of 1874, was 429, with a total tonnage of 70,696, and crews of 3229 men. Of these vessels 47 were steamers.

The constitution of Victoria was established by an act passed by the legislature of the colony in 1854, and subsequently confirmed by the crown. The legislative authority is vested in a parliament of two chambers—the Legislative Council, composed of 30 members, and the Legislative Assembly, composed of 78 members. A property qualification is required both for members and electors of the Legislative Council. No electoral property qualification is required for graduates of British universities, matriculated students of the Melbourne university, religious ministers of all denominations, certificated schoolmasters, lawyers, medical practitioners, and officers of the army and navy. Six members, or a fifth, of the Legislature Council must retire every two years, so that a total change is effected in ten years. The members of the Legislative Assembly are elected by universal suffrage, for the term of three years. The executive consists of a governor appointed by the crown, and a ministry which must contain at least four members of parliament, and must command a majority in the assembly. The revenue for the year 1874–75 was £4,406,906; the expenditure, £4,425,277. The public debt, incurred entirely for the construction of public works, amounted to £12,485,432 on January 1st, 1875.

Victoria has a more extensive system of railways than any other of the Australasian colonies. On the 1st of January, 1875, there were 457½ miles opened for traffic, and 427 more in course of construction. There were, in 1874, 148 telegraph stations, 4464 miles of wires. Number of telegrams forwarded during the year, 701,080. The work of the post office during the same year, 15,732,888 letters, 6,866,918 newspapers, and 1,269,822 packets. Number of post offices, 802.

The following table shows the educational condition of the population above five years of age:

	MALES.	FEMALES	TOTAL.
Able to read and write,	264,665	209,898	474,665
Able to read only,	30,049	36,336	66,385
Unable to read,	25,462	26,315	51,077

The state of education among the children, between 5 and 15, showed that 846 children out of 1000 could read, 640 could read and write, and only 154 were totally uninstructed. Education in Victoria is gratuitous, secular, and compulsory, and the legislature has voted large sums for the primary education of the people.

The total number of schools is 1867, including 908 "common" schools, with an attendance of 154,353 pupils. (Furnished, in part, by the Victoria Commission.)

Commission from VICTORIA to the International Exhibition:

SIR REDMOND BARRY, Acting Chief Justice of the Supreme Court, President.

HON. J. J. CASEY, M. P.
HON. J. F. SULLIVAN, M. P.
HON. C. J. JENNER, M. L. C.
JAMES MUNRO, HON., M. P.
J. MCILWRAITH, ESQ.
L. J. SHERRARD, ESQ.
COUNT DE CASTELNAU.
HON. S. H. BINDON.
JAMES BOSISTO, ESQ., M. P.
JAS. GATEHOUSE, ESQ., Mayor of Melbourne.
JOHN MCINTYRE, ESQ.
J. I. BLEASDALE, D.D.
HON. SIR JOHN O'SHANASSY, K.C.M.G.
HON. SIR JAMES MCCULLOCH, M. P.
HON. JOHN ALEXANDER MACPHERSON, M. P.
HON. JOHN THOMAS SMITH, M. P.
LESLIE JAMES SHERRARD, ESQ.,
JOHN DANKS, ESQ.
GEORGE COLLINS LEVEY, ESQ., Secretary.

SOUTH AUSTRALIA.

THE colony of South Australia embraces 25 degrees of latitude through the centre of the continent of Australia, from the Southern to the Indian Ocean, and is bounded on the east by the colonies of Victoria, New South Wales, and Queensland, and on the west by the colony of Western Australia. Its area is 914,730 square miles, or 585,427,200 acres; being about a third of the area of the United States of America, or ten times that of Great Britain. Its population is 210,699.

Its chief exports are wool, wheat, and copper. In 1875 the exports were valued at £4,442,100—namely: of wool, £1,778,297; of agricultural produce, £1,688,035; of metals, £758,664; and of other products, £217,104. Its revenue in 1875 was £1,143,312, its people not being taxed at a higher rate than 25 shillings a head. The people have purchased land of the government to the extent of 4,634,711 acres, of which 1,400,000 are under cultivation; and the average price paid since 1845 is £1 5*s.* 2*d.* per acre. The public debt is about £3,000,000; but, as an offset, is a sum of £2,225,000 due for lands sold to occupiers, and payable within six years.

The natural wealth of the colony in healthy climate, fruitful soils, and abundant minerals, has been greatly augmented by useful and substantial improvements. In addition to numerous ports made serviceable for coasting trade, inland traffic is facilitated by 884 miles of excellent macadamized roads, which have cost over £2,000,000; and by railways of nearly an equal further cost. The public and private buildings, both in towns and country, are mostly of well-built stone, with slate or iron roofs. Gardens and orchards, pasture and arable fields cover the more settled portions of the colony, whilst over hundreds of miles outside of these some 6,000,000 sheep, 200,000 head of horned cattle, many thousands of horses, and a few hundred camels, thrive at large on the native vegetation, save that their ranches, or runs, are mostly inclosed in areas of from 5 to 50 square miles with good post and wire fencing.

The best of meat and bread, fruit and vegetables, grow in abundance in South Australia. People there live well at little cost. Labor is well rewarded. There are not, or ought not to be, any able-bodied paupers in the colony. At the savings' banks, which are guaranteed by government, the small deposits of the poorer classes approximate £800,000, on which four to five per cent. interest is paid. Immigration is promoted by annual money votes, which, through Mr. F. S. Dutton, C. M. G., Agent-General for the colony in London, supply free or assisted passages for eligible persons.

The government, the laws, and the social institutions, like the people of South Australia, have an Anglo-Saxon character. There is the fullest civil and religious freedom under a vice-regal governor, whose ministers are chosen by, and are responsible to, a majority of two houses of parliament elected by ballot, as to the larger house, of manhood suffrage alone, and, as to the smaller house, by a slightly restricted property qualification. These organizations have worked harmoniously to the contentment of the people.

Churches and schools are numerous. The facilities for acquiring real property in the colony are great, and laws well secure its quiet enjoyment. The public lands are mostly sold on credit: one-tenth per cent. is paid down as interest on the purchase money, which is not less than twenty shillings per acre. The balance is deferred to the sixth year, a second ten per cent. on the purchase money having been paid on the third year as interest. At the sixth year half the

balance may be renewed for four years at four per cent. if needed; but that the State may secure certain benefit from the sale of its lands under a credit system, the purchaser is bound to effect annual improvements. All metals, precious or other, go to the purchaser. The title to real estate from the crown is by registration, of which the purchaser gets a certificate in simple form. This system is popular, for it is ready and inexpensive at the outset, and is returnable to the registration office for record on it of all subsequent dealings, or for substituted certificate, or certificate as needed, in the event of sales. At the close of 1874 the value of landed property, which had passed under it, amounted to £9,260,186. Adjoining colonies have adopted this law.

The settled portions of the colony of South Australia are sectioned off into counties, and these counties, when arable cultivation requires it, are subdivided into hundreds, whose municipal governing bodies can be elected for local public works and education. Outside the hundreds, in the southern portion of the colony, the public lands are left for purely pastoral occupation, for which fourteen or twenty-one years' leases can be procured at moderate rents, regulated much by distance from ports of shipment, except that, both as to public lands inside or outside the hundreds, rights to search for and work minerals are readily granted. The rent of a mining lease is fixed at ten shillings an acre per annum, on a fourteen years' term, renewable.

For the northern territory of South Australia, with its tropical climate, the land laws are modified. Land there is open for selection and sale at 7*s*. 6*d*. per acre, or for lease over ten years at 6*d*. per acre per annum. And, for the special growth of sugar, cotton, tea, rice, and tobacco, selections varying from 320 to 1280 acres can be made at a rental of 6*d*. per acre per annum for five years, when, if the land has been inclosed and one-half under cultivation, a free grant is procurable.

In 1872 South Australia erected 1973 miles of telegraph wire across her territory, and, at a cost of £350,000, connected Australia with India and Europe.

Commission from SOUTH AUSTRALIA (ADELAIDE) to the International Exhibition:

HIS EXCELLENCY, SIR ANTHONY MUSGRAVE, C. M. G., Chairman.

HON. W. EVERARD, Commissioner of Crown Lands.
HON. H. E. BRIGHT, M. L. C., J. P., Commissioner of Public Works.
HON. JOHN CROZIER, M. L. C., J. P.
HON. WENTWOOD CAVANAUGH, ESQ., M. P., J. P.
JOSIAH BOOTHBY, ESQ., J. P.
E. W. ANDREWS, ESQ., J. P.
S. DAVENPORT, ESQ., J. P., Special Commissioner.
GEORGE MCEWEN, ESQ., J. P.
DR. SCHOMBURGH, D. P., J. P.
CALEB PEACOCK, ESQ., J. P.
R. D. ROSS, ESQ., M. P., J. P.
W. E. SMITH, ESQ., M. P., J. P.
WALTER HACKE, ESQ.
J. A. HOLDEN, ESQ., J. P.
JOSEPH CROMPTON, ESQ.
S. V. PIZEY, ESQ.
F. G. WATERHOUSE, ESQ.
W. A. E. WEST ERSKINE, ESQ.
C. J. COATES, ESQ., Commissioner and Honorary Secretary.

CAPE OF GOOD HOPE.

THE colony of the Cape of Good Hope is bounded north and northeast by the Orange river, which divides it, in parts of its course, from the Free State; east and northeast by the Tees, a small tributary of the Orange, the Stormbergen Mountains, and the Indwe and Great Kei, which two rivers separate the Cape Colony from Kaffirland; on the south it is bounded by the Indian Ocean, and on the west by the Atlantic. Latitude 28° 10′ to 34° 51′ south; longitude 16° 20′ to 28° 20′ east. The breadth on the greatest meridian is about 450 miles, the length on the largest parallel about 600 miles, and the total area is about 201,000 square miles. The colony is generally considered as forming two sections, the Western and Eastern Provinces, each divided into 16 electoral divisions, which are again subdivided for fiscal and magisterial purposes. The first regular census (1865) gave the following result as to the numbers of the population:

White, or European,	181,592
Hottentot,	81,598
Kaffir,	100,536
Other colored,	132,655
	496,381

Since the census, the annexation of British Kaffraria, Basutoland, Fingoland, and Normansland, added 5847 whites and 273,930 colored to the population, making the total, 776,158.

Hydrographically, the country, as a whole, is decidedly superior to most parts of Africa. The seaboard presents several comparatively safe and commodious harbors. Of these, however, two—Table Bay in the Western Province, and Algoa Bay in the Eastern—absorb nearly the whole of the foreign trade. Hardly any of the ports command navigable communication with the interior.

The highest range of mountains within the colony is 9000 feet above the sea. The dividing ridge runs parallel with the coast at a distance of 100 miles. Between the principal range and the sea, on the east, there are two other ranges, less continuous and regular; the intermediate one generally more distant from the first than they are from each other.

The prevalent winds—the southeast in summer, and the northeast in winter—mitigate each the rigor, whether heat or cold, of its own season; and, in spite of occasionally sudden and great changes, render the temperature, as a whole, one of the most salubrious and delightful in the world. The mean temperature of the year at Cape Town is about 68° F.; that of the coldest month being 57°, and of the hottest, 79°.

The value of the total exports and imports of the Cape Colony, including British Kaffraria, was, in 1873, as follows:

Imports,	£5,451,927
Exports,	4,011,327

Among the articles of export, wool is the most important, forming nearly nine-tenths of the total. Among the other leading items are copper ore, feathers, and sheepskins.

There were, at the end of 1865, in the colony, 692,514 head of cattle and 9,836,065 sheep. The sheep farms are often of very great extent, comprising from 3000 to 15,000 acres and upwards. Those in tillage are comparatively small. The graziers are, for the most part, proprietors of the farms they occupy, paying a quit rent to government, as the original owner of the soil.

COMPARISON OF TOTAL STOCK IN THE COLONY IN 1865 AND 1875.

	1865.	1875.
Horses	228,465	207,318
Mules and asses	24,267	29,517
Draught oxen	249,291	398,825
Other cattle	443,004	698,681
Wooled sheep	8,426,619	10,064,289
Other sheep	1,465,883	944,050
Angora goats	121,432	972,733
Common goats	2,147,807	2,122,808
Pigs	78,578	110,489
Ostriches	80	22,257

There were lines of railways of a total length of 134 miles at the end of 1874, and a system of other main lines, as well as of telegraphs, was under consideration by the government.

The constitution vests the executive in the Governor and an Executive Council, composed of certain officeholders appointed by the crown. The legislative power rests with a Legislative Council of 21 members, and a House of Assembly of 66 members.

The income and expenditure of the colony, during 1873, were as follows:

Revenue,	£2,078,220
Expenditure,	2,159,658

Included in the above receipts is a loan of £859,000 for public works. The public debt, on the 1st of January, 1875, amounted to £1,723,144.

Commissioner from the CAPE OF GOOD HOPE to the International Exhibition:

MR. H. CRAWFORD COATES, Executive Commissioner.

JAMAICA.

JAMAICA, one of the West India Islands, and by far the most important of those belonging to Great Britain, is about 90 miles to the south of Cuba, and stretches in north latitude between 17° 40′ and 18° 30′, and in west longitude between 76° 15′ and 78° 25′. Area, 6900 square miles; population (in 1871), 506,154, of whom less than three per cent. were white. The greatest length of the island is 150 miles, and its greatest breadth, 50 miles. It is traversed from east to west by a heavily timbered ridge called the Blue Mountains, which rises to about 7000 feet. From this range at least 70 streams descend to the north and south shores; one of these, the Black river, affords for small craft a passage of about 30 miles into the interior. The others, owing to the shortness and declivity of their course, are not navigable. Excellent harbors are everywhere to be found. The best of these is formed by a deep and capacious basin, in the southeast quarter of the island, which washes the most spacious and fertile of the plains between the hill country and the coast. Around this inlet, and within a few miles of each other, are all the considerable centres of population, Port Royal, Kingston, and Spanish Town.

The climate varies considerably, the torrid belt of the coast gradually passing into the temperate region of the central heights. The latter is said to be remarkably favorable to longevity; and, after having long been a retreat for the residents themselves, it has lately begun to attract invalids from the United States. To contrast two positions—the one near Kingston harbor, the other at an intermediate elevation of 4000 feet—their annual mean temperature are stated to be respectively 81° F. and and 68° F.

In 1871 the chief exports were in value as follows: Sugar, £502,193; rum, £271,267; coffee, £147,562; logwood, £115,423; while the chief imports were: Flour, £135,500, and salt-fish, £92,801. During the same year the revenue amounted to £434,564; the expenditure to £430,154.

The sum of £19,403 was devoted to the support of the schools during the year 1872.

Commissioner from JAMAICA to the International Exhibition:
WM. ROBERT THOMSON, ESQ., Kingston.

BAHAMAS.

A CHAIN of islands lying between 21° 42′ and 27° 34′ N. lat., and 72° 40′ and 79° 5′ W. long. The group is composed of about twenty inhabited islands and an immense number of islets and rocks. The principal islands are New Providence (containing the capital, Nassau), Abaco, Harbor Island, Eleuthera, Inagua, Mayaguana, St. Salvador, Andros Island, Great Bahama, Ragged Island, Rum Cay, Exuma, Long Island, Crooked Island, Acklin Island, Long Cay, Watling's Island, the Berry Islands, and the Biminis. In 1848 the Turks and Caicos Islands were separated from the other Bahamas and formed into a distinct government, under the government-in-chief of the governor of Jamaica. The Turks and Caicos Islands lie between 21° and 22° N. lat., and 71° and 72° 37′ W. long.

There are ten colonial custom-houses and ports of entry in the government of the Bahamas—viz., Nassau, Abaco, Eleuthera, Harbor Island, Exuma, Rum Cay, Long Island, Long Cay, Inagua, and Ragged Island. Considerable quantities of pineapples, oranges, and sponges are exported, chiefly to England and the United States. The pineapple crop is very precarious. The industry of salt-raking has ceased to be remunerative, owing to the duties imposed on salt by the United States. Experiments in coffee-planting and other branches of industry have been commenced under the patronage of the present governor.

The public expenditures for 1874 were £37,283; receipts during the same year, £38,374. The total public debt in 1873 was £65,081.

In 1874 the imports were valued at £183,993, and the exports at £130,293. The census of 1871 gave the population of the colony as 39,162.

The colony's staples are salt, fruit, sponge, barks, dye and furniture woods, guano and straw, turtle-shell, fish-scale, and shell-work.

The articles on exhibition fairly represent the productions and manufactures of these islands, and both might be indefinitely extended. But it is not the commercial position of the Bahamas only which should make a knowledge of them general. Their equality and wonderful salubrity of climate commend them to all who seek a genial, healthy, life-giving atmosphere. As a winter home for the afflicted, Peter Henry Bruce wrote nearly a century and half ago, "It is no wonder the sick fly hither for relief, being sure to find a cure here." Modern travelers also testify that, as a resort from damp and cold to sunshine and summer, for those who require change and climatic benefit, the Bahamas offer peculiar advantages. The heat is tempered by an ocean breeze of softness and purity seldom experienced elsewhere. Tropical flowers gladden the eye, and the luscious pineapple, orange, and melon tempt the palate with their freshness and beauty. Fish abound in the clear pellucid waters surrounding these islands, and the northern fowl seek a home on the lakes. In a word, the Bahamas seem by nature fitted as a grand sanitarium for the afflicted from the North American continent, and as a most desirable winter resort for all who wish to escape the rigors of the northern season.

(The above data have been derived from the special Catalogue of the British section.)

Commission from BAHAMAS to the International Exhibition.

DR. EDWARD T. WEBB, Commissioner, Philadelphia.

BERMUDAS,

Or Somers' Islands, are a cluster of about one hundred small islands, situated on the western side of the Atlantic Ocean, in lat. 32° 15′ N. and long. 64° 51′ W., at a distance of about 580 miles from the nearest land—viz., Cape Hatteras, in North Carolina. Fifteen or sixteen of these islands are inhabited; the rest are of inconsiderable size, the largest, or Bermuda proper, containing less than twenty square miles of land, and nowhere exceeding three miles in breadth.

The islands extend from N.E. to S.W. in a curved line for about twenty miles, bending inward at both extremities, so as to enclose spacious and secure harbors.

Besides the main island, on which the town of Hamilton, the present seat of government, is situated, the principal islands are St. George's, where the ancient town of St. George, the former capital, stands; Ireland Island, where the dockyard is established; Boaz and Watford Islands, occupied entirely by a military detachment, formerly a convict establishment; Somerset, St. David's, Smith's, Cooper's, Nonsuch, Godet's, Port's, and River's. With the exception of one break between Somerset and Watford Islands, there is continuous communication by bridges from St. George's to Ireland Island. The climate has been long celebrated for its mildness and salubrity. The islands produce arrowroot of a fine quality, and an indigenous cedar of great durability, well adapted for ship-building and house-timber. A few whales are occasionally taken in the neighboring waters. Turtle are common.

The islands derive their name from Bermudez, a Spaniard, who sighted them in 1527. They were first colonized by Admiral Sir George Somers, who was shipwrecked there in 1609, on his way to Virginia. On his report the Virginia Company claimed them, and obtained a charter for them from James I. in 1612. This company sold their right for £2000 to an association of 120 persons, who obtained a new charter in 1616, incorporating them as the Bermuda Company, and granting them very extensive powers and privileges. Representative government was introduced in 1620. In 1621 the Bermuda Company in London made a Body of Ordinances for the government of the colony. During the civil war great numbers of emigrants from England were attracted thither by the favorable reports of the climate and soil. Toward the end of the reign of Charles II. grave complaints were made by the inhabitants of the misgovernment of the plantation by the company, and its charter was annulled by process of quo warranto, at Westminster, in 1684–85. Since then the governors have been appointed by the Crown, and laws for the colony enacted by a local legislature, consisting of the governor, council, and assembly. The lands belonging to the company were forfeited to the Crown on the annulment of their charter, and, with the exception of some reserved for public uses, were granted in 1759 to purchasers on small quit-rents, extinguishable on the payment of a fixed sum of money.

During the Revolutionary war in North America the inhabitants suffered great privations from the scarcity of food; and although they export largely certain articles of agricultural produce, especially potatoes, onions, tomatoes, and arrowroot, they are still dependent on foreign supplies for all the flour and most of the meat consumed. Early in the present century the importance of the Bermudas as a naval station came to be recognized. Ireland Island was purchased exclusively by the government, and a dockyard established there. By order in council, dated June

28, 1824, the Bermudas were declared a place where male convicts might be kept at hard labor on the public works; but these islands never were made a penal settlement, strictly speaking, where convicts might be discharged. The establishment was broken up in 1863. On the abolition of slavery in 1834, the system of temporary apprenticeship of the emancipated slaves, permitted by the Act of Parliament in the slave-holding colonies, was dispensed with by the local legislature of Bermuda, so as to entitle the slaves to their absolute freedom six years sooner than was required by Parliament. They and their descendants now form more than a numerical half of the entire population.

In 1846 a lighthouse, visible at more than thirty miles' distance, was erected on the highest land in the colony, the light being 362 feet above the sea. A public library was established in 1839. In 1871 the island of St. George's was connected with the main island by a causeway and road two miles in length, commenced in 1866, and completed at a cost of nearly £30,000. An iron-girder swing-bridge still permits the passage of vessels.

The revenue in 1874 was £29,066, the expenditure £29,800, the public debt £13,234, the imports £252,435, the exports £81,585; total tonnage of vessels entered 72,212; cleared, 71,935. The census of 1871 showed a population of 12,121, of whom 4725 were white, 7396 colored.

(The above data have been derived from the special Catalogue of the British section.)

Commission from BERMUDA to the International Exhibition:

HIS HON. THOMAS L. WOOD, Chief Justice, President.
HON. HENRY FOWLER, Receiver-General.
LT. COL. BLAND, R. E.
JAMES TUCKER, ESQ., Colonial Secretary and Honorary Secretary.
CAPT. LOCKHART, R. A., A. D. C.

Assistant Commissioners.

A. H. FRAZER LEFROY, ESQ.
W. S. BARR, ESQ.
H. J. HINSON, ESQ., M. D.
J. B. HEYL, ESQ.
C. C. KEANE, ESQ.

Resident Commissioner—A. A. OUTERBRIDGE, Philadelphia.

BRITISH GUIANA.

THIS colony is a portion of the South American Continent, extending from east to west about two hundred miles. It includes the settlements of Demerara, Essequebo, and Berbice. It is bounded on the east by Dutch Guiana, from which it is divided by the river Corentyn, on the south by Brazil, on the west by Venezuela, and on the north and north-east by the Atlantic Ocean.

This territory was first partially settled by the Dutch West India Company in 1580. It was from time to time held by Holland, France, and England. It was restored to the Dutch in 1802, but in the following year retaken by Great Britain, to whom it was finally ceded in 1814. It is impossible to determine the exact area of the

colony, as its precise boundaries are undetermined between Venezuela and Brazil, respectively, but it has been computed to be 76,000 square miles.

Under the Dutch, Demerara and Essequebo constituted one government, and Berbice another, which arrangement indeed continued in force under the British administration down to the year 1831.

The revenue in 1874 was £475,885, the expenditure £485,893, both exclusive of the sums expended on immigration by the planters. The public debt was £426,030, but £400,030 was invested for a sinking fund, or otherwise secured. The exports in 1874 were valued at £1,873,219, the imports at £2,761,837.

The population in 1871 was stated to be 193,491, of whom 113,570 were natives of British Guiana, 13,385 of West India Islands, 7925 of Madeira and the Azores, and 9635 of other places. The estimated population in 1875 was 212,000, including an immigrant population under indenture on estates of 38,597, of whom 33,360 were Indians, 3875 Chinese, and 562 Africans. The aboriginal Indians were estimated in 1851 at about 7000; but Mr. M'Clintock, Superintendent of Rivers and Creeks, an undoubted authority on the subject, carries the number as high as 20,000 or 21,000, but the numbers of the tribes within the British territories vary, and are at all times very uncertain.

(The above data have been derived from the special Catalogue of the British section.)

Commission from BRITISH GUIANA to the International Exhibition.

A. A. OUTERBRIDGE, Commissioner, Philadelphia.

CEYLON.

AN island situated in the Indian Ocean, off the southern extremity of Hindostan, lying between 5° 55′ and 9° 51′ N. lat., and 79° 41′ and 81° 54′ E. long.; its extreme length from north to south—*i. e.*, from Point Palmyra to Dondera Head—is 266 miles; its greatest width 140½ miles, from Colombo on the west coast to Sangemankende on the east.

The climate for a tropical country is comparatively healthy, the heat in the plains, which is nearly the same throughout the year, being much less oppressive than in Hindostan. Along the coast the annual mean temperature is about 80° Fahr.; at Kandy, 1465 feet above the sea level, it is 76° (average of ten years); at Colombo the annual variation is from 76° to 86°; at Galle 70° to 90°; and at Trincomalee 74° to 91°. In the mountain ranges there is of course a great variety of climate, the thermometer at the hill station Nuwara Eliya, which is some 6000 feet above the level of the sea, falling at night as low as 32°.

Ceylon was visited in early days by the Greeks, Romans, and Venetians; in 1505 the Portuguese formed settlements on the west and south of the island; in the next century they were dispossessed by the Dutch. In 1795–6 the British took possession of the Dutch settlements in the island. They were annexed then to the Presidency of Madras, but five years later, in 1801, Ceylon was constituted a separate colony. In 1815 war was declared against the native government of the interior: the Kandyan king was taken prisoner, and the whole island fell under the rule of the British.

By letters patent under the Great Seal, April, 1831, a Council of Government was appointed, and by a supplementary commission to the then governor (March, 1833) the form of government almost as now existing was established.

The public expenditures for 1874 were £1,184,192; receipts, £1,324,328. The total public debt in 1874 was £600,000. In 1874 the total value of imports was £5,691,860, and of exports £4,687,388.

(The above data have been derived from the special Catalogue of the British section.)

STRAITS SETTLEMENTS.

SINGAPORE is an island about 25 miles long by 14 wide, situated at the southern extremity of the Malayan peninsula, from which it is separated by a narrow strait about ¾ of a mile in width. There are a number of small islands adjacent to it which form part of the settlement. The seat of government is the town of Singapore, at the southern point of the island, in lat. 1° 16′ N., and long. 103° 53′ E.

Penang is an island about 20 miles long and 9 broad, containing an area of 107 square miles, situated off the west coast of the Malayan peninsula in 5° N. lat., and at the northern extremity or entrance to the Straits of Malacca. On the opposite shore of the mainland, from which the island is separated by a strait from 2 to 10 miles broad, is Province Wellesley, a strip of territory forming part of the settlement, averaging 8 miles in width, and extending 45 miles along the coast, including 10 miles of newly-acquired territory to the south of the Krean. The chief town is George Town, in 5° 24′ N. lat. and 100° 21′ E. long.

Malacca is situated on the western coast of the peninsula, between Singapore and Penang, about 120 miles from the former and 240 from the latter, and consists of a strip of territory about 42 miles in length, and from 8 to 24½ miles in breadth. The principal town, called Malacca, is 2° 10′ N. lat. and 102° 14′ E. long.

The revenue during the year 1874 was £309,991, and the public expenditures £317,726.

(The above data have been derived from the special Catalogue of the British section.)

GOLD COAST COLONY, WEST AFRICA.

THE Gold Coast Colony, which comprises the British settlements on the Gold Coast and at Lagos, was constituted by a charter under the Great Seal, bearing date the 24th day of July, 1874.

The Gold Coast is the name generally given to a portion of Upper Guinea, between 5° and 4° 20′ E. long., stretching along the Gulf of Guinea from the river Assini on the west to the river Volta on the east, between which points are the settlements of Axim, Dixcove, Secondee, Elmina, Cape Coast Castle, Anamaboe, Accra, and Addah. In 1672 a company was formed, called the Royal African Company, which built forts at Dixcove, Secondee, Commendah, Anamaboe, Winnebah, and Accra, besides strengthening Cape Coast Castle, which was already in existence. This company was succeeded in 1750 by the African Company of Merchants, constituted by Act of Parliament, with liberty to trade and to form establishments on the West Coast of Africa between 20° N. and 20° S. lat. This company was dissolved in 1821 by Act of Parliament, and the forts transferred to the Crown, by whom they were placed under the government of Sierra Leone.

The revenue of the Gold Coast for 1874 was £74,868, the expenditure £47,796. The annual imports were £225,525, the exports, £330,624. It has no public debt. The estimated population, including the protectorate, is 400,000.

The revenue of Lagos for 1874 was £39,350, the expenditure £37,296, the public debt £11,631. The imports for the same year were £348,636, the exports £486,227 The population is 62,021.

(The above data have been derived from the special Catalogue of the British section.)

MAURITIUS.

An island lying in the Indian Ocean, between 57° 17′ and 57° 46′ E long., and 19° 58′ and 20° 32′ S. lat. It is 400 miles east of Madagascar. It comprises an area of 676 square miles.

The Mauritius was discovered by the Portuguese in 1507. They claimed possession of it during nearly the whole of the sixteenth century. The first who made any settlement in it were the Dutch in 1598, who named it Mauritius, in honor of their prince Maurice. It was abandoned by them in 1710, and afterward taken possession of by the French. Mauritius was for a long time during the war a source of great mischief to English merchant-vessels and Indiamen, from the facility with which sorties might be made from it upon traders by French men-of-war and privateers. The British government determined on an expedition for its capture, which was effected in 1810. The possession of the island was ratified by the treaty of Paris, 1814.

Mauritius pays £45,000 per annum to the imperial government as military contribution, but this amount is subject to reduction when the garrison is below the standard fixed upon as necessary for the defence of the colony. The total police force is 849.

The revenue for 1874 was £720,130, the expenditure £727,063, the public debt £895,600, bearing six per cent. interest. The imports were £2,427,813, the exports £2,697,892. The estimated population at the close of 1874 was 3,331,371, of whom 233,017 were Indians.

(The above data have been derived from the special Catalogue of the British section.)

QUEENSLAND.

QUEENSLAND occupies the whole of the northeastern portion of Australia, commencing at a point of the east coast about 400 miles north of Sidney, called Point Danger, in latitude 28° 8′ south. The greater portion of the southern boundary line is formed by the 29th parallel of south latitude. The eastern seaboard extends about 1300 miles to Cape York, the extreme northern point of the continent, in latitude 10° 40′. The mean breadth of the territory is 900 miles from the eastern coast-line to the meridian of 138° east longitude, which forms the western boundary line. This includes the greater portion of the Gulf of Carpentaria, which has a seaboard of about 900 miles. The whole of Queensland comprises 678,000 square miles,—nearly twelve times the area of England and Wales.

The portion of the colony extending along the eastern coast, is indented with numerous bays, which are the outlets of many navigable rivers, having their sources in the cool gorges and deep recesses of a great mountain range, running north and south, parallel with the sea coast, at a distance of from 50 to 100 miles. The summits of this great dividing range rise from 2000 to 6000 feet above the level of the sea. Numerous spurs are given off from the range, in ridges sloping gradually towards the coast. These ridges are generally composed principally of quartz, and in many places form good natural roads for a considerable distance. The ridges are usually covered with a variety of fine and valuable timber. The iron-bark, bloodwood, box, and other descriptions of wood, very valuable to the farmer for fencing and building, are found here in great abundance.

Unlike almost every other portion of Australia, Queensland is correctly described as "a land of rivers and streams." These rivers find an outlet in the many large and beautiful bays and estuaries on the eastern seaboard. One of these, Moreton Bay, receives the waters of five rivers, which are always navigable. The largest of these, the Brisbane, is navigated by good-sized steamers for 75 miles, and is nearly a quarter of a mile wide at a distance of 15 miles from its mouth. The principal rivers on the eastern seaboard are the Logan, the Brisbane, the Mary, the Caliope, the Boyne, the Fitzroy, the Pioneer and the Burdekin. The longest tidal river in Queensland is the Fitzroy, which drains an area of not less than 50,000,000 of acres, and is navigable as far as Yaruba, 60 miles from its estuary in Keppel Bay. It receives as its principal tributaries, the Dawson, Mackenzie, and Isaacs, large streams flowing for several hundred miles from the northwest, west, and southwestern parts of the interior. The tide at Rockhampton (40 miles from the embouchure of the river) rises 4 feet, and the stream is thus navigable for vessels of considerable burden.

The banks of the rivers are usually well elevated, and in many places consist of very rich alluvium, brought down from the great mountain ranges. This alluvial soil is frequently of very great depth, and is marked everywhere by a magnificent growth of timber, very unlike the ordinary Australian wood.

Beyond the Main, or great dividing range, the country presents features of still greater beauty and fertility. Vast plains—60, 70, or 80 miles across—stretch out their level surface, unbroken by a single tree, but covered with luxuriant grass, and often purpled over with fragrant herbage. These great plains are composed of rich, black soil. They are well watered with a network of streams, which trickle down from the gradual slopes of the mountain range. The soil in this locality is admirably adapted for tillage; and within a certain distance of the mountain range the rains fall with great regularity. The land here is lightly timbered, and is cleared with less labor than on the lower lands, and the soil has proved to be peculiarly adapted for the growth of wheat of the finest quality. The yield per acre in this locality has sometimes been as much as 50, and even 60 bushels, of 63 pounds to the bushel. The

average yield may be estimated at 30 bushels per acre. Indian corn and other cereals as well as all the European fruits grow luxuriantly, and come to the greatest perfection in this highly favored locality, which has been called the Garden of Queensland.

This country, west of the great dividing range, stretches away in a series of fine plateaux for a distance of 400 or 500 miles westward, and, with the interruptions of other mountain ranges crossing the main range at right angles, for upwards of 1000 miles towards the fertile plains bordering the shores of the Gulf of Carpentaria.

The climate of Queensland is said to closely resemble that of Madeira; the mean annual external shade temperature, taken at Brisbane, being very nearly the same as at Funchal in Madeira, though it is a little hotter in the summer and colder in the winter at Brisbane than at Funchal. Moreton Bay, now Brisbane, has for many years been the resort of invalids from all the other British colonies in the southern hemisphere, and has been called the Montpellier of Australia. The summer season is hot,—the thermometer rising sometimes to 90° or even 100° in the shade; but the air is dry, elastic, and healthy, and the sea breezes temper the heat, and make it perfectly endurable, even to the outdoor laborer, in the hottest time of the year. However hot the day, the night is almost invariably cool, even in the most northern parts of the colony.

The growth of cotton and of the sugar-cane has been attempted in recent years, and both industries are reported to be rapidly advancing. At the end of 1873, there were 9663 acres under cotton, and 14,495 acres under sugar-cane, out of a total of 64,218 acres under cultivation.

The live stock at the end of 1873 numbered 99,243 horses, 1,343,093 cattle, 7,268,946 sheep, and 42,884 pigs. It is estimated that there are, at present, about 17,000,000 sheep in the colony.

There are several coal mines in the colony, the produce of which, in 1873, amounted to 33,613 ounces, valued at £22,052. Gold fields were discovered in 1867, the principal of them at Gympie Creek, which had a digging population of 5010 at the end of 1873. The total gold produce amounted to 163,972 ounces, valued at £555,310, in 1873.

The total value of the imports and exports of Queensland, during the year 1875, was: Imports, £3,881,726; exports, £4,544,513. The principal articles of export are gold, wool, tin ore, and raw cotton.

The form of government of Queensland was established December 10th, 1859, on its separation from New South Wales. The power of making laws and imposing taxes is vested in a Parliament of two houses, the Legislative Council and the Legislative Assembly. The former consists of 21 members, nominated by the crown for life. The House of Assembly comprises 42 deputies, returned from as many districts, for five years, by the ballot vote of all taxpayers. The executive is vested in a governor appointed by the crown.

Queensland is divided into 17 municipalities, the largest of which, as regards population, is Brisbane. It contains the city of Brisbane, the capital of the colony and the seat of government, with a population of 19,413, at the end of 1872.

At the end of 1873, there were 218 miles of railway open for traffic.

The post office during that year carried 2,459,434 letters, 1,594,792 newspapers, and 93,540 packets. There were 20,998 money orders, to the value of £83,455.

At the end of 1873, there were in the colony, 3609 miles of telegraph wire, wi 73 stations. The number of messages sent in 1873, was 156,608.

An excellent system of primary education, which, since 1870, has been mad is in successful and vigorous operation throughout the colony.

Commission from QUEENSLAND to the International Exhibition:

ANGUS MACKAY, ESQ.
P. A. JENNINGS, ESQ.
W. B. TOOTH, ESQ.
W. HILL, ESQ.
W. R. GORDON, ESQ.
C. STRAGER, ESQ.
T. STOMAN, ESQ.

SEYCHELLES ARCHIPELAGO.

THE island of Rodrigues, the Seychelles Islands, Diego Garcia, and others, are dependencies of the Mauritius. Rodrigues is situated about 300 miles east of Mauritius. It is 26 miles in length by 12 in breadth. It is cultivated by colonists from Mauritius.

The Seychelles, or Mahe Islands, are situated between the parallels of south latitude 4° and 5°; the total number of acres comprised in this group is 50,120; the distance from Mauritius 940 miles. These islands are under the superintendence of a Chief Civil Commissioner (assisted by a Board of Commissioners) at Mahe, who is appointed by the Secretary of State, but is subordinate to the Governor of Mauritius, from whom he takes instructions.

(The above data have been derived from the special Catalogue of the British section.)

TASMANIA.

TASMANIA, formerly known as Van Diemen's Land, is an island about 100 miles S. E. of Australia, from which it is separated by Bass' Strait. It lies between lat. 40° 45′ and 43° 35′ S., and long. 144° 50′ and 148° 20′ E. Its greatest length from N. to S. is 186 miles, its medium breadth 165 miles. The total area is 16,778,000 acres, of which 3,982,003 acres are alienated from the Crown by grant and sale; 1,348,400 acres are held under depasturing licenses from the Crown; the total area under cultivation is 326,486 acres. Wheat is cultivated on 57,633 acres; barley on 5129; oats on 32,704. Consequent on the high duties enforced on agricultural produce by the other Australian colonies, and the fluctuating state of the intercolonial markets, the attention of Tasmanian agriculturists has of late years been turned to the production of wheat for the English market, and this has become the most important article of strictly agricultural produce. The export of grain in the year 1874 was valued at £115,788.

Salubrity and comparative coldness of climate, owing to higher latitude, make Tasmania a breeding station of stud stock for all the Australian continent. The number of horses in 1874 was 23,208, cattle 110,450, and sheep 1,714,168.

Most of the wool produced is merino, the export during the year 1874 amounting to 5,050,920 lbs., which represented a value of £350,713.

Mining industry for many years was confined to gold and coal, but of late tin, iron, and slate have attracted attention. The yield of gold in 1874, produced by 185 persons, was—alluvial 850 oz., quartz 3800 oz. 14 dwt. The quantity of quartz crushed was 3452½ tons. The average yield per ton of stone was 1 oz. 5 dwt. 8½ grs. The average value of gold per ounce was £3 19*s.* 6*d.* for alluvial; quartz, £3 19*s.* 6*d.* The total value of the produce of gold for 1874 was £18,491. The mineral which occupies the greatest share of attention is tin, the supply of ore being practically unlimited. The total amount raised in 1874 was 490 tons, valued at £78 a ton. The only locality in which silver ore has been worked in Tasmania is Pen-

guin Creek. Of iron the quantity raised during 1874 was 1400 tons; of this quantity 1000 tons were raised at Lempriere, West Tamar, and 400 tons at Lewisham.

The island is intersected by valuable coal-measures. At present the output of Tasmanian coal is not extensive, and the island is mainly supplied from Newcastle, New South Wales, although, for domestic purposes, Tasmanian coal is used to a considerable extent.

Of late years attention has been directed to the slate deposits of Tasmania; the high prices ruling for English slates in the colonial markets has induced the Australian Slate Company to commence work on a fair scale. In 1874 a quarter of a million of slates were prepared for sale at Piper's River.

At Ilfracombe Bay there is an extensive bed of pure white clay which seems very refractory, and which, when mixed with fine quartz (also abundant and close at hand), forms an admirable fire-brick. Common clays are found in all directions and the iron companies are now manufacturing bricks. Kaolin or porcelain clay is also found at Circular Head.

In the West Tamar district limestone quarries have been worked for many years past. There is an immense mountain of blue limestone situated about two miles from the township of Latrobe, on the River Mersey. At the River Don there are very large deposits of pure carbonate of lime, and the eastern districts, especially Fingal, abound with lime of various kinds and qualities.

The principal timber trees of Tasmania—such as blue gum, stringy bark, white gum or gum-topped stringy bark, swamp gum, and peppermint tree—furnish a hard, close-grained, and strong timber. Other useful woods are the huon pine, blackwood, myrtle, swamp gum, sassafras, celery-topped pine, silver wattle, ironwood, native cherry, whitewood, pinkwood, and native pear.

Bark is largely exported to England and New Zealand for tanning purposes. The price of ground bark varies from £4 to £6 per ton at the ports. During the year 1874 about 4870 tons were exported, valued at £22,123. Hops are also largely cultivated. In 1874, 819,145 pounds weight were exported, valued at £42,284.

The principal animals are the kangaroo, wallaby, opossum, and bandicoot, the skins of which are all available for tanning purposes, the fur being highly valuable as rugs, etc. The devil and Tasmanian tiger are formidable beasts, and used to make great havoc among the flocks. The tiger is a low, long-bodied animal with powerful forequarters and a dog-like head, weighing sometimes from sixty to seventy pounds. The devil, though not so large, is more hideous in appearance than the tiger.

Of birds 171 species have been observed, but of these only 20 species are supposed to be peculiar to Tasmania. The notes of many of the birds are very musical, the most remarkable being the reed warbler, the tones of which approach those of the nightingale, the black and white magpie, and the butcher-bird. The principal edible birds are varieties of quail, duck, snipe, golden plover, and pigeons.

There are many species of freshwater fish, the most valuable being the cucumber grayling. Among the estuary fish, those most appreciated as edible are the sole, whiting, garfish, and rock-cod. The best of the deep-sea fish are the trumpeter and kingfish. During the last ten years the salmon trout and brown trout, the tench and perch, have been established in many of the rivers and lakes. Salmon and salmon trout have also succeeded.

The chief industries are brewing, milling, jam-making, fellmongering, tanning, and coopering. Most of the beer is excellent, and is appreciated in the other colonies. In 1874 ale to the quantity of 22,900 gallons was exported. The quantity of jam exported in the same year was 2,648,012 lbs., and 179,762 bushels of fruit, valued together at £120,027. Tasmanian leather is excellent, all varieties from kip to kangaroo being supplied of such quality that a great falling off in the importation of inferior leather from European ports has taken place; and in 1874, £15,513 worth was exported from Hobart Town.

There is one remarkable feature distinguishing Tasmania from all other countries whose statistics have been compared with hers which ought not to be passed by unnoticed—namely, the small mortality among children, particularly those under one year of age. Taking an average of five years, the following results have been arrived at. Out of 100 infants born there died within the first year in Tasmania 9.45; in N. S. Wales, 9.57; in Queensland, 11.07; in Victoria, 11.86; in S. Australia, 14.24; the number in England being about 16; in Scotland about 12½. The percentage of deaths of children under five years was: Tasmania, 20.08; N. S. Wales, 42.14; Victoria, 45.50; Queensland, 46.33; S. Australia, 54.17. The proportion of children under five who died to 1000 children of the same age living was: In Victoria (ten years) about 52¼; in England and Wales (thirty years), about 67½; in Tasmania, less than 27. Thus it appears that the mortality of children under five years of age in Tasmania is little more than half that of the least healthy of the Australian colonies. It is also considerably under that of New Zealand, which, as regards the general death-rate, is the most healthy of all the Australasian group.

In 1870 the population, according to the census then taken, numbered 99,328 souls; the estimated population on the 31st of December, 1874, was 104,176. The revenue for 1874 was £327,925, and the expenditure £318,278. The amount expended for public works, roads, bridges, and railways, inclusive of the expenditure on the Launceston and Western District Railway, amounted during the year 1874 to £45,410. The value of imports during the same period was £1,247,785, while that of exports was £925,325.

(The above data have been in part condensed from the official report of the Victoria Exhibition, 1870.)

Commission from TASMANIA to the International Exhibition.

H. P. WELCH, ESQ., Commissioner. P. A. JENNINGS.

TRINIDAD.

TRINIDAD is an island lying to the eastward of Venezuela, between N. latitude 10° 3′ and 10° 50′, W. longitude 61° and 62° 4′ of Greenwich. Its length is 65 miles on the southern and 53 miles on the northern side of the island, and its breadth, on the eastern and western sides respectively, 48 and 49 miles. It is separated from the continent of America by the Gulf of Paria, into which fall the northern mouths of the Orinoco. The area of the island is 1754½ square miles. Port of Spain, the chief town and port of entry, according to the census of 1871, contains 23,561 inhabitants. The second town and port of entry is San Fernando, 26 miles south from Port of Spain, with a population of 5006 inhabitants. There are also the minor island towns of St. John, St. Joseph, Aronca, and Arima. The harbor is the finest in the West Indies.

The revenue for 1874 was £276,529, the expenditure £294,006. The public debt is £100,000 for railways and £47,500 secured on general revenue, but recoverable by the colony from other parties. The imports in 1874 were £1,342,992, the exports, £1,412,260. The census of 1871 showed a population of 109,638.

(The above data are derived from the "Colonial Office List," 1876.)

INDIA.

BRITISH INDIA is the name given to those parts of Hither and Further India placed under the administration of the viceroy, or governor-general of India. It does not include Ceylon, which, although a British possession, has its government entirely separate from that of Hindustan; but it extends along the eastern coast of the Bay of Bengal to 10° south latitude, and thus includes part of Further India, or Indo-China.

The following table, from the statistical abstract, relating to British India, for 1873 shows the area and population of the provinces under British administration:

TERRITORIES AND PROVINCES UNDER THE ADMINISTRATION OF	AREA IN ENGLISH SQ. MILES.	POPULATION.	AVERAGE POP. PER SQ. MILE.
Governor-general of India:			
Ajmere,	2,672	426,268	159
Coorg,	2,000	168,312	84
Berar,	16,960	2,231,565	132
Mysore,	27,077	5,055,412	187
Governor of Madras,	141,746	31,311,142	220
" " Bombay,	127,532	14,042,596	110
Lieutenant-governor of Bengal,	248,231	66,856,859	269
" " Northwest Provinces,	80,901	30,769,056	380
" " Punjab,	102,001	17,596,752	173
Chief Commissioner of Oude,	23,973	11,220,747	465
" " Central Provinces,	84,162	9,066,038	108
" " British Burmah,	93,664	2,562,323	27
	950,919	191,307,070	201

Cotton is the most important product of Hindustan. Wool will probably soon become a great Indian staple. The chief supply is from the Himalaya and Afghan regions. Hemp and flax, silk from the high lands, coffee, linseed, tobacco, and indigo, are all valuable productions of British India. The leaves and silver blossoms of the tea plant are beginning to cover the Himalaya slopes, and the hilly districts of Bengal, the Northwest Provinces, and the Punjab. Great quantities of rice are raised in Southern India and British Burmah. The Malabar district, Martaban, and Tenasserim furnish thousands of logs of the best teak timber. The cinchona or quinine plant has lately been introduced on the Neilgherries with great success, the original plants having been brought over from Peru.

The total value of the imports of British India, during the year 1874, was as follows:

	IMPORTS.	EXPORTS.
Merchandise,	£32,593,609	£54,960,778
Treasure,	5,792,533	1,914,071
Total,	£38,386,142	£56,874,849

The imports and exports, including treasure, were divided as follows:

	IMPORTS.	EXPORTS.
Bengal,	£17,169,310	£23,201,820
British Burmah,	1,852,459	3,480,407
Madras,	3,861,057	7,258,147
Bombay,	15,054,121	21,694,571

The most important articles of exports from India to the United Kingdom, during 1874, were:

		VALUE.
Cotton,	3,668,928 cwts.	£10,325,630
Jute,	4,260,170 "	3,545,124
Rice,	6,387,966 "	3,236,232
Indigo,	62,203 "	1,661,745
Tea,	17,608,538 lbs.	1,566,128
Hides,	321,299 cwts.	1,351,696

Next to the United Kingdom, the countries having the largest trade with India are China and Japan, the imports from which average £8,500,000 per annum, while the exports to them are of the average value of £12,000,000. Exports of the average value of £5,000,000 are also sent to Egypt, in transit for the United Kingdom.

The following figures show the number and tonnage of vessels, including native craft, which entered and cleared during 1874:

	VESSELS.	TONS.
Entered,	20,435	4,424,454
Cleared,	19,629	4,588,428

The executive authority in India is vested in a Governor-general, or Viceroy, appointed by the crown, and acting under the orders of the Secretary of State for India. The Governor-general, in council, has power to make laws for all persons, whether British or native, foreigners or others, within the Indian territories under the dominion of Her Majesty, and for all subjects of the crown, within the dominions of Indian princes and states in alliance with Her Majesty.

The duties of the Council of State are, under the direction of the Secretary of State, to conduct the business transacted in the United Kingdom in relation to the government of and the correspondence with India. The government in India is exercised by the Council of the Governor-general, consisting of five ordinary members, and one extraordinary member, the latter the commander-in-chief.

The total revenue and expenditure, during the year ending March, 1874, were:

	REVENUE.	EXPENDITURE.
In India,	£49,360,142	£44,637,637
In Great Britain,	238,111	10,321,591
Total,	£49,598,253	£54,959,228

In the army estimates for the British forces in India, in the year 1875–76, their strength was stated as follows:

Royal horse artillery,	2,497
Cavalry of the line,	4,330
Royal artillery and engineers,	10,171
Infantry of the line,	45,852
Total,	62,850

Returns of the year 1874 state that the combined armies of the native chiefs of India number 315,000 men, with an artillery of 5300 large guns.

On December 31, 1874, there were 6273 miles of railway, built at an expense of £97,000,000, open for traffic. A further extent of 2518 miles was in course of construction at the commencement of 1875.

In the fiscal year ending March 31, 1874, the number of letters which passed through the post office of British India was 98,531,628, of newspapers, 8,762,200, of parcels, 605,312, and of books and patterns, 1,336,363, being a total of 109,235,303. The mail traveled over 54,617 miles, of which total 41,857 miles were done by boats

and runners, 4003 miles by carts and on horseback, and 5739 miles by railways. Number of post offices and letter boxes, 6805.

There were at the same time 16,436 miles of telegraph lines, 32,148 miles of wires, and 225 telegraph offices. The total number of messages during the year was 788,048.

Efforts for spreading education among the population of India have been made since 1848, in which year the Lieutenant-governor of Agra brought forward a scheme for giving a schoolmaster to every village of at least a hundred families. After three years' discussion, the Court of Directors of the East India Company accepted the groundwork of the plan, and orders were issued directing that a good vernacular school should be established for every cercle of villages, called Hulkabundee, and that the teacher should be paid from a cess of 2 per cent. on the land revenue.

In the year 1871 the number of educational institutions belonging to, aided, or maintained by the government in British India, was 25,147; average attendance of pupils, 799,622; amount expended by government, £749,724; total expenditure from all sources, £1,019,418.

In the northwestern provinces and Madras the foundation has been laid of a national system of education; while the general position for India is that the government has succeeded in establishing a system of public instruction for the upper and middle classes, but has as yet made little or no impression on the middle classes.

CANADA.

THE Dominion of Canada consists of the provinces of Ontario, Quebec—formerly Upper and Lower Canada—Nova Scotia, New Brunswick, Manitoba, British Columbia, and Prince Edward's Island. The two principal provinces, Quebec and Ontario, are almost entirely embraced within the basin of the river St. Lawrence, but occupy only those portions north of the great lakes, and of the river as far as the town of Cornwall (45° north latitude and 74° 45′ west longitude), whence eastward they occupy both banks, and are bounded on the south by the United States. The most westerly limit is the heads of the Pigeon and Arrow rivers, which debouch in Lake Superior. The eastern or maritime provinces embrace no portion of the basin of the great river.

The following table shows the area and population of the various provinces:

	AREA, ENG. SQ. MILES.	POPULATION (1871).
Ontario,	121,260	1,620,851
Quebec,	210,020	1,191,516
Nova Scotia,	18,660	387,800
New Brunswick,	27,105	285,594
Manitoba,	2,891,734	11,953
British Columbia,	213,000	10,586
Prince Edward's Island,	2,173	94,021
Total,	3,483,952	3,602,321

The principal river of Canada is the St. Lawrence. Its most important tributaries are all from the left. The St. Lawrence drains an area of 565,000 miles. The Ottawa, 450 miles long, forms the boundary between Ontario and Quebec. The St. Maurice is nearly 400 miles in length, and the Saguenay, noted for its fine scenery, is 225 miles long. The only affluents from the right worth naming are the Richelieu, the St. Francis, and the Chaudiere.

A great part of Canada, more especially the shores of Lake Superior, is valuable only for mineral resources, such as iron, zinc, lead, copper, silver, gold, cobalt, manganese, gypsum, marl, granite, sandstone, limestone, slate, and marbles of nearly every imaginable color. Considerable portions, also, though heavily timbered, chiefly with pine, are yet but little adapted to settlement and cultivation. Towards the Gulf of the St. Lawrence, again, a considerable section derives importance mainly from the fisheries, being, with partial exceptions in Gaspe, comparatively worthless for every other object. Thus the area for the profitable production of ordinary cereals cannot materially exceed 40,000 square miles, containing, however, within this space a singularly small portion of irreclaimable surface. This cultivable block increases regularly in width and fertility, from its commencement on the lower St. Lawrence to the shores of Lake Huron. Below Quebec—to say nothing of the precarious nature of the crops—there may always be seen, on one or on both sides, the primeval forest. Between that city, again, and the basin of the Ottawa, a gradual improvement shows itself, even on the north side; and towards the south there stretches away to the frontier of the United States a broad belt of generally undulating character, probably the best field in the country for the blending of pasturage and agriculture. From the basin of the Ottawa inclusive, the parallel of the south end of Lake Nipissing may be said to cut off, towards the southwest, the entire residue of the practicable soil, in the shape of a roughly defined triangle, which, as a whole, is at least equal, in the growth of grain in general and of wheat in particular, to any region of the same extent in North America.

The climate of Canada is subject to great extremes of heat and cold, the thermometer ranging between 102° above and 36° below the zero of Fahrenheit.

As Canada slants southwards eight or nine degrees from the mouth of the St Lawrence to that of the Detroit, which communicates between Lakes St. Clair and Erie,

the climate of the west must be warmer than that of the east. Besides, the lakes of Upper Canada appear, in a good measure, to neutralize and mitigate the extremes of a Canadian climate. While Quebec in winter ordinarily enjoys five or six months of sleighing, the corresponding season in Toronto ranges from five or six days to five or six weeks. As to summers, the difference in favor of Toronto is rather in point of duration than of intensity. As indications of the climate of Canada, it may be stated that the isle of Orleans, immediately below Quebec, is famous for its plums, and the island of Montreal for its apples; and from the neighborhood of Toronto to the head of Lake Erie, grapes and peaches ripen without any aid whatever. Melons, again, of large size, come to maturity, through the settled parts of the province, in the open air; and pumpkins and squashes attain enormous size, some of them near Toronto having weighed 300 pounds.

The following statistics of the mining, agricultural, and manufacturing industries are taken from the Official Report of the Canadian Census of 1871. They refer only to the provinces of Ontario, Quebec, New Brunswick, and Nova Scotia.

RAW MINERAL PRODUCTS.

Coal,	671,008 tons.	Gold,	22,941 oz.
Iron ore,	129,363 "	Silver,	69,197 "
Copper ore,	13,310 "	Phosphate of lime,	1,980 tons.
Pyrites,	2,800 "	Mica,	4,010 lbs.
Manganese,	635 "	Crude petroleum,	12,969,435 galls.
Other ores,	14,063 "	Grained marble,	8,870 cub. ft.
Peat,	14,772 "	Building stone for dressing,	5,206,796 "
Plumbago,	270 "	Roofing slate,	6,013 sqs.
Lump gypsum,	114,433 "		

The statistics of agriculture are as follows:

Spring wheat,	10,355,912 bushels.	Beans,	220,644 bushels.
Winter wheat,	6,367,961 "	Buckwheat,	3,726,484 "
Barley,	11,496,068 "	Corn,	3,802,830 "
Oats,	42,489,463 "	Potatoes,	47,330,187 "
Rye,	1,064,354 "	Turnips,	24,339,476 "
Peas,	9,905,720 "	Grass and clover seed,	348,605 "
Hay,	3,818,641 tons.		

The principal items of furs are 488,182 muskrats, 49,799 minks, 48,151 beavers, 19,271 moose, cariboo and deer, 17,582 martens, 37,402 seals, 12,861 foxes, 6132 otters, and 2553 bears.

The following are the statistics of manufactures:

Capital invested,	$77,964,020
Number of hands employed,	187,942
Amount of yearly wages,	40,851,009
Value of raw material,	124,907,846
Total value of products,	221,617,773

The statistics of the fisheries are as follows: Vessels, 991, men, 6984; boats, 16,876, men, 25,876; shoremen, 4647; fathoms of nets, 1,879,435.

The leading items of the product of the fisheries were 682,631 quintals of cod, 120,213 quintals of haddock, 417,300 barrels of herring, 77,925 barrels of mackerel, 2491 gallons of cod-liver oil, and 676,403 gallons of other fish oils.

The foreign trade, during 1874, was, including bullion and specie, as follows: Imports, $128,213,582; exports, $89,851,928. The trade of the Dominion of Canada is chiefly with the United States and Great Britain.

The "British North American Act, 1867," orders that the constitution of the Dominion shall be "similar in principle to that of the United Kingdom;" that the executive authority shall be vested in the sovereign of Great Britain and Ireland, and carried on in her name by a Governor-general and Privy Council; and that the legislative power shall be exercised by a Parliament of two Houses, called the Senate and the House of Commons. Provision is made in the act for the admission of Newfoundland, still an independent province of British North America, into the Dominion of Canada. The seven provinces forming the Dominion have each a separate parliament and administration, with a Lieutenant-governor at the head of

the executive. They have full power to regulate their own local affairs, dispose of their revenues, and enact such laws as they may deem best for their own internal welfare, provided only they do not interfere with, and are not adverse to, the action and policy of the central administration under the Governor-general.

The public debt of the Dominion, incurred chiefly on account of public works, and the interest on which forms the largest branch of the expenditure, was $116,082,917 on the 1st of July, 1875. The total revenue during the year ending June 30th, 1874, was $39,930,791; the total expenditure during the same period, $36,524,876.

The strength of the troops maintained by the imperial goverment, and forming the garrison of Halifax, was reduced, in 1871, to 2000 men. Besides these, Canada has a large volunteer force, and a newly organized militia. By the terms of the act passed in March, 1868, "to provide for the defence of the Dominion," the militia consists of all British subjects between the ages of 18 and 60, who are called out to serve in four classes, namely: 1st class, 18 to 30, unmarried; 2d, from 30 to 45 unmarried; 3d, 18 to 45, married; 4th, 45 to 60. A general order from the Militia Department, issued in 1874, reduced the active militia force, for the purposes of drill and pay, for the years 1874 and 1875, to 30,000 officers and men. Two schools of military instruction for infantry are established in each of the provinces of Ontario and Quebec, and one in each of the provinces of New Brunswick and Nova Scotia.

The naval forces of Canada consisted, in 1875, of 8 screw steamers, carrying 18 guns. Besides these, the government owned two fast steamers, employed on coast service, not fitted with guns, but available as gunboats.

The total shipping registered on the 31st of December, 1874, was 6930 vessels of a burthen of 1,158,363 tons. Included in this were 634 steamers, of 76,487 tons.

At the end of October, 1874, Canada had a network of railways of a total length of 4022 miles. There were, at the same period, lines of a total length of 1120 miles in course of construction, and 3000 miles more had been surveyed and concesssions granted by the government.

On June 30th, 1875, there were in the Dominion, 3943 post offices. The number of letters and post-cards sent through the mails, during the year, was 34,750,000; of newspapers, 25,480,000.

The provinces of Quebec and Ontario have separate school laws, adapted to the religious element prevailing in either. Each township in Ontario is divided into several school sections, according to the requirements of inhabitants. The common schools are supported partly by the government and partly by local self-imposed taxation, and occasionally by the payment of a small fee for each scholar. All teachers must pass an examination before a county board of educators, or receive a license from the provincial normal school, empowering them to teach, before they can claim the government allowance.

Commission from CANADA to the International Exhibition:

SENATOR LUC LETELLIER DE ST. JUST, Minister of Agriculture, President.

Honorary Commissioners.

HON. S. C. WOOD, Provincial Treasurer.
HON. P. A. GARNEAU Minister of Agriculture.
HON. P. CARTERET HILL, Provincial Secretary.
HON. J. J. FRAZER, Provincial Sect'y.
HON. L. C. OWEN, Attorney-General.
HON. W. J. ARMSTRONG, Minister of Agriculture.
HON. MR. NOLIN, Minister of Agriculture.

Executive Commissioners.

HON. E. G. PENNY, Senator Montreal.
HON. R. D. WILMOT, Senator Sanbury.
D. MACDOUGALL, ESQ., Berlin.
J. PERRAULT, ESQ., Secretary.

FRANCE.

FRANCE is the most westerly state of Central Europe, extending from 42° 20′ to 51° 5′ north latitude, and from 7° 45′ east to 4° 45′ west longitude. It is bounded on the north by the Channel and the Straits of Dover, which separate it from England, by Belgium, the grand duchy of Luxembourg; on the east by Germany, Switzerland, and Italy, on the south by the Mediterranean and Spain, from which it is separated by the Pyrenees, and on the west by the Atlantic Ocean (the Bay of Biscay). The greatest length of France, from Dunkirk, in the north, to the Col de Falguere, in the south, is about 620 miles; its greatest breadth from east to west, from the boundary line in the Vosges to Cape St. Matthieu, in Finisterre, is about 550 miles. The superficial area of France, including the two Savoy provinces and Corsica, is reckoned at about 201,600 square miles. The possessions of France, which are situated in the non-European parts of the world, have a total superficial area of 463,827 square miles, and the largest is Algeria, with an area of 258,310 square miles. France is divided into 86 departments. The total population, exclusive of Algeria and the colonies, was given (in 1872) at 36,102,921.

The colonies and foreign possessions of France in Africa are Algeria, Senegambia, the islands of Bourbon (Reunion), St. Marie, Mayotte, and Nussi-be, in the Indian Ocean, and Gaboon, on the coast of Guinea. The total possessions in Africa cover an area of about 270,000 square miles, with a population of 2,840,000 souls. In America are the islands of Martinique and Guadaloupe in the West Indies, French Guiana, or Cayenne, with St. Pierre and Miquelon, near Newfoundland; forming together an area of 45,000 square miles, with a population of 345,000. In Asia, the Indian settlements of Pondicherry, Mahe, Karikal, Yanaon, and Chaudernagore, comprise 19,600 square miles, with a population of 265,000. A settlement has also been made in Cochin China, embracing 21,700 square miles and 1,336,000 inhabitants, and a protectorate declared over the Empire of Anam. In the Pacific Ocean are two groups, the Marquesas and Tahiti, and New Caledonia, with the Loyalty Isles, the whole forming an area of 11,182 square miles, with 87,000 inhabitants.

The following table gives the population, in 1872, of some of the largest cities in France:

Paris,	1,850,000
Lyons,	323,000
Marseilles,	313,000
Bordeaux,	194,000
Lille,	158,000
Toulouse,	125,000
Nantes,	119,000
St. Etienne,	111,000
Rouen,	102,000

There are four great mountain chains belonging to France—the Pyrenees which separate the French territory from Spain; the Cevenne-Vosgian range, running north and south between the Moselle and the new boundary line; the Alps, which separate the Swiss territory from the provinces of Savoy and Nice; and the Sardo-Corsican range which belongs, as the name implies, to the islands of Sardinia and Corsica. The highest peaks in the Pyrenees are the Maladetta and Mont Perdu (10,886 feet and 10,994 feet); in the Cevenno-Vosgian range, the greatest height

(the Widderkalm) does not greatly exceed 7000 feet. The French portion of the Alps now includes several of the highest mountains and most elevated passes of the ranges, as Mont Blanc, 15,744 feet; Mont Iseran, 13,272 feet; Mont Cenis, 11,457 feet; and the pass of Little St. Bernard, 7190 feet, etc. In Corsica, the highest peak rises to an elevation of 9000 feet. The grand water-shed of France is the Cevenno-Vosges chain, which determines the direction of the four great rivers, the Seine, the Loire, the Garonne, and the Rhone; the first three of which flow north-west into the Bay of Biscay and the English Channel, and the fourth into the Gulf of Lyons.

The entire extent of river navigation in France amounts to 5500 miles, or 8,900,000 metres, while the 99 larger canals, which have been constructed either to connect the various river courses or to supply entirely new channels of water communication, extend over a length of 2900 miles, or 4,700,000 metres. The most important of these works are the canals connecting Nantes and Brest, and the Rhone with the Rhine, and those of Berry, Nivernais, and Bourgogne.

France is peculiarly rich in mineral springs, of which there are said to be nearly 1000 in use. Of these, more than 400 are situated in the group of the Pyrenees, where there are 93 establishments for their systematic use. It is estimated that there are, moreover, fully 4000 springs not hitherto employed.

According to M. Maurice Block's estimate, the physical and agricultural character of the soil of France may be comprised under the following heads:

	HECTARES.*
Mountainous districts, heaths, and commons,	9,944,839
Rich land,	7,276,399
Chalk, or lime districts,	9,788,197
Gravel, stony and sandy,	15,951,618
Clay, marshy, miscellaneous,	9,807,577
	52,768,600

The same writer further subdivides the soil of France, according to its actual employment, under the following heads:

	PER CENT. OF THE WHOLE ACRE.
Arable lands,	48.3
Meadow lands,	9.7
Vineyards,	3.7
Cultivated lands,	17.8
Roads, streets, public walks, etc.,	3.7
Forest and unproductive lands,	16.8

France possesses one of the finest climates in Europe, although, owing to its great extent of area, very considerable diversities of temperature are to be met with. The mean annual temperature of different parts of France has been estimated as follows, by Humboldt: Toulon, 62° F.; Marseilles, 59.5°; Bordeaux, 56°; Nantes, 55.2°; Paris, 51.2°; Dunkirk, 50.5°.

The following are the statistics of agricultural productions for the year 1869:

	HECTOLITRES.†
Wheat,	108,000,000
Rye,	24,000,000
Barley and oats,	90,000,000
Maize,	10,000,000
Potatoes,	100,000,000

The production of beet-root sugar in 1872–73 amounted to 418,000 tons. The average yearly produce of the vineyards of France is estimated at about 50,000,000

* The *hectare* is equal to about 2.47 English acres.

† The *hectolitre* equals 2.75 bushels.

of hectolitres (about 1,000,000,000 of gallons). Of this about one-seventh is made into brandy.

The principal forest trees are the chestnut and beech on the central mountains, the oak and cork tree in the Pyrenees, and the fir in the Landes. The destruction of the national forests has been enormous within the last two centuries, but measures have been taken in recent years to plant wood, in order to protect those mountain slopes which are exposed to inundations from mountain torrents, and to provide a supply for the ever-increasing demand for fuel. About one-seventh of the entire territory of France is still covered with wood. Turf taken from the marshy lands is extensively used, more especially in the rural districts, for fuel.

According to the census of 1866—the most recent in regard to animals—there were in France 3,312,637 horses, 518,000 asses, 350,000 mules, 12,733,000 horned cattle, 30,386,000 sheep, 5,500,000 swine, and 1,680,000 goats. There were, according to the *Statistique Agricole* for 1858, about 3,000,000 of beehives, valued at rather more than 24,000,000 of francs; the mean annual returns are, for honey, 6,670,000, and for wax, 1,620,000 kilogrammes.* Poultry constitutes an important item of farm produce in France, estimated at 45,500,000 of francs, while the eggs and feathers yield 35,250,000 of francs.

The following figures show the condition of the merchant navy of France on the 31st of December, 1873:

		TONNAGE.	MEN.
Sailing vessels,	15,043	882,866	88,541
Steam vessels,	516	185,165	10,448
	15,559	1,068,031	98,989

The *cabotage*, or internal coasting traffic, is a great source of financial wealth to the State, to which all rivers and canals belong. In 1873, it employed 2776 vessels, with a tonnage of 122,850 and an equipment of 10,871.

The chief mineral products of France are coal and iron, in the excavation of which nearly 250,000 men were employed in 1868. The production of coal in 1868 was 132,000,000 of quintals, the quintal being equal to 1.97 hundredweight. During the same year, there were 150 iron mines in operation, yielding 34,500,000 of quintals, more than half of this quantity being obtained from the five departments of Haute-Marne, Haute-Saone, Cher, Moselle, and Nord. Argentiferous galena, a little silver and gold, copper, lead, manganese, antimony, and tin occur, but hitherto their working has not proved very productive. The department of Charento-Inferieure yields the largest amount of salt, the mean annual produce being 1,500,000 of quintals (2,500,000 of francs), which is fully one-third of the entire annual produce of the whole country. France derives about 41,000,000 of francs from its quarries of granite and freestone, its kaolin, marbles, sands, lithographic stones, millstones, etc. Granite and syenite are found in the Alps, Vosges, Corsica, Normandy, and Burgundy; porphyry in the Vosges; and basalt and lava, for pavements, in the mountains of Auvergne. Marble is met with in more than 40 departments; alabaster occurs in the Pyrenees; the largest State quarries are near Cherbourg and St. Lo.

The following list gives an approximate estimate of the value of the chief products of French industry:

	MILLIONS OF FRANCS.
Linen fabrics,	250
Cotton fabrics,	650
Woolen fabrics,	950
Silk fabrics,	1000
Mixed fabrics,	330
Jewelry, watchmaking,	35
Gilt wares,	12

* The kilogramme equals 2.2 pounds avoirdupois.

Minerals, mines, salt, etc.,	600
Articles of food, as sugar, wines, etc.,	364
Skins, leather, oils, tobacco,	556
Bone, ivory, isinglass, etc.,	30
Chemical products,	80
Ceramic arts,	86
Paper, printing,	60
Forests, fisheries,	98

The total imports, for 1873, were 4,576,000,000, and the total exports, for the same year, 4,822,000,000 of francs.

France was proclaimed a republic on the 4th of September, 1870. According to the law of February 25th, 1875, the legislative power is vested in the two Houses, the Chamber of Deputies and the Senate. The Chamber of Deputies is elected by universal suffrage. The Senate is composed of 300 members, 225 of whom are elected by the departments and the colonies, and 75 by the National Assembly. The President of the republic is elected by a majority of the votes of the Senate and Chamber of Deputies, united as the National Assembly. His term of office is for seven years, and he is eligible for re-election.

According to the budget for 1876, the estimated receipts for the year are put down at 2,575,028,582 francs, and the expenditures at 2,570,505,513. The public debt is 23,403,000,000 francs.

The nominal strength of the army, on a peace footing, is given in the latest government returns as 490,332 men; on a war footing, 1,750,000.

The navy of France was composed, at the end of 1873, of 62 ironclads, 264 unarmored screw steamers, 62 paddle steamers, and 113 sailing vessels.

According to the official report for December, 1874, the railways in operation measure 20,711 kilometres, or about 12,866 miles. With the exception of less than 500 miles, the railways of France are held by six companies, which are under the superintendence of the State.

The number of letters forwarded by the post office, in 1874, was 341,068,000; newspapers, postal cards, and parcels, 331,786,000.

At the end of 1873, there were 45,942 kilometres of lines of telegraphs, comprising 123,669 kilometres of wire. The number of messages sent, in 1873, was 6,225,000, of which nearly one-fourth were international messages. There were annual deficits since the establishment of the public telegraph department, in March, 1851. There were 2206 telegraph offices at the end of 1873.

Public instruction is presided over in France by a special ministry. Nearly half the expenses connected with it are defrayed by the State, and the remainder by the departments. There are 15 academies, located in the following towns: Aix, Besancon, Bordeaux, Caen, Clermont, Dijon, Douai, Grenoble, Lyon, Montpellier, Nancy, Paris, Poitiers, Rennes, Toulon. These academies are divided into the five faculties of theology, law, medicine, sciences, and literature, and supplemented by various superior and preparatory schools. The professors are paid partly by the State and partly by fees. Secondary instruction has received an immense impetus during the present century. The different departments share very unequally in the diffusion of education, and it may be generally observed that the proportion of the educated is highest in the northern and eastern districts of France. France supports numerous colleges and schools for instruction in special branches of knowledge. There are also numerous agricultural, forest, farming, and veterinary schools, besides the Ecole Polytechnique, specially designed to prepare youths for the public services; and military and naval colleges at St. Cyr, Saumur, Paris, Vincennes, Brest, Toulon, and St. Denis.

Paris possesses several libraries belonging to, and supported by, the State, but freely opened to the public. There are 338 public libraries in the provinces, to all of which access is afforded in the most liberal spirit. France is rich in public galleries of painting, statuary, and articles of *vertu*. The expenses of secondary and

primary education, literary and scientific institutions, etc., are charged in the budget for 1876 at 44,912,545 francs.

(Detailed information as to the colonial dependencies of France will be found under the appropriate headings in other portions of the catalogue.)

Commission from FRANCE to the International Exhibition:

M. M. OZENNE, Counsellor of State, Secretary-General of the Ministry of Agriculture and Commerce, Commissioner-General of International Exhibitions.

DU SOMMERARD, Director of the Museums of Thermes and Cluny, Commissioner-General of International Exhibitions.

Committee.

Organized under the Presidency of the Minister of Agriculture and Commerce.

M. DUCLERC, Vice-President of the National Assembly, Member of the Committee on International Exhibitions.
MARQUIS DE TALHOUET, Deputy.
BARON DE SOUBEYRAN, Deputy.
MR. WOLOWSKI, Deputy.
MARQUIS DE LAFAYETTE, Deputy.
M. BONNET, Deputy.
M. FLOTARD, Deputy.
M. LABOULAYE, Deputy.
M. DIETZ-MONIN, Deputy.
M. COUNT DE BOUILLE, Deputy.
VISCOUNT D'HAUSSONVILLE, Deputy.
M. DE CHABROL, Deputy.
M. JULLIEN, Deputy.
The Secretary-General of the Ministry of Agriculture and Commerce.
The Director-General of Customs.
The Director of the Academy of Fine Arts.
The Director of Consulates and Commercial Affairs, at the Ministry of Foreign Affairs.
M. OUTREY, Minister Plenipotentiary.
M. DU SUMMERARD, Director of the Museum of Thermes and Cluny.
The Assistant Director of Foreign Commerce.
The President of the Paris Chamber of Commerce.
M. GUILLAUME, Member of the Institute.
MARQUIS DE ROCHAMBEAU.
BARON ALPHONSE DE ROTHSCHILD.
M. SIEBER.
M. ALFRED MAME.
M. JULES LAVEISSIERE, Dealer in Metals.
M. ROULLEAUX DUGAGE, Secretary.
M. DE FALLOIS, late Chief of Bureau, Ministry of Public Works, Assistant Secretary.

Resident Commissioners.

MR. DE LAFOREST, Consul-General of France, Commissioner-General.
MR. RAVIN D'ELPEUX, Vice-Consul.
CAPT. ANFRYE, Military Attache, French Legation.
MR. BAZERGNE, Attaché.
MR. A. IMBERT GOUZBEYRE, Secretary.

GERMANY.

THE German Empire occupies the central portion of Europe, and extends from 6° to 22° 40′ east longitude and 49° 7′ to 55° 50′ north latitude. It is bounded on the north by the German Ocean, the Danish Peninsula, and the Baltic; on the east by Russia and Austria; on the south by Russia, Austria, and Switzerland, and on the west by France, Belgium, and the Netherlands. The population (1871) is about 41,000,000. Its area is estimated at 208,000 square miles, or about one-sixteenth of that of all Europe. The coast line measures about 950 miles.

Germany is composed of an aggregation of 26 different States. The following list gives the names of these States, their population, area, and the number of members representing each in the Bundesrath, or Federal Council, and the Reichstag, or Imperial Diet:

STATES.	POPULATION IN 1871.	AREA IN SQUARE MILES.	NO. OF MEMBERS IN BUNDESRATH.	NO. OF DEPUTIES IN REICHSTAG.
Kingdoms:				
1. Prussia,	24,691,307	139,751	17	236
2. Bavaria,	4,863,450	29,280	6	48
3. Saxony,	2,556,244	5,780	4	23
4. Wurtemburg,	1,818,539	7,532	4	17
Grand Duchies:				
5. Baden,	1,461,562	5,850	3	14
6. Hesse,	852,894	2,962	3	9
7. Mecklenburg-Schwerin,	557,897	5,136	2	6
8. Saxe-Weimar,	286,183	1,403	1	3
9. Mecklenburg-Strelitz,	96,982	1,130	1	1
10. Oldenburg,	314,777	2,470	1	3
Duchies:				
11. Brunswick,	311,764	1,425	2	3
12. Saxe-Meiningen,	187,884	955	1	2
13. Saxe-Altenburg,	142,122	510	1	1
14. Saxe-Coburg-Gotha,	174,339	760	1	2
15. Anhalt,	203,437	896	1	2
Principalities:				
16. Schwarzburg-Rudolstat,	75,523	367	1	1
17. Schwarzburg-Sondershausen,	67,191	332	1	1
18. Waldeck,	56,224	438	1	1
19. Reuss (altere Linie),	45,094	123	1	1
20. Reuss (jungere Linie),	89,032	320	1	1
21. Schaumburg-Lippe,	32,059	170	1	1
22. Lippe-Detmold,	111,135	438	1	1
Free Towns:				
23. Lubeck,	52,158	110	1	1
24. Bremen,	122,402	97	1	1
25. Hamburg,	338,974	158	1	3
26. Alsace-Lorraine,	1,549,459	5,590		
	41,058,632	208,613	58	382

The *Almanac de Gotha*, for 1876, divides the population of the German Empire, in regard to nationality, as follows: Germans, 37,820,000; Poles, 2,450,000; Wends, 140,000; Czechs, 50,000; Lithuanians and Courlanders, 150,000; Danes, 150,000; French and Walloons, 210,000. The Germans admit of being divided into high and low Germans; the phraseology of the former is the cultivated language of all the German States; that of the latter, known as *Platt-Deutsch*, is spoken in the north and northwest. The Poles are found exclusively in the east and northeast of Prussia; the Czechs in Silesia, about Appeln and Breslau; the Wends, in Silesia, Brandenburg, and Prussian Lusatia; the Lithuanians and Courlanders in east Prussia; the Danes, in Schleswig; the Walloons, about Aix-la-Chapelle, in Rhenish Prussia, and the French, partly in the same region, and in Alsace and Lorraine.

Germany presents two very distinct physical formations. First, a range of high table land, occupying the centre and southern parts of the country, interspersed with numerous ranges and groups of mountains, the most important of which are the Harz and Teutoburger in the north, the Taunus and Thuringerwald in the middle, and the Schwarzwald and Raube Alps in the south, and containing an area, including Alsace and Lorraine, of 110,000 square miles. Second, a vast sandy plain, which extends from the centre of the empire north to the German Ocean, and including Schleswig-Holstein, contains an area of about 98,000 square miles. This great plain, stretching from the Russian frontier on the east to the Netherlands on the west, is varied by two terrace-like elevations. The one stretches from the Vistula into Mecklenburg, at no great distance from the coast of the Baltic, and has a mean elevation of 500 to 600 feet, rising in one point near Danzig to 1020 feet; the other line of elevations begins in Silesia, and terminates in the moorlands of Luneberg, in Hanover, its course being marked by several summits from 500 to 800 feet in height. A large portion of the plain is occupied by sandy tracts, interspersed with deposits of peat; but other parts are moderately fertile, and admit of successful cultivation.

In respect of drainage the surface of Germany belongs to three different basins. The Danube, from its source in the Schwarzwald to the borders of Austria, belongs to Germany, and through this channel the waters of the greater part of Bavaria are poured into the Black Sea, thus opening up communication with the east. The greater part of the surface, however (about 185,000 square miles), has a northern slope, and belongs partly to the basin of the North Sea, and partly to the basin of the Baltic. The chief German streams flowing into the North Sea are the Rhine, the Weser, and the Elbe; into the Baltic, the Oder and the Vistula.

The most important of the numerous canals of Germany are the Ludwig's canal, in Bavaria, connecting the Danube and Main, and thus opening a communication between the Black Sea and the German Ocean; the Finow and Friedrich Wilhelm's canals, in Brandenburg; the Plaue canal, connecting the Elbe and the Havel; and the Kiel and Eyder canal, uniting the Baltic and the German Ocean. Numerous lakes occur both in the table-land of southern Germany, and in the lowlands of the northern district, but few of them are of any great size. Mineral springs occur principally in Nassau, Wurtemburg, Baden, Bavaria, and Rhenish Prussia. Many of these springs have retained their high reputation from the earliest ages.

The climate of Germany presents less diversity than a first glance at the map might lead one to infer, for the greater heats of the more southern latitudes are considerably modified by the alpine character of the country in those parallels, while the cold of the northern plains is mitigated by their vicinity to the ocean. The average decrease in the mean temperature is in going from south to north, about 1° F. for every 52 miles; and in going from west to east, about 1° F. for every 72 miles. The line of perpetual snow varies from 7200 to 8000 feet above the level of the sea. The mean annual fall of rain is 20 inches.

The following table shows the mean temperature at different points:

	MEAN ANNUAL TEMPERATURE.	SUMMER.	WINTER.
Hamburg,	47.	64	30
Dresden,	48.	67	29
Frankfort-on-the-Main,	48.5	66	31
Berlin,	46.5	66	27
Hanover,	48.	63	33
Königsberg,	43.	62	24

Germany is rich in mineral products, among which the most important are silver, found in the Hartz mountains; iron in numerous mountain ranges; salt in many parts of the country; coal in Rhenish Prussia, Silesia. Cobalt, arsenic, sulphur, saltpetre, alum, gypsum, bismuth, pumice-stone, tripoli-slate, kaolin, emery, ochre, and vitriol, are all among the exports of Germany.

The following figures show the product of the principal mining industries of Germany (exclusive of Alsace and Lorraine) for the year 1870:

	NO. OF WORKS.	PERSONS EMPLOYED.	PRODUCT IN CWT.	VALUE IN THALERS.
Coal (including brown coal),	1362	145,782	680,060,074	61,863,399
Iron ore,	1258	24,793	58,550,539	7,116,828
Zinc ore,	72	9,797	7,335,603	2,315,429
Lead ore,	174	18,057	2,111,810	5,511,235
Copper ore,	3	6,156	4,147,627	1,619,938

The yield of salt, for the same year, was 14,658,990 hundredweight, from 69 works, employing 4610 persons, and valued at 3,926,650 thalers.

The leading products of the metallurgical industries are given as follows:

	WORKS.	PERSONS EMPLOYED.	AMOUNT PRODUCED IN CWT.	VALUE IN THALERS.
Cast iron,	631	39,525	29,942,264	49,251,650
Wrought iron (including wire, bars, and manufactured iron of various kinds),	354	43,849	17,437,766	57,490,284
Steel,	216	12,892	3,399,027	22,747,626
Zinc,	53	6,256	1,727,570	10,212,259
Silver,	10	1,601	(lbs.) 185,847	5 549,943
Lead (products of),	17	1,513	1,195,753	6,951,164
Copper,	28	1,971	174,687	4,667,535

The entire production of mines, furnaces, salt works, etc., is given as 824,965,732 hundredweight, valued (including 186,270 pounds of gold and silver) at 246,482,099 thalers.

The vegetable products comprise a very large proportion of the European flora. All the ordinary cereals are extensively cultivated in the north, and largely exported, chiefly from Wurtemberg and Bavaria; hemp and flax, madder, woad, and saffron grow well in the central districts, where the vine, the cultivation of which extends in suitable localities as far north as 51°, is brought to greater cultivation—the best wine-producing districts being the valleys of the Danube, Rhine, Main, Neckar, and Moselle, which are, moreover, generally noted for the excellence of their fruits and vegetables. Tobacco is grown in sufficient quantities for extensive exportation on the Upper Rhine, the Werra, and Oder. The hops of Bavaria have a high reputation, and the chicory grown in that country and in the district between the Elbe and

the Weser finds its way all over Europe as a substitute for coffee. The average annual product of cereals is approximately as follows:

Rye,	89,000,000 hectolitres.*
Oats,	87,000,000 "
Wheat,	34,000,000 "
Barley,	30,000,000 "

The average annual potato crop amounts to 272,000,000 hectolitres. The production of beets, in 1872, was over 61,000,000 hundredweight. A fair yield of wine is about 4,500,000 hectolitres, and of tobacco, about 700,000 hundredweight.

The most extensive forests are found in central Germany, and in some parts of Prussia, while the northwestern parts of the great plain are deficient in wood, the place of which is in some degree supplied by the abundance of turf yielded by the marshy lands. Germany has long been noted for the good breed of horses raised in the northern parts of the continent, while Saxony, Silesia, and Brandenburg have an equal reputation for their sheep-flocks, and the fine quality of the wool which they yield. The rich alluvial flats of Mecklenburg and Hanover are celebrated for their cattle; the forests of northern and central Germany abound in swine, and in small game of various kinds; while the Bavarian Alps afford shelter to the larger animals, as the chamois, the red deer and wild goat, the fox, marten, and wolf.

According to the last enumeration of live stock, there were in Germany 3,500,000 horses, 15,000,000 cattle, 30,000,000 sheep, 8,000,000 swine, and 2,000,000 goats. The wool crop for 1869 amounted to 750,000 hundredweight.

Among the fishes of Germany, the most generally distributed are carp, salmon, trout, and eels; the rivers contain also crayfish, pearl-bearing mussels, and leeches. The oyster, herring, and cod fisheries constitute important branches of industry on the German shores of the Baltic and North Seas.

The preservation and cultivation of woods receive almost as much attention in Germany as agriculture, and, like the latter, are elevated to the rank of a science. The larger woods and forests in most of the states belong to the government, and are under the care of special boards of management, which exercise the right of supervision and control over all forest lands, whether public or private. The value of the forests of Germany was, in 1873, estimated at 666,000 thalers.

The oldest and most important of the German industrial arts are the manufactures of linen and woolen goods. The chief localities for the cultivation and preparation of flax, and the weaving of linen fabrics, are the mountain valleys of Silesia, Lusatia, Westphalia, the Harz, and Saxony (for thread laces); while cotton fabrics are principally made in Rhenish Prussia and Saxony. The same districts, together with Pomerania and Bavaria, manufacture the choicest woolen fabrics, including damasks and carpets. Toys, wooden clocks, and wood-carvings, which may be regarded as almost a specialty of Germany industry, are carried to the greatest perfection in the hilly districts of Saxony, Bavaria, and the Black Forest. The best iron and steel manufactures belong to Silesia, Hanover, and Saxony. Silesia probably possesses the finest glass manufactories; while Saxony and Prussia stand pre-eminent for the excellence of their china and earthen wares. Augsburg and Nuremberg dispute with Munich and Berlin the title to pre-eminence in silver, gold, and jewelry work, and in the manufacture of philosophical and musical instruments; while Leipzig and Munich claim the first rank for type foundries, printing, and lithography. The trading cities of northern Germany nearly monopolize the entire business connected with the preparation of tobacco, snuff, etc., the distillation of brandies, and the manufacture of sugar from the beet, potato, and other roots; while vinegar and oils are prepared almost exclusively in central and southern Germany.

The constitution of the empire is confederate, under the presidentship of the King of Prussia, who bears the hereditary title of German Emperor. He has the right

* The hectolitre equals 2.75 bushels.

and duty of representing the empire in all respects on international law, of declaring war in the name of the empire, making peace and treaties, etc. For a declaration of war the consent of the Bundesrath is necessary. He is the commander-in-chief of the whole army and navy, in peace as well as in war, except the military powers of Wurtemberg and Bavaria, which—in times of peace only—form separate corps under the command of their respective kings. He names and dismisses the officers and functionaries of the empire. His orders, issued in the name of the empire, must be countersigned by the Chancellor, who, as the first minister of the empire, is by his signature responsible for them.

The legislative powers lie in the *Bundesrath* and the *Reichstag*. The former consists of the delegates of the confederate governments, representing in all fifty-eight votes. The Reichstag has 382 members directly elected by the secret ballot of the people. The bills promulgated by these two assemblies in accordance are compulsory on all governments of the empire, and annul *eo ipso* all possible institutions contradictory to them in the several States.

The empire has no debt. The debts of the separate States amounted, in 1873, to 1,093,800,000 thalers, 589,300,000 of which sum was for railways.

The army consists, on a peace footing, of about 400,000 men; on a war footing, of about 1,300,000. The navy comprises 51 vessels, of which number 47 are steamers, of 77,130 horse-power, 64,198 tons burthen, and carrying 321 guns; and 4 sailing vessels (1 frigate and 3 brigs) mounting 36 guns.

The multiplicity of small States into which Germany was long broken up, opposed great obstacles to the development of commerce; but the difficulty has to some extent been obviated by the establishment of the *Zollverein*, or "Customs confederation." The Hanse Towns, Hamburg and Bremen, do not belong to it, being free ports; but it comprises all the other states of the empire and the grand duchy of Luxembourg.

The estimated value of goods exported, imported, and in transit (by the customs lines) for 1873 was as follows:

Imports,	4,257,300,000	marks.
Exports,	2,489,000,000	"
In transit,	1,233,000,000	"

The merchant navy comprised, in 1873, 4748 vessels, including 253 steamers, with a total of 1,201,358 tonnage.

The railways measured, in 1871, about 13,310 English miles; but these figures represent the length, not of the lines within the limits of the German Empire, but of those which are under German administration, though extending some way into neighboring States.

The various telegraphic lines of the empire (excepting those of Bavaria and Wurtemburg) are now under a central administration, and, in 1874, the whole measured 42,571 kilometres; length of wires, 149,410 kilometres; number of messages, 13,422,511; number of offices, 4992.

The post office forwarded in 1874:

Private letters,	521,900,000
Postal cards,	47,900,000
Official letters,	37,700,000
Parcels, etc.,	89,700,000
	697,200,000
Newspapers,	349,600,000
Number of offices,	7,900

Education is more generally diffused in Germany than in any other part of Europe, and is cultivated with an earnest and systematic devotion not met with, to an equal extent, among other nations. The attendance of children at school, for at

least four or five years, is made compulsory in nearly all the German States, and hence the proportion of persons who cannot read and write is exceedingly small in Germany.

The elementary schools are 60,000 in number, and are attended by 6,000,000 pupils between the ages of six and fourteen. Of the middle schools, including 330 gymnasia and 214 pro-gymnasia and Latin schools, there were in 1873 over 1000, attended by 177,379 pupils. There are 21 universities, with (in 1873) 1620 instructors and 17,858 students. Of polytechnic schools there are ten, with 360 instructors and 4500 students. Besides these there are numerous special schools of technology, agriculture, commerce, mining, metallurgy, military science, navigation, trades, etc. The German academies of art and sciences and conservatories of music enjoy a world-wide reputation. Public libraries—of which there are more than one hundred and fifty—museums, botanical gardens, art collections, and picture galleries are to be met with in most of the capitals and many of the country towns.

Commission from the GERMAN EMPIRE to the International Exhibition:

DR. JACOBI, Royal Prussian Actual Privy Superior Government Counsellor and Ministerial Director, President.
DR. STUVE, Royal Prussian Privy Government Counsellor and Counsellor in the Ministry of Commerce.
DR. WEDDING, Royal Prussian Counsellor of Mines.
MR. REITHER, Royal Bavarian Counsellor of Legation.
MR. VON NOSTITZ WALWITZ, Royal Saxon Envoy Extraordinary and Minister Plenipotentiary.
BARON VON SPITZEMBERG, Royal Wurtemberg Envoy Extraordinary and Minister Plenipotentiary.
DR. NEIDHARDT, Grand Ducal Hessian Ministerial Counsellor.
MR. KAUFMANN, Royal Prussian Counsellor of Commerce.
DR. KRUGER, Hanseatic Minister, Resident.
MR. VON HOLLOBEN, Royal Prussian Superior Tribunal Counsellor.
MR. NIEBERDING, Counsellor in the Office of the Chancellor of the Empire.
BARON VON ZEDLITZ, Royal Prussian Provincial Counsellor.
MR. F. REULEAUX, Commissioner General.
MR. KNIFFLER, Assistant Engineer.
G. A. RADTKE, Secretary.

Resident Commissioners.

JOHN D. LANKENAU, ESQ. | GUSTAVUS REMAK, ESQ.
CHARLES H. MEYER, ESQ., Consul. | DR. FRED. VOLCK.
MR. BARTELS, Engineer and Architect.

AUSTRIA.

THE Austrian Empire forms, on the whole, a compact territory with a circumference of about 5349 miles. It is included between 42° to 51° north latitude, and between 8° 20′ to 26° 20′ east longitude. The body of the empire lies in the interior of the European continent, though, by means of the southern projection of Dalmatia, it has about 1200 miles of sea-coast on the Adriatic. With the rest of its circumference, it borders on the States of the Church, Modena, Parma, Italy, Switzerland, Bavaria, Saxony, Prussia, Russia, Moldavia, Wallachia, Servia, Turkey, and Montenegro. Its present provinces embrace an area of 241,123 square miles, and a population which, in 1869, amounted to 35,904,435.

The following table gives the area, number of civil inhabitants, and total population, civil and military, of the various provinces of the empire—distinguishing its two great political divisions, the German monarchy, or Cisleithan Austria, and the Hungarian kingdom, or Transleithan Austria, together with the so-called military frontier, placed under the administration of the ministry of war for the whole empire—according to the official returns for 1869:

PROVINCES.	AREA IN ENGLISH SQ. MILES.	CIVIL POPULATION.	TOTAL POPULATION.
GERMAN MONARCHY.			
Lower Austria,	7,658	1,954,251	1,990,708
Upper Austria,	4,634	731,579	736,557
Salzburg,	2,768	151,410	153,159
Styria,	8,674	1,131,309	1,137,990
Carinthia,	4,007	336,400	337,694
Carniola,	3,858	463,273	446,334
Coast Land,	3,085	582,079	600,525
Tyrol and Vorarlberg,	11,321	878,907	885,789
Bohemia,	20,763	5,106,069	5,140,544
Moravia,	8,579	1,997,897	2,017,274
Silesia,	1,988	511,581	513,352
Galicia,	30,320	5,418,016	5,444,683
Bukowena,	4,037	511,964	513,404
Dalmatia,	4,942	442,796	456,961
Total German Monarchy,	116,634	20,217,531	20,934,980
KINGDOM OF HUNGARY.			
Hungary,	82,867	11,117,623	11,118,502
Croatia and Slavonia,	7,445	1,160,085	1,164,806
Transylvania,	21,222	2,101,727	2,115,024
Military Frontier,	12,956	1,037,892	1,041,123
Total Hungary,	124,490	15,417,327	15,509,455
Total Austro-Hungary,	241,124	35,634,858	35,904,435

Three-fourths of Austria is mountainous or hilly, being traversed by three great mountain chains—the Alps, Carpathians, and Sudetes, whose chief ridges are of primitive rock. The Alps are accompanied, north and south, by parallel ranges of calcareous mountains, covering whole provinces with their ramifications. The Carpathians are capped on their northern side by sandstone formations; mountains of the

same character also occupy Transylvania. Springing from the northwest bend of the Carpathians, the Sudetes run through the northeast of Moravia and Bohemia, in which last the range is known as the Riesen gebirge, or Giant mountains. Continuous with this range, and beginning on the left bank of the Elbe, are the Erzgebirge, or Ore mountains, on the confines of Saxony; and veering round to nearly southeast, the range is further prolonged in the Bohemian Forest mountains, between Bohemia and Bavaria. The chief plains of the Austrian empire are: the great plains of Hungary (the smaller of these is in the west, between the offsets of the Alps and Carpathians, and is about 4200 square miles in extent; the other, which is in the east, and traversed by the Danube and the Theiss, has an area of 21,000 square miles), and the plains of Galicia.

From the south point of Dalmatia to the boundary of Italy, Austria has a sea-line of about 1000 miles, not counting the coasts of the numerous islands, the largest of which is Veglia, 23 miles by 12. The chief lakes are: the Platten See, and the Neusiedler See, both in Hungary. The first is navigable by steamers, and both are rich in fish, and have fruitful vineyards around them. The Alps and Carpathians inclose numerous mountain lakes, which are surrounded with wood and rock, and all the other attributes of picturesque scenery. The Long lake in the Tatra mountains lies at an elevation of 6000 feet. The most remarkable of all is the Zirknitz lake, in Illyria. There are extensive swamps or morasses in Hungary. One connected with the Neusiedler See covers some 80 square miles. A good deal has been done in the way of reclaiming lands by draining morasses.

The leading rivers that have navigable tributaries are: the Danube, which has a course of 849 miles within the Austrian dominions, the Vistula, the Elbe, and the Dniester. The Rhine bounds Austria for about fourteen miles above Lake Constance.

The climate of Austria is on the whole very favorable; but from the extent and diversity of surface, it presents great varieties. In the warmest southern region, between 42° to 46° latitude, rice, olives, oranges, and lemons ripen in the better localities; and wine and maize are produced everywhere. In the middle temperate region from 46° to 49°, which has the greatest extent and diversity of surface, the vine and maize still thrive in perfection. In the northern region, beyond 49°, except in favored spots, neither the vine nor maize succeeds; but grain, fruit, flax, and hemp, thrive excellently. The mean temperature of the year is, at Trieste, 58° F.; at Vienna, 51°; at Lemberg, in Galicia, 44°.

The raw products of Austria are abundant and various; and in this respect it is one of the most favored countries in Europe. Its mineral wealth is not surpassed in any European country; it is only lately that Russia has exceeded it in the production of gold and silver. Mining has been a favorite pursuit in Austria for centuries, and has been encouraged and promoted by the government. Bohemia, Hungary, Styria, Carinthia, Salzburg, and Tyrol, take the first place in respect of mineral produce. Except platina, none of the useful metals is wanting. The mines are partly State property, and partly owned by private individuals. Gold is found chiefly in Hungary and Transylvania, and in smaller quantity in Salzburg and Tyrol. The same countries, along with Bohemia, yield silver. The discovery of quicksilver at Idria first brought this branch of mining industry into importance. This metal is now also found in Hungary, Transylvania, Styria, and Carinthia. Copper is found in many districts—tin, in Bohemia alone. Zinc is got chiefly in Cracow and Carinthia. The most productive lead mines are in Carinthia. Iron is found in almost every province of the monarchy, though Styria, Carinthia, and Carniola are chief seats. The production, though great, is not yet equal to the consumption. Antimony is confined to Hungary; arsenic is found in Salzburg and Bohemia; cobalt in Hungary, Styria, and Bohemia; sulphur in Galicia, Bohemia, Hungary, Venice, Salzburg, etc., though not enough to supply home consumption. Graphite is found abundantly in Bohemia, Moravia, Carinthia, etc.

The useful earths and building-stones are to be had in great profusion; all sorts of clay up to the finest porcelain earth (in Moravia, Bohemia, Hungary, Venice), and likewise marble, gypsum, chalk, etc. Of precious and semi-precious stones are the Hungarian opal, which passes in commerce as oriental, Bohemian garnets—the finest in Europe—cornelians, agates, beryl, amethyst, jasper, ruby, sapphire, topaz, etc.

The following table shows the principal metals and minerals produced in Austria in 1867, and their average value in florins at the place of production:

	WEIGHT.	VALUE IN FLORINS.
Gold (Austrian pound),	3,562	2,406,041
Silver "	81,378	3,655,643
Quicksilver (Austrian hundredweight),	5,944	723,958
Tin " "	591	33,812
Zinc " "	40,296	495,956
Copper " "	47,930	2,377,840
Lead and litharge " "	136,668	1,770,884
Iron, raw and cast " "	5,705,761	16,709,039
Graphite " "	279,355	271,123
Mineral coal " "	108,488,390	17,322,283

Austria is peculiarly rich in salt. Rocksalt exists in immense beds on both sides of the Carpathians, chiefly at Wieliczka and Bochnia, in Galicia, and in the country of Marmaros in Hungary, and in Transylvania. The annual produce of rock-salt is greatly above three million hundredweight. Salt is also made at State salt-works by evaporating the water of salt-springs. The chief works are those at Hallstadt, Ischl, Hallein, and Hall in Tryol. From two to three millions hundredweight are thus produced annually. A considerable quantity is also made from sea-water on the coast of the Adriatic. Of other salts, alum, sulphate of iron, and sulphate of copper are the chief. Austria has abundance of mineral springs, frequented for their salubrity; 1600 are enumerated, some of them of European reputation, as the sulphurous baths of Baden, in lower Austria, the saline waters of Karlsbad, Marienbad, and Ofen, etc.

The vegetable productions, as might be expected from the vast diversity in the soil and position of the different provinces, are extremely various. Although three-fourths of the surface is mountainous, more than five-sixths is productive, being used either for tillage, meadows, pasture, or forest. Grain of all kinds is cultivated most abundantly in Hungary and the districts south of it on the Danube, in Bohemia, Moravia, Silesia, and Galicia. Agriculture is not yet far advanced; the prevailing system is still what is called the three-field system, introduced into Germany by Charlemagne, in which a crop of winter wheat is followed by one of summer grain, and that by fallow.

In Hungary, the Magyar adheres to his primitive husbandry; the German and Slave are adopting improved methods. Rice is cultivated in the Banat, but not enough for the consumption. Potatoes are raised everywhere; and in elevated districts, are often the sole subsistence of the inhabitants. Horticulture is carried to great perfection; and the orchards of Bohemia, Austria proper, Tyrol, and many parts of Hungary, produce a profusion of fruit. Great quantities of cider are made in upper Austria and Carinthia, and of plum brandy in Slavonia. In Dalmatia, oranges and lemons are produced, but not sufficient for the requirements of the country; twice as much olive oil is imported as is raised in the monarchy.

In the production of wine, Austria is second only to France. With the exception of Galicia, Silesia, and upper Austria, the vine is cultivated in all the provinces; but Hungary stands first, yielding not only the finest quality of wine, but four-fifths the amount of the whole produce of the empire. The average produce of the whole empire is estimated at about 680 millions of gallons.

Of plants used in manufactures and commerce, the first place is held by flax and

hemp. Flax is cultivated almost universally; white hemp in Galicia, Moravia, Hungary, etc. Tobacco is raised in great quantities, especially in Hungary, which also is first in the cultivation of rapeseed. Bohemia raises hops of the first quality, which are partly exported, though other provinces import from abroad. The indigo plant has lately been successfully acclimatized in Dalmatia. More than a third of the productive surface is covered with wood (75,000 square miles), which, besides timber, yields a number of secondary products, as tar, potash, charcoal, bark, cork, etc.

As to animals, bears are found in the Carpathians, Alps, and Dalmatia; wolves, jackals, and lynxes in these same districts, and also in the Banat, Croatia, Slavonia, and the military frontiers. The marmot, otter, and beaver are also found in Dalmatia. Game has of late sensibly diminished. The wild goat lives in the highest, the chamois and white Alpine hare in the middle regions of the Alps and Carpathians. More productive than the chase are the fisheries of the Danube, Theiss, and numerous streams, lakes, and ponds. The chief sea-fishing is in Dalmatia. Leeches, procured chiefly in Hungary and Moravia, form an article of considerable trade. For foreign commerce, the most important branch of rural industry is the rearing of silk.

Austria produces about a quarter a million of silk cocoons annually. The silk trade is very extensive on the Tyrol—the yearly supply of cocoons in that country being about 32,000.

In 1851, the number of horses in the monarchy was stated at 3,229,884 (not including 75,000 belonging to the army); cattle, 10,410,484; sheep, 16,801,545; goats, 2,275,900; and swine, 7,401,300. Nearly three-fourths of the population are engaged in husbandry, so that Austria is decidedly an agricultural State, though its capabilities in this respect have by no means been fully developed.

The annual value of its manufactures—not including small trades—is estimated at 1000 to 1200 millions of florins, while that of its husbandry may reach 3000 millions. Bohemia takes the lead in this industry; then follow Austria proper, Moravia and Silesia, Hungary. Vienna is the chief seat of manufacture for articles of luxury; Moravia, Silesia, and Bohemia for linen, woolen, and glass wares; Styria and Carinthia for iron and steel wares. The chief manufactured articles of export are silken and woolen; the only others of consequence are linen, twist, glasswares, and cotton goods. The yearly value of manufactured iron is about fifty-four millions of florins. The glasswares of Bohemia are of special excellence. The hemp and flax industry is one of the oldest and still most important.

No branch of industry has risen more rapidly than that of cotton. The annual value of the silk industry is estimated at about sixty millions of florins. The manufacture of tobacco is a State monopoly, and produced a revenue in 1873 of 58,126,000 florins. The salt monopoly secured 18,720,000 florins.

The imports for the year 1874 were 565,600,000 florins; the exports were 452,200,000 florins. This is exclusive of Dalmatia—not within the imperial line of customs. The figures for Dalmatia were, during the same year: 9,600,000 florins imports, and 6,600,000 florins exports.

The merchant navy, at the beginning of 1875, comprised 7203 vessels, with a tonnage of 332,005, and an equipment of 27,381 seamen. Of great importance for the commerce of the empire is the Austrian Lloyds. This company owned, on the 1st of January, 1874, a fleet of seventy-six steamers, of 15,800 horse-power.

Since the year 1867 Austria has been a twofold empire, consisting of a German or "Cisleithan" monarchy—Austria proper; and a Magyar or Transleithan kingdom —Hungary. Each of the two countries has its own laws, parliament, ministers, and government; and the formal tie between them is a body known as the Delegations. These form a parliament of 120 members; one-half is chosen by the legislature of Austria, and the other by that of Hungary, the upper house of each returning twenty, the lower house forty delegates. The delegations have jurisdiction over all

matters affecting the common interests of the two countries, especially foreign affairs, war, and finance. The acts of the delegations require to be confirmed by the representative assemblies of their respective countries.

The administration of Austria proper is divided among nine ministries—Foreign Affairs, Police, Public Education, Agriculture and Public Works, Finance, Interior, War and Navy, Commerce, and Justice. The Reichsrath consists of an upper and a lower house. The upper house is constituted by princes, nobles, archbishops, bishops, and life members nominated by the emperor. To give validity to bills passed by the Reichsrath, the consent of both chambers is required, as well as the sanction of the emperor.

The executive of Hungary is carried on in the name of the king by a responsible ministry.

The following figures are extracted from the budget for 1875:

EXPENDITURES.

Austria,	319,916,323 florins.
Hungary,	218,558,301 "
General,	116,364,502 "
	654,839,126 "

RECEIPTS.

Austria,	283,298,975 florins.
Hungary,	209,633,909 "
From duties and other sources,	123,315,125 "
	616,248,009 "

The public debt of Austria, on the 1st of January, 1875, was 2,649,484,475 florins; that of Hungary, January 1st, 1873, was 488,717,380 florins.

According to official returns, Austria possessed, in 1875, a standing army numbering 284,435 men on the peace footing, and 785,649 on the war footing.

The naval forces consisted of seventy-one vessels, of a tonnage of 115,380, carrying 308 heavy and 87 light guns. Of this fleet, 47 vessels were steamers, of 100,260 tons burthen.

The length of railways, at the close of 1875, was

In Austria,	9,823 kilometres.
" Hungary,	6,415 "
Total,	16,238 "

The work of the post office in Austria-Hungary for 1874 was as follows:

Letters,	253,909,000
Postal cards,	28,741,000
Parcels,	31,959,000
Newspapers,	82,085,000
Number of post offices,	6,296

The statistics of telegraphs for the year 1874 are as follows:

Length of lines (Austria-Hungary),	45,441 kilometres.
" " wires " "	129,171 "
Number of offices,	2,923 "
" of dispatches,	5,797,492 "

Education, since 1849, is under the care of a Minister of Public Worship and Instruction. In the major part of German Austria the law enforces the compulsory attendance in the "Volksschulen," or National Schools, of all children between the ages of six and twelve, and parents are liable to punishment for neglect. It is rarely, however, that cases occur in which penalties for non-attendance at school have to be enforced. The cost of public education mainly falls on the communes, but of late

years the State has come forward to assist in the establishment of schools for primary education.

There are seven universities in the empire. Four of these, the high schools at Vienna, Prague, Graz, and Innsbruck, are called German universities, and were attended as follows, in 1872:

	PROFESSORS AND TEACHERS.	STUDENTS.
Vienna,	200	3881
Prague,	97	1709
Graz,	70	926
Innsbruck,	58	612

Of the other universities, Pesth, the high school of Hungary, had 2500 students at the end of 1873, and Cracow and Lemberg, the high schools for Galicia and the other Slavonian provinces, had, at the same date, together, 1900 students.

Commission from AUSTRIA to the International Exhibition:

RUDOLF ISBARY, Vice-President of the Chamber of Commerce, President.
FRANZ RITTER VON LIEBIG, Member of the Chamber of Commerce, First Vice-President.
MICHAEL MATSCHEKO, Manufacturer, Second Vice-President.
DR. F. MIGERVA, Counsellor to the I. R. Austrian Ministry of Commerce, Commissioner General, and Resident Commissioner.
EUGENE FELIX, President of the Society of Arts.
EDWARD KANITZ, Member of the Chamber of Commerce.
KARL VON OBERLEITNER, Member of the Chamber of Commerce.
OTTO VON BAUER, Member of the Chamber of Commerce.
ERNST VON PONTZEN, Engineer.
DR. EMIL HORNIG, Counsellor.
THEO. A. HAVEMEYER, Austro-Hungarian Consul-General.

SWITZERLAND.

SWITZERLAND is an inland country of Europe, situated between 45° 48′ and 47° 49′ north latitude, and 5° 55′ and 10° 30′ east longitude. Its greatest length from east to west is 180 miles, and its greatest width from north to south, 130 miles.

The following table gives the area and population of each of the 22 cantons, according to the census returns of 1870:

	ENGLISH SQUARE MILES.	POPULATION.
Graubünden,	2,968	91,782
Bern,	2,561.5	506,465
Wallis (Valais),	1,661.6	96,887
Vaud (Waadt),	1,181.9	231,700
Ticino (Tessin),	1,034.7	119,619
St. Gallen,	747.7	191,015
Zurich,	685.3	284,786
Luzern,	587.4	132,338
Fribourg (Freeburg),	563.9	110,832
Aargau,	502.4	198,873
Uri,	420.8	16,107
Schwyz,	338.3	47,705
Neuchatel (Neuenburg),	280.2	97,284
Glarus,	279.8	35,150
Thurgau,	268.3	93,300
Unterwalden,	262.8	26,116
Solothurn,	254.6	74,713
Basle,	184.6	101,887
Appenzell,	152.8	60,635
Schaffhausen,	119.7	37,721
Genève (Genf),	91.3	93,239
Zug,	85.4	20,993
Total,	15,233.0	2,669,147

Switzerland is the most mountainous country of Europe. Its principal chains are the Alps and the Jura. The former run from east to west along its southern or Italian frontier. Their ramifications fill more than one-half the country, and terminate along a line which may be traced from Vevey, on the lake of Geneva, to Mount Moleson and Mount Napf, across Lake Zug, to the southern shores of the lakes of Zurich and Wallenstadt, and Sargans on the Rhine. The mean elevation of the highest chain is from 8000 to 9000 feet. The Jura run northeast from the western corner of Switzerland. They consist of a series of parallel ridges inclosing long and narrow valleys, and their mean elevation does not exceed 4000 feet. In the angle formed between them and the Alps lies the plain of Switzerland, a table-land 100 miles in length, and from 20 to 30 miles in width, with a mean elevation of about 1400 feet above the sea. It is not absolutely level, but covered with elevations which seem very unimportant when contrasted with the huge masses of the Alps and Jura. The communication between the plain of Switzerland and the German valleys of the Danube and Rhine is not continuous. The plain terminates in the east in a third hilly tract, the Thur hill country, which lies between the lakes of Zurich and Constance, and, to some extent, forms a barrier between the plain of Switzerland and Germany. The Jura, the plain, and the hill country, are the three great divisions of northern Switzerland. The divisions in the Alpine region are more strongly marked

in nature. They isolate and inclose (1) the valleys drained by the Rhone which connect Switzerland with southern France; (2) Ticino, drained by streams which descend to the Po, and bring this section into communication with Italy; (3) the Grisons, the most sequestered valleys of Switzerland, drained by the tributaries of the Rhine and Danube, and shut out by mountains from the lower basins of these rivers; (4) Bernese Oberland, which slopes towards the western extremity of the Swiss plain; (5) the district of the Forest Cantons, Schwyz, Uri, and Unterwalden, surrounding the Lake of Lucerne.

In Switzerland the climate chiefly varies with the elevation above the sea level. At a height exceeding 9500 feet the mountains are covered with perpetual snow, which descends along the glaciers to a much lower level, and thus covers the elevated part of the country with a vast sea of ice. Below the level of perpetual snow the surface of Switzerland has been divided into a series of belts, characterized by different climates and productions. The highest of these, lying between the snow and the level of 6900 feet, has been called the Upper Alpine region. In it the glaciers fill the valleys, but plants clothe the scanty soil of the ridges. The second or Lower Alpine belt descends to 4800 feet, and is a country of pastures in which shrubs, but no trees, are seen. In the third belt, which descends to 4350 feet, meadows still abound, but forests of firs and maples, in many parts, replace them. The fourth belt sinks to 3000 feet. Here forests still abound, the beech being the prevailing tree; the meadows are excellent, and rye and barley are successfully cultivated. The fifth belt descends to 1800 feet. In it the oak and walnut are the characteristic forest trees. Spelt and the best wheat are cultivated. The last belt sinks to 750 feet. In it the chestnut is the characteristic tree; the mulberry and vine are extensively cultivated, and wheat is the grain chiefly grown. This belt includes the greater part of the Swiss plain, and sinks to its lowest level in the valley of the Rhine, between Constance and Basle, and the banks of Lake Zurich and Lago Maggiore. In the last district the vegetation is that of northern Italy. The most populous part of Switzerland lies between 1250 and 2150 feet. The temperature of this region is fairly represented by that of Zurich, which averages, for the year, 47.95°.

The German language is spoken by the majority of the inhabitants in sixteen cantons, the French in four, and the Italian in two. It is reported in the census returns of 1870 that 384,561 families speak German, 134,183 French, and 30,293 Italian. According to the same returns there were but five towns in Switzerland with more than 20,000 inhabitants, namely, Geneva, seat of the watch and jewelry industry, with 46,783; Basle, centre of the silk industry, with 44,834; Bern, political capital, with 36,001; Lausanne, with 26,520; and Zurich, with 21,199 inhabitants. The soil is pretty equally divided among the population, it being estimated that four-fifths of the inhabitants are land owners. Of every 100 square miles of land 20 are pasture, 17 forest, 11 arable, 20 meadow, 1 vineyard, and 30 uncultivated, or occupied by lakes, rivers, and mountains.

According to the census of 1870 there are 1,095,447 individuals supported, either wholly or in part, by agriculture. At the same date, the manufactories employed 216,468 persons, the handicrafts 241,425. In the canton of Basle the manufacture of silk ribbons employs 6000 persons, with a total annual production valued at $7,000,000. In the canton of Zurich silk stuffs, to the value of about $8,000,000, are made by 12,000 operatives. The manufacture of watches and jewelry in the cantons of Neuchatel, Geneva, Vaud, Bern, and Solothurn, employ 36,000 workmen, who produce annually 500,000 watches—three-sevenths gold, four-sevenths silver—valued at $9,000,000. In the cantons of St. Gall and Appenzell, 6000 workers make $2,000,000 worth of embroidery annually. The printing and dyeing factories of Glarus turn out goods to the value of $3,000,000, per annum. The manufacture of cotton goods occupies upwards of 1,000,000 spindles, 4000 looms, and 20,000 operatives, besides 38,000 hand-loom weavers.

The Federal custom house returns classify all imports and exports under three chief headings, namely, live stock, *ad valorem* goods, and goods taxed per quintal. No returns are published of the value of imports or exports: only the quantities are given. The following table shows the imports and exports during the year 1871:

IMPORTS.

Live stock,	256,851 head.
Agricultural instruments, carts, and railway carriages for travelers and merchandise, *ad valorem*,	1,043,991 francs.
Goods taxed per quintal, including loads reduced to quintals,	25,450,359 quintals.

EXPORTS.

Live stock,	127,490 head.
Wood and coal, *ad valorem*,	5,351,941 francs.
Goods, per load and quintal,	4,086,646 quintals.

The present constitution vests the supreme legislative and executive authority in a parliament of two chambers, a Standerath, or State Council, and a Nationalrath, or National Council. The first is composed of 44 members, chosen by the 22 cantons—2 for each canton. The Nationalrath consists of 135 representatives, chosen by popular vote, at the rate of one deputy for every 20,000 souls. A general election for representatives takes place every three years. Both chambers united are called the Bundesversammlung, or Federal Assembly, and as such represent the supreme government of the republic. The chief executive authority is deputed to a Bundesrath, or Federal Council, consisting of seven members elected for three years by the Federal Assembly. The president and vice-president of the Federal Council are the first magistrates of the republic. Both are elected by the Federal Assembly for the term of one year, and are not re-eligible until after the expiration of another year. Independent of the Federal Assembly, though issuing from the same, is the Bundes-Gericht, or Federal Tribunal, consisting of eleven members, elected for three years. The Federal Tribunal decides, in the last instance, on all matters in dispute between the various cantons, or between the cantons and the Federal government, and acts in general as a high court of appeal. Each of the Swiss cantons and demi-cantons has its local government, different in organization in most instances, but all based on the absolute sovereignty of the people.

In the budget estimates for the year 1875 the total revenue is set down at 39,516,000 francs,* and total expenditure at 39,266,000 francs. The public debt of the republic amounted, at the commencement of 1875, to 30,635,552 francs, as a set-off against which there was a so-called Federal fortune, or property belonging to the State, valued at 31,783,303 francs.

The fundamental laws of the republic forbid the maintenance of a standing army within the limits of the confederation. The troops are divided into three classes: 1, the Bundes-Auszug, or Federal army, consisting of all men able to bear arms from the age of 20 to 30; 2, the army of reserve, consisting of all men who have served in the first class, from the age of 31 to 40; 3, the Landwehr, or militia, comprising all men from the 41st to the completed 44th year. The strength of the armed forces of Switzerland, at the end of 1874, was as follows:

Staff,	841
Bundes-auszug,	84,369
Reserve,	50,069
Landwehr,	65,981
Total,	201,260

* One franc = 19.3 cts. gold.

From official returns it appears that the railways open for public traffic in Switzerland had, at the end of 1874, a total length of 1024 English miles.

The post office of Switzerland forwarded, during the year 1874, 63,252,884 letters; 19,925,200 packets, and 45,651,344 newspapers.

At the end of September, 1875, there were 3736 miles of telegraph lines and 9538 miles of wires. The number of messages sent, in the year 1874, was 2,625,104; number of offices, 815. The entire telegraph system belongs to the State.

In no country is elementary instruction more widely diffused. Parents are compelled to send their children to school from five to twelve, but not above that age. There are universities on the German model at Basle, Bern, and Zurich, and academies on the French plan at Geneva and Lausanne. The number of clubs for scientific, literary, musical, and social purposes, is remarkable. There are few pursuits to which any class of men can devote themselves which are not represented in Switzerland by societies.

Commission from SWITZERLAND to the International Exhibition;

DR. SCHENK, Member of Federal Council, Chief of the Department of Railways and Commerce, President.
JOHN HITZ, Consul-General of Switzerland.
R. KORADI, Consul, Resident-Commissioner.
W. ITSCHNER, Vice-Consul.
DR. ADOLPH HIRSCH, Director of the Observatory.
MR. SAUR-USTERI, Engineer.
MR. SALVISBERG. Architect.
DR. EMILE SCHUMACHER.
COLONEL SIEGFRIED, Chief of Bureau of the General Staff.
MR. STEINMANN BUCHER, Secretary of the Department of Commerce.
DR. FR. DE TSCHUDI, Councillor of State.
DR. WILLI, Secretary of the Federal Department of Commerce, Secretary.

Resident Commission in Switzerland.

COLONEL H. RIETER, Commissioner-General.

Resident Commissioners in Philadelphia.

MR. EDWARD GUYER, Secretary-General.
MR. JOHN E. ICELY, Engineer.
MR. JOSEPH BEELER, Secretary.

BELGIUM.

BELGIUM lies between latitude 49° 27′ and 51° 30′ north, and between longitude 2° 33′ and 6° 5′ east. It is bounded on the north by Holland; on the east by Dutch Limbourg, Luxembourg, and Rhenish Prussia; on the south and southwest by France; and on the northwest by the North Sea. Its greatest length, from northwest to southeast, is 173 English miles; and its greatest breadth, from north to south, 112 English miles. The whole area is 11,313 square miles. The following table gives a list of the provinces in Belgium, with the area, population, and chief town of each:

PROVINCES.	AREA IN SQ. MILES.	POPULATION (1870).	CHIEF CITIES.
Antwerp,	1,094	492,482	Antwerp.
West Flanders,	1,243	668,976	Bruges.
East Flanders,	1,154	837,726	Ghent.
Hainault,	1,430	896,285	Mons.
Liege,	1,111	592,177	Liege.
Brabant,	1,260	879,814	Brussels.
Limbourg,	929	200,336	Hasselt.
Luxembourg,	1,695	205,784	Arlon.
Namur,	1,397	313,525	Namur.
Total,	11,313	5,087,105	

Belgium is the most densely populated country in Europe, the population being about 404 to the square mile; and in the particular provinces of East Flanders, 675; Brabant, 594; Hainault, 537; and West Flanders, 502, respectively, to the square mile. The rural population bears to that of the towns a proportion of about 3 to 1. About 58 per cent. of the inhabitants are Flemish, the rest Walloon and French, with 39,000 Germans in Luxembourg. Belgium is, on the whole, a level and even low-lying country; diversified, however, by hilly districts. In the southeast, a western branch of the Ardennes highlands makes its appearance, separating the basin of the Maas from that of the Moselle, but attains only the moderate elevation of 2000 feet. In Flanders the land becomes so low that in parts where the natural protection afforded by the downs is deficient, dikes, etc., have been raised to check the encroachments of the sea. In the northeast part of Antwerp, a naturally unfertile district named the Campine, and composed of marshes and barren heaths, extends in a line parallel with the coast. The once impassable morasses of the *Morini* and the *Menapii*, which stayed the progress of Cæsar's legions, are now drained, and converted into fertile fields, surrounded by dense plantations, which make the land at a distance look like a vast green forest—though, when more closely regarded, we see only numerous dwellings interspersed among fields, canals, and meadows.

The abundant water-system of Belgium is chiefly supplied by the rivers Scheldt and Maas, both of which rise in France, and have their embouchures in Holland. At Antwerp, the Scheldt, which, like the Maas, is navigable all through Belgium, is 32 feet deep, and about 480 yards wide. Its tributaries are the Lys, Dender, and Rupel. The Maas, or Meuse, receives in its course the waters of the Sambre, the Ourthe, and the Roer. These natural hydrographical advantages are increased by a system of canals which unite Brussels and Louvain with the Rupel, Brussels with Charleroi, Mons with Conde, Ostend with Bruges and Ghent, and this last place with Terneuse. The climate of Belgium, in the plains near the sea, is cool, humid, and somewhat unhealthy; but in the higher southeast districts, hot summers alternate with very cold winters. April and November are always rainy months. The geological formations

of Belgium are closely associated with France and Britain. The greater portion of the country is covered with tertiary deposits. A line drawn across the course of the Scheldt, by Mechlin, along the Demer and Maas, will have on its northern and northwestern aspect a tract of tertiary deposits, bounded northwards by the sea. In these tertiary strata the different geological periods are fully represented; but only the second, containing the Pleiocene deposits, is rich in fossils. The secondary deposits occupy an extensive tract in the centre of Belgium, between the Scheldt and the Demer. The most important district, economically, is the southwestern, consisting of palæozoic rocks—Silurian, Devonian, and Carboniferous. These beds have a very complicated structure, from the numerous and extensive flexures and folds they have undergone, and these are often accompanied with great upward shifts, by which beds of many different ages are brought to the same level. Belgium is rich in minerals, which, next to its abundant agriculture, constitute the chief source of its national prosperity. The four provinces in which they are found are Hainault, Namur, Liege, and Luxembourg. They include lead, copper, zinc, calamine, alum, peat, marble, limestone, slate, iron, and coal. Lead is wrought, but only to a small extent, in Liege; copper in Hainault and Liege; manganese in Liege and Namur; black marble at Dinant; slates at Herbemont; and calamine principally at Liege. But these products are insignificant compared to the superabundance of coal—from anthracite to the richest gas coal—and iron.

In the year 1871, the total coal production of Belgium amounted to 13,733,176 tons, of a total value of 153,803,000 francs. Number of hands employed in the coal mines of Belgium, 94,186. The average daily pay of the workmen, in 1871, was 2¾ francs per day; average cost of production, 9½ francs per ton of coal. The Ardennes districts yield a large supply of wood; while the level provinces raise all kinds of grain—wheat, rye, barley, oats, etc., leguminous plants, hemp, flax, colza, tobacco, hops, dye-plants, and chicory. Belgium contains upwards of 7,000,000 acres, of which one-half is arable, rather more than one-fifth in meadow and pasture, the same in woods and forests, and not above 500,000 acres lying waste. Some hundreds of acres are devoted to vineyards, but the wine produced is of an inferior quality. The forests of Ardennes abound in game and other wild animals. Good pasturage is found on the slopes and in the valleys of the hilly districts, and in the rich meadows of the low provinces. Gardening occupies not less than 130,000 acres; indeed, it has been said that the agriculture of Belgium is just gardening on a large scale, so carefully and laboriously is every inch of soil cultivated. The spade is still the principal instrument used. In the Campine, the care of bees is very productive, and the cultivation of the silkworm is encouraged. There are valuable fisheries on the coast, which, in 1871, employed 263 boats, with a tonnage of 8963. Belgium is famous for its horses, and in one year contained 294,537 of these animals, 1,203,891 horned cattle, and 662,508 sheep.

Wool is the object of an immense industry, the woolen manufactures of Verviers and its environs alone employing a population of 50,000 operatives. Flannels, serges, camlets, carpets, flax fabrics, silks, velvets, fine laces, ribbons, hosiery, hats, paper, etc., are extensively and profitably manufactured. The working of metals, as iron, copper, and tin, is very important; the manufacture of cannon, firearms, and locomotive engines being an especial feature of the metallurgical industry of Belgium.

The foreign trade of Belgium is officially divided into "general commerce," including the sum total of all international mercantile intercourse, and "special commerce," comprising such imports as are consumed within and such exports as have been produced in the country. The following table gives the value of both the general and special exports for the year 1873:

General imports,	2,424,800,000	francs.
" exports,	2,164,900,000	"
Special imports,	1,422,700,000	"
" exports,	1,158,600,000	"

The statistics of the Belgian merchant navy for 1873, are—

	NO.	TONNAGE.
Sailing vessels,	41	16,434
Steam "	28	30,005
Total,	69	46,439

Belgium is a constitutional, representative, and hereditary monarchy. The legislative power is vested in the King, the Chamber of Representatives, and the Senate. The Chamber of Representatives is composed of deputies chosen directly by all citizens paying a small amount of direct taxes. The number of deputies is fixed according to the population, and cannot exceed one for every 40,000 inhabitants. The Senate is composed of exactly one-half the number of members composing the other chamber, and are elected by the same citizens who appoint the deputies. The public expenditures of Belgium, for 1875, were 238,281,441 francs; receipts during the same year, 243,032,600 francs. The total public debt, in 1875, was 1,127,040,009 francs. The standing army is formed by conscription, to which every able-bodied man, who has completed his nineteenth year, is liable. Substitution is permitted. The actual number of soldiers under arms, on the 1st of January, 1875, was 103,893.

In Belgium the State is a great railway proprietor, and the State railway is one of the largest sources of national revenue. As each conceded railway lapses gratuitously to the State in 90 years from the period of its construction, the entire system will in time become national property. There were, at the end of 1875, 1953 kilometres of railways owned by the State, and 1479 worked by companies; in all 3432 kilometres. (The kilometre = 1093 yards.)

The work of the post office for 1874, was—

Number of offices,	479
Private letters,	58,036,628
Official "	6,035,861
Newspapers,	58,825,598
Packets (printed matter, etc.),	30,094,027

There were, on the 1st of January, 1875, telegraph lines of a length of 4909 kilometres; length of telegraph wires, 20,512 kilometres; telegraph stations, 574.

Elementary education is not yet generally diffused among the people. The schools are supported by the communes, the provinces, and the State combined. Education is not compulsory. In the budget for the year 1874, the sum voted by the Chamber of Representatives for public education amounted to 9,701,628 francs.

Commission from BELGIUM to the International Exhibition:

HIS ROYAL HIGHNESS, THE COMTE DE FLANDRE, Honorary President.

BARON GUSTAVE DE WOELMONT, Senator, President.

ALEXANDER ROBERT, Historical Painter, Member of the Belgium Academy of Fine Arts, Letters, and Sciences, Vice-President.

CH. DE SMET-DE SMET, Manufacturer, President of the Industrial and Commercial Society, Vice-President.

J. CLERFEYT, Chief of Bureau, Ministry of the Interior, Secretary of the Upper Consul of Industry and Commerce, late Secretary of the Belgium Commission and Juries of the International Exhibition of Paris, London, and Vienna, Secretary.

ALFRED ANCION, Manufacturer of Arms.

JEAN BECO, Mining Engineer.

A. J. BELPAIRE, Inspector-General of Railways and Telegraphs.

L. DE CURTE, Architect, Member of the Royal Commission of Monuments and Council for the Improvement of the Arts of Design.

FELIX DUHAYON, Lace Manufacturer, Judge of the Tribunal of Commerce.

E. Duisberg, Director of the Paper Manufactories of Messrs. Godin & Co., at Huy, Member of the Chamber of Commerce.
Jos. Fayn, Mining Engineer, Consul of the Netherlands.
P. F. Ghys-Bruneel, Lace Manufacturer.
Jules Havenith, Shipowner, Consul of Austria-Hungary.
J. Kindt, Inspector-General of Industry, Minister of the Interior.
Eugene Meeus, Manufacturer, Member of the Chamber of Representatives.
Alph. Morel, Director of the Glass Works, Lodelinsart.
Henri Morel, Flax Manufacturer.
Remy Paquot, Director of the Company of Bleyburg-es-Montzen.
Edm. Parmentier, Manufacturer.
Ferdinand Pauwels, Historical Painter.
Aug. Ronnberg, Director-General of Agriculture and Manufactures, Ministry of the Interior.
E. Sadoine, Director-General of the Company "John Cockerill."
Jules Sauveur, Director-General of Public Instruction, Ministry of the Interior.
E. E. A. Scharr, Chief Engineer, Director of the Arsenal and Railways of the State.
Alfred Simonis, Cloth Manufacturer, Member of the Chamber of Representatives.

Resident Commissioners in Philadelphia.

Count d'Oultremont, Director-General.
Mr. J. Beco, Delegate of the Belgian Government.
Mr. J. Van Bree, Chief of Fine Art Department.
Mr. J. Gody, State Architect, Chief of the Commissioner's Office.
Mr. Julian Deby.

NETHERLANDS.

THE Kingdom of the Netherlands lies between 50° 43′ and 53° 36′ north latitude and 3° 22′ and 7° 16′ east longitude, is bounded on the north by the North Sea, east by Hanover and the western part of Prussia, south by Belgium, west by the North Sea. Its greatest length, from north to south, is 195 English miles; its greatest breadth from the west, on the North Sea to the extremity of Overyssel, on the east, 110 English miles. It contains 12,637 square miles, including the grand duchy of Luxembourg (which, although possessed of a separate administration, is connected with the kingdom in the person of the sovereign). The entire population, in 1872, was 3,835,111.

The following table gives the population (1872) and area of the provinces, including the reclaimed Haarlem Lake:

	AREA IN SQUARE MILES.	POPULATION.
North Brabant,	1,985	435,262
Gelderland,	1,972	436,029
South Holland,	1,176	700,499
North Holland,	966	591,338
Zeeland,	642	181,532
Utrecht,	531	175,037
Friesland,	1,267	300,257
Overyssel,	1,308	256,681
Groningen,	907	228,883
Drenthe,	1,029	106,713
Limburg,	854	225,352
	12,637	3,637,583
Grand Duchy of Luxembourg,	990	197,528
Total,	13,627	3,835,111

The land is generally low, much of it being under the level of the sea, rivers, and canals, especially in North and South Holland, Zeeland, the southern part of Gelderland, and Friesland. Along the west coast the low lands are protected from the sea by a line of sand-hills, or dunes, and where that natural defence is wanting strong dykes have been constructed to keep back the waters, and are maintained at great expense. The greatest of these dykes are those of the Helder and of West Kapelle, on the east coast of Walcheren. Engineers, called the officers of the Waterstaat, take special charge of the dykes and national hydraulic works. A hilly district stretches from Prussia through Drenthe, Overyssel, the Veluwe, or Arnhem district of Gelderland, the eastern part of Utrecht, into the Betuwe or country between the Maas and the Waal. This tract has many pretty spots, is of a light sandy soil, well watered, and when not cultivated, is covered with heath or oak-coppice. The greater portion of the north is very fertile, the low lands and drained lakes, called Polders, being adapted for pasturing cattle, and the light soils for cereals and fruits; but in some districts there are sandy heath-clad plains, extensive peat-lands, and undrained morasses, which industry is rapidly bringing under cultivation.

The islands may be divided into two groups, of which the southern, formed by the mouths of the Schelde and Maas, contains Walcheren, South and North Beveland, Schouwen, Duiveland, Tholen, St. Philipsland, Goeree, Voorne, Putten, Beyerland, Ysselmonde Rozenburg, and the island of Dordrecht. The northern group

contains the islands at the entrance of the Zuyder Zee and along the coast of Groningen and Friesland, as Wieringen, Texel, Vlieland, Terschelling, Ameland, Schiermonnikoog, and Rottum. In the Zuyder Zee are Marken, Urk, and Schokland. The chief rivers are the Rhine, Maas, and Scheldt. Important branches of these are the Waal, Lek, Yssel, Roer, etc.

Water ways are more numerous than in any other European country, the immense tracts of meadow-land and the fertile polders being girdled by large canals, and cut in all directions by smaller ones for drainage and communication. Those of most importance to the national trade are, the North Holland canal, constructed 1819–1825, to connect the port of Amsterdam with the North Sea; the Voorne canal, from the north side of Voorne to Hellevoetsluis, which shortens the outlet from Rotterdam; the South Willemsvaart, through North Brabant, Dutch and Belgian Limburg, from Hertogenbosch to Maastricht, being 71½ English miles in length, and having 24 locks. Besides these, there are numerous important canals, connecting rivers, and cutting the kingdom into a network of water-courses. To improve the entrances to the Maas, the Hock, of Holland, has lately been cut. The new canal through the Y will be nowhere less than 80 yards broad, with sluices nearly 400 feet in length, ar 1 a depth of nearly 23 feet. It will reduce the distance from Amsterdam to the sea to about 15 miles, and gives a safe way for large ships.

The climate of the Netherlands is variable, chilly colds often closely succeeding high temperatures, inducing various forms of fever and ague, and requiring peculiar care as to clothing, etc. In summer, the thermometer sometimes rises above 80°, and even to 90° F. in the shade, and a winter of great severity usually occurs every fifth year, when carriages and heavily laden wagons cross the rivers and the Y on the ice, and thousands enjoy the national pastime of skating.

The farms are generally small and well cultivated. The leading agricultural products of Zeeland are wheat and madder; in South Holland, madder, hemp, butter, and cheese; in North Holland, butter and cheese are extensively made, and cattle, sheep, and pigs reared and exported. The horses of Friesland, Zeeland, and Gelderland are of first-rate quality. The exportation of butter from Holland and Friesland, and of Edam, Leyden, Gonda, and Frisian cheese, is quite large. Fruit is abundant, and in several provinces, as Gelderland, Utrecht, and Drenthe, much attention is paid to bees. In Haarlem and neighborhood, tulips and hyacinths are much cultivated, realizing a large annual amount. Wild ducks, snipes, plovers, and hares are plentiful; and there are also conies, partridges, pheasants, and deer—game forming an article of export.

The Netherlands are of recent formation, and consist of an alluvial deposit, chiefly of a deep, rich clayey soil, superimposed on banks of sand, marine shells, and beds of peat and clay. It appears that at some distant period there has been a depression of the land below its former level, enabling the sea to burst through its sand-banks, submerge the land, and form new deposits. The higher districts are composed of sand-drift mingled with fertile earths, and resting on a bed of clay. Coal is worked in Limburg; and a soft sandstone, which becomes fit for building purposes after having been some time exposed to the atmosphere, is quarried in the southern part of that province, which has also pipe and other clays. Valuable clays for pottery, tile, and brick making, abound in the various provinces.

The chief manufactures are linen, woolen, cotton, and silk fabrics; paper, leather, glass, etc. Leyden and Tilburg are famed for woolen blankets, wool-dyed pilot, fine cloths, and friezes; Hertogenbosch for linens and rich damasks; calicoes, shirtings, drills, tablecloths, striped dimities are made at Almelo, Amersfort, and in the leading towns of Overyssel. Good imitation Smyrna and Scotch carpets, and carpets of hair and wool, are manufactured at Deventer, Delft, Arnhem, Hilversum, Utrecht, and Breda; Turkey-red yarns, dyed silks, and silk stuffs at Roermond, Utrecht, Haarlem, etc.; leather, glass, firearms, at Maastricht and Delft; iron-founding, rolling and hammering of lead and copper, cannon-founding are carried

on at the Hague, etc.; and powder-mills at Muiden; Oudenkerk, Middelburg, Hertogenbosch, Amsterdam, Nymegen, etc., have important breweries. Waalwyk, Heusden, and surrounding districts, manufacture boots and shoes, of which Heusden sends to North and South Holland 1,000,000 pairs annually. Gin is distilled at Schiedam, Delft, Rotterdam, and Weesp. Amsterdam has the largest diamond-cutting trade in the world, 10,000 persons depending on that branch of industry. Sugar refining is largely carried on at Amsterdam, Rotterdam, and Dordrecht, from all of which sugar is exported to Russia, the Levant, and countries of Europe. Paper is chiefly made in Holland and Gelderland. The leading letter-type founders are at Amsterdam and Haarlem. Manufactures of every kind are being rapidly increased in number, and adding to the material prosperity of the Netherlands. The chief motive power is the windmill, which forms a never-failing element in the scenery; but of late years steam is becoming more general.

Fishing, not only in the inland waters, the coasts and bays of the North Sea, but also on the coast of Scotland, is vigorously pursued. In 1872 the total value of the herrings taken in the North Sea was about $450,000, 108 vessels having been employed; on the Netherland coasts, to the value of about $250,000, and in the Zuyder Zee, additional, 18,052,000 herrings were taken. The anchovy take, almost exclusively in the Zuyder Zee, amounted to 9000 anker, valued at about $90,000. There are productive oyster beds, besides extensive fishings of cod, ling, turbot, flounders, soles, shrimps, haddock, etc.; and from the rivers, salmon, eels, perch, etc.

The foreign commerce of the Netherlands, during the year 1873, was as follows:

	IMPORTS. IN GUILDERS.	EXPORTS. IN GUILDERS.*
Europe,	533,390,000	459,799,000
America,	39,838,000	8,125,000
Asia,	23,207,000	435,000
Africa,	2,747,000	890,000
Other countries,	298,000	1,000
	599,480,000	469,250,000
COLONIAL POSSESSIONS.		
Java,	82,485,000	45,083,000
West Indies,	119,000	302,000
	682,084,000	514,635,000

The Guinea coast is not included in the above, the statistics for 1873 not being at command. During 1872, the imports 26,000, the exports 137,000 guilders. At the end of 1874 the merchant navy numbered 1827 vessels of 511,982 tons.

The constitution vests the whole legislative authority in a parliament composed of two chambers, called the States-General. The Upper House, or First Chamber, consists of 39 members, elected by the provincial states, from among the most highly assessed inhabitants of the various counties. The Second Chamber of the States-General, elected by ballot, at the rate of one deputy to every 45,000 souls, numbered 80 members in 1875. All citizens, natives of the Netherlands, not deprived of civil rights, and paying assessed taxes to the amount of not less than 20 guilders, are voters. Clergymen, judges of the High Court of Justice, and governors of provinces, are debarred from being elected. Every two years one-half the members of the Second Chamber, and every three years one-third of the members of the Upper House, retire by rotation. The Second Chamber has the initiative of new laws, and the functions of the Upper House are restricted to either approving or rejecting them, without the right of inserting amendments. The king has full veto power, but it is rarely, if ever, exercised. The executive authority is, under the

* The guilder equals 40 cents gold.

sovereign, exercised by a responsible council of ministers. The budget estimates for the year 1874, were as follows: Total revenue, 93,742,144 guilders; total expenditure, 93,742,144; estimated deficit, 6,244,740 guilders. The financial estitmates are always framed with great moderation, generally showing a deficit, which, in the final account, becomes a surplus. There is a separate budget for the great colonial possessions in the East Indies. The Netherlands East India estimates, for 1874, are thus summarized:

	GUILDERS.
Revenue from receipts in the Netherlands,	48,958,967
" " " in India,	74,639,232
	123,598,199
Expenditure in the Netherlands,	17,956,922
" " India,	95,096,698
	113,053,620
Contribution in aid of the Home Government, for 1874,	10,544,579
	123,598,199

At the commencement of the year 1874, the national debt was represented by a capital of 927,320,076 guilders. The regular army stationed in the Netherlands comprised, on the 1st of July, 1875, 1935 officers and 59,491 men. The colonial army, on the 1st of January, 1875, comprised 27,475 men, 12,310 of whom were Europeans, and 15,165 natives. The navy, on the 1st of July, 1875, consisted of 88 steamers, carrying 474 guns, and 27 sailing vessels, with 195 guns. At the beginning of the year 1875, there were 1668 kilometres of railway opened for traffic. Of these, 853 belonged to private companies and 815 to the State. The number of post offices at the commencement of 1875 was 1241; the number of letters carried during the year, 44,396,330. The length of telegraph lines, January 1st, 1875, was 3431 kilometres; the length of wires, 12,365 kilometres; the number of offices, 328. During the year 1874 the number of telegrams carried was 2,084,121. Under the working of the primary instruction law, there were, in January, 1871, according to government returns, 2608 public schools, with 6538 schoolmasters and 477 schoolmistresses, and 1119 private schools with 2332 schoolmasters and 1565 schoolmistresses. At the same date the pupils in the public schools numbered 390,129, and the pupils in the private schools, 111,762. There were, also, in 1871, 81 schools of middle instruction, with 7047 pupils, and 55 Latin schools, with 1128 pupils. There are three universities, Leyden, Groningen, and Utrecht, with 1339 students in January, 1871, and a polytechnic institution, at Delft, with 171 pupils.

Colonies.

The colonial possessions of the Netherlands embrace an area of 666,756 English square miles. The total population, according to the last returns, was 24,386,991.

The East Indian island of Java, possessing, with the adjoining Madura, an area of 51,336 English square miles, and a population, at the end of 1872, of 17,298,200, is by far the most important of the colonial possessions of the Netherlands. The whole of the other Netherlands possessions in the East Indies are administered as dependencies of Java.

Almost the entire trade of Java and Madura is with the Netherlands, and there is comparatively little commercial intercourse with other countries. The total imports, including specie, for 1873, were 108,304,000 guilders; total exports, including specie, 155,881,000 guilders. The principal articles of export from Java are sugar, coffee, rice, indigo, and tobacco. The imports of the other East Indian possessions, during 1873, were 42,486,000 guilders; the exports, 41,869,000 guilders.

The Dutch West India Islands, of which Curacoa is the most important, have a total population of 36,160, and an area of about 400 square miles. Surinam, with an area of about 45,000 square miles has a population of 69,834.

Commission from the NETHERLANDS to the International Exhibition:

DR. E. H. VON BOMHAUER, Honorary Professor, Secretary of the Dutch Society of Sciences, Director of the Society for the Advancement of Industry in the Netherlands, President.

F. DE CASEMBROOT, Rear Admiral, Aid-de-camp in Extraordinary Service to His Majesty the King of the Netherlands, and member of the States-General, 2d Chamber.

A. H. EIGEMAN, Industrial President of the Society of Dutch Industrials.

P. HARTSEN, Chairman of the Amsterdam Board of Commerce.

J. E. VAN HEEMSKERCK VAN BEEST, Artist.

DR. W. T. A. JONCKBLOET, President of the Committee of Superintendence of the Academy of Imitative Arts.

D. VAN DER KELLEN, JR., Member of Administration Society Arti et Amicitiæ.

L. C. VAN KERKWYK, Pensioned Lieutenant-colonel, Corps of Engineering, Member of the Council of Administration of the Royal Institution of Engineers.

M. M. DE MONCHY, President of the Board of Commerce.

DR. J. TH. MOULTON, Vice-President of the Society to Promote Manufactures and Trade Industry in the Netherlands.

C. T. VAN DER OUDERMEULEN, President of the Dutch Society of Agriculture.

BARON W. G. BRANTSEN VAN DE ZYP, LL.D., Lord in Waiting to His Majesty the King of the Netherlands.

DR. M. W. C. GORI, Doctor of Medicine, late Medical Officer of the Netherlands Army, Ophthalmic Surgeon.

R. C. BURLAGE, Consul-general of the Netherlands.

L. WESTERGAARD, Consul of the Netherlands.

D. D. KRUSEMAN VAN ELTEN.

C. MUYSKEN, Civil Engineer, Secretary.

DENMARK.

DENMARK is situated between 54° 23′ and 57° 54′ 50″ north latitude, and 8° 5′ and 12′ 45′ east longitude, excepting the small island of Bornholm in the Baltic, about ninety miles east of Seeland, which lies in 15° east longitude. Denmark is bounded on the north by the Skager Rack, a gulf of the North Sea; on the east by the Cattegat, the Sound, and the Baltic; on the south by the German Empire; and on the west by the North Sea, which the Danes call the "Western Ocean."

The kingdom of Denmark has an area of 14,553 English square miles, and a population (in 1874) of about	1,860,000
Faroe Islands, Iceland, Greenland, Danish possessions in the West Indies,	128,000
Total,	1,988,000

The chief pursuits are agriculture, cattle-breeding, navigation, and fishing, about one-half of the population being engaged in these industries.

The annual yield of grain may be calculated at about 100,000,000 bushels, beside 200,000,000 barrels of potatoes, beans, etc. About three-fourths of the whole country is under cultivation. The raising of horses and cattle is quite an important interest; the statistics of live stock are, approximately, as follows: horses, 350,000; cattle, 1,250,000; sheep, 1,900,000; hogs, 450,000.

The exports consist mainly of grain, flour, horses, cattle, hogs, meat, pork, butter, wool, hides and skins, beer, brandy, train oil, etc. The principal imports are iron, coal, salt, sugar, coffee, tea, wood, cotton cloth, tobacco, rice, etc.

Of manufactures, the most important are china ware, terra cotta, tiles, crockery, glass, tobacco, linen, cloth, paper, and soap. There are large woolen mills, sugar refineries, iron foundries, machine shops, dockyards, distilleries, tanneries, etc.; flour mills can be found in all sections of the country. The commerce is not inconsiderable, and Danish joiners' work, gold and silver ware, watches, gloves, terra cotta, etc., find ready sale abroad.

The merchant navy consisted, in 1875, of 2766 sailing vessels of 183,740 registered tons; 114 steamships of 24,323 registered tons, making a total of 2880 vessels of 208,063 registered tons.

The national wealth of Denmark is estimated at 4500 millions of crowns,* of which 3400 millions is real estate and 1100 millions capital, or about 2200 crowns to each individual.

In the 350 savings banks of the country, there were deposited, at the end of 1874, 194,308,902 crowns.

The army numbers, in all, 52,000 men. The navy consists of three iron-clad frigates and eight iron-clad corvettes, carrying 79 guns; three frigates, three corvettes, and five schooners, carrying 136 guns; twelve iron gunboats, carrying 17 guns. Also, transports, etc.

The budget for 1876–77 estimated the revenue at 50,008,843 crowns against an expenditure of 46,885,045 crowns. The public debt, April 1st, 1876, was 181,117,700 crowns against 262,034,296 crowns in 1869. The debt has, in five years, been reduced by more than 80,000,000 crowns.

(The foregoing statistics are furnished by the Danish Commission.)

* The Danish crown = 26 4-5 cents, gold.

The length of railways in the kingdom, at the end of 1874, was 1024.5 kilometres, of which 665 belonged to the State and 359.5 to companies.

The work of the post office for the year 1873–74 was 16,487,777 letters, and 15,134,812 newspapers.

The length of telegraph lines, 2545 kilometres; length of wires, 7049 kilometres; number of offices, 174; messages in 1874, 762,609.

Elementary education is widely diffused in Denmark, attendance at schools being obligatory from the age of seven to fourteen. Instruction is furnished gratuitously in the public schools to children whose parents cannot afford to pay for their teaching. Besides the university of Copenhagen, there are thirteen public gymnasia in the principal towns of the kingdom, which afford a classical education, and under them are a large number of middle schools, for the children of the trading and higher working classes. Instruction at the public expense is given in the parochial schools, of which there were, in August, 1869, 28 in Copenhagen, 132 in the towns, and 2780 in the rural districts.

Denmark is a constitutional monarchy. The people are efficiently represented, and have a voice in all public matters. The press is virtually free, and only answerable to law. The national assembly consists of the Folksthing and Landsthing, and is invested with very extensive powers; it meets annually for two months, but the deputies are elected triennially, and receive a fixed allowance during their sittings. The several colonies are governed by governors or high bailiffs, nominated by and alone responsible to the crown. The king has a privy council, in which there are associated with him the heir-apparent and eight members.

Commission from DENMARK to the International Exhibition:

JACOB HOLMBLAD, Manufacturer, President.
OLAF HANSEN, United States Vice-Consul, Vice-President.
JOH HANSEN, Austrian Consul-General, Treasurer.
TH. GREEN, Secretary.
C. C. BURMEISTER, Manufacturer.
V. CHRISTESEN, Manufacturer.
V. FIELDSKOV, Sculptor.
CHAS. HANSEN, Manufacturer.
WM. HAMMER, Artist.
CHR. HETSCH, Artist.
THOMAS SCHMIDT, Commissioner.

SWEDEN.

SWEDEN and Norway (Sverige and Norge), two independent kingdoms, but under a common king, form the Scandinavian peninsula, whose shores are washed by the waters of the Gulf of Bothnia, the Baltic, the Sound, the Kattegat, the Skager-Rack, the North Sea, the Atlantic and Arctic Oceans, and is thus completely separated from the mainland, with the exception of its northeastern part. The length of its coast, which is indented with numerous bays and fiords, and protected from the brunt of the sea by innumerable islands and rocks, may be estimated at about 3200 English miles, each kingdom possessing about one-half. The Scandinavian peninsula, of which Sweden forms the eastern and southern part (58 per cent.), while Norway makes up the rest (42 per cent.), embraces an area of 13,830 geographical square miles (294,000 English square miles). The united kingdoms have a population of rather more than six millions, of which 70 per cent. belong to Sweden, and 30 per cent. to Norway. The statistics of Norway are given elsewhere in this catalogue.

Although Sweden extends northward to latitude 69° 3′ 21.1″, thus passing beyond the Arctic circle, it reaches southward to latitude 55° 20′ 18″, coming within the latitude of its neighboring state, Denmark, and even further south than that part of Prussia which projects northward along the eastern shore of the Baltic. The total length of Sweden, from north to south, is about 950 English miles, and the width from 200 to 250 English miles. The observatory of Sockholm lies 18° 3′ 29.85″ east of Greenwich.

The läns (governments or departments) are the largest administrative divisions of the country, and frequently have two names, one of which is derived from the seat of government, the other usually from the old division of the provinces. The geographic division of the kingdom into three parts stands in intimate relation with the old provincial division. The three geographical divisions are as follows: Svealand (the central), Götaland (the southern), and Norrland (the northern); and though the boundaries of the läns and the provinces do not quite correspond, the following may on the whole be stated as correct:

Svealand has six provinces: Uppland, Södermanland, Westmanland, Nerike, Vermland, and Dalecarlia (or Dalarne).

Görland has nine provinces: Ostergötland, Westergötland, Dalsland, Smäland, Gottland, Blekinge, Scania or Skäne, Halland, and Bohnslaw.

Norrland comprises Gestrickland, Helsingland, Medelpad, Angermanland, Jemtland, Herjedalen, and Westerbotton, together with Lapland.

Lapland, the most northern part of Sweden, bordering on Norway, has an area of about 40,000 English square miles, and, together with Norrland, forms more than one-half the whole area. This vast territory is, of all the Swedish provinces, the least adapted to agriculture, and is but sparsely populated.

In 1874, the population of Sweden was divided among the different läns, as follows:

NAMES.	POPULATION.
The town of Stockhom,	150,446
Län of Stockholm,	134,620
" Uppsala,	103,282
" Södermanland,	139,216
" Ostergötland,	262,872
" Jönköping,	186,841
" Kronoberg,	163,793
" Kalmar,	238,399
" Gottland,	54,499
" Blekinje,	130,921
" Kristianstad,	228,498
" Malmöhus,	330,115
" Halland,	130,802
" Göteb, and Bohus,	241,936

NAMES.	POPULATION.
Län of Elfsborg,	285,217
" Skaraborg,	250,257
" Vermland,	266,362
" Orebro,	177,084
" Westmanland,	121,018
" Kopparberg,	184,330
" Gefleborg,	160,487
" Westernorrland,	147,212
" Jemtland,	74,758
" Westerbotten,	96,607
" Norrbotten,	81,987
Total,	4,341,559

The area is stated at 171,749 English square miles.

Sweden is generally less mountainous than Norway, and the highest mountains are found just on the border of that country. The boundary line itself is supposed to run along a mountain chain, which is called by geographers the Kölen, though in reality there is no mountain of that name. The highest mountain in Sweden, Sulitelma (6315 Swedish feet above the level of the sea), lies in Laplaud, and is the only alpine elevation in Sweden where, as far as is known, glaciers are found, but there are other mountains in these districts, and still further south along the frontier of the kingdom, in Jemtland and Herjedalen, with an elevation of from 4000 to 5000 feet, whose peaks are dotted with patches of snow the whole year round.

About eight per cent. of the area of Sweden is considered to lie upwards of 2000 feet above the level of the sea. Those parts which sometimes extend beyond the tree-line are exclusively in Norrland and Dalarne, and border upon Norway. The coast-line along the Gulf of Bothnia, and the whole of the central and southern parts of Sweden, lie, with few exceptions, lower than 800 feet above the level of the sea. Of the whole area of the kingdom, a third part does not lie 300 feet above the level of the sea, and it is within these lower lying districts that the most highly cultivated parts of the country are found, as well as the largest plains, such as the Uppland, the Ostgöta, the Westgöta, and the Skane plains. With the exception of these, the plains are neither numerous nor large, for, though there are extensive tracts of land which attain a height of only a few hundred feet above the level of the sea, these are generally intersected by numerous hills and valleys.

Sweden, next to Finland, is the best irrigated country in Europe, as her lakes and rivers cover an area of 14,428 English square miles, or 8.4 per cent. of her whole territory, while she has a sea coast of 1500 English miles. The water of the Swedish lakes, as well as that of the rivers, is generally clear and drinkable. Lake Wetter is especially known for its clear, but at the same time turbulent, body of water, as well as for its great depth—420 feet. Of the numerous rivers (or elfs) which flow into the Gulf of Bothnia, the Angerman elf is the best known, not only for its volume, but for its natural beauty. The Dal elf, which is usually considered as the dividing line between Norrland and the southern part of Sweden, empties further to the south. On the west coast flows the Göta elf, the outlet of Lake Wener, famed for the Trollhätta waterfall.

Almost every river or stream forms a foaming current or roaring cataracts, and there are thousands of them. Even the Trollhätta finds a rival in the Njommelsaska (Hare's Leap), in Lapland. One of the peculiarities of these lakes is that they are sometimes interrupted by an almost perpendicular fall—the water then spreading out, forming a second part of the lake. The nation possesses in these numerous falls an almost inexhaustible water power, which has not, as yet, been utilized to that extent which it might be. This character of the Swedish rivers carries with it, however, the disadvantage of rendering them innavigable, many of the rivers (the Dal elf, for instance) being barred at their very mouths by a fall; and, as a rule, they are navigable only for a mile or two, except for rafts and small boats, unless, as in the case of the Göta elf, they are provided with canals

The climate of Sweden is mild in comparison to its high latitude, a fact which is attributed to the influence of the Gulf Stream. There are dense forests; and barley and rye mature in the province of Norrland, while its most southern part lies in the same latitude as the ice fields of Greenland, and its northern in that of barren Iceland. The country, extending through so many degrees of latitude, has a great variety of climate. The mean yearly temperature of the northern parts along the coast is 34° F., while that of the southern is 44° to 46° F. The mean yearly temperature of Stockholm is 41° F. The wells which serve as a measure of the earth's temperature, give about the same figures, the average temperature of a deep well in central Sweden being 43° F., while it is not unusual in Lapland to find a deep well covered with ice in midsummer, or a bog, 5 to 6 feet deep, frozen at its bottom; nevertheless,

the cereals and potatoes mature in these districts, for although the summer is short, it is very warm and clear. There can scarcely be said to be any night here during the summer, only a twilight, so that vegetation, even in this high latitude, receives the light and heat necessary for its ripening. The temperature of the southern parts is also subject to very great changes.

The farmers' worst enemy in Sweden is the frost, which in a single clear night, perhaps, after a warm summer day, will destroy his brightest prospects; but it is hoped that the increase of tillage, the draining of the bogs, and like causes, will at least mitigate its severity, if not altogether prevent it. Such severe frosts are very rare in the central and southern parts of Sweden.

(The greater portion of the foregoing was furnished by the Swedish commission.)

Mining is one of the most important departments of Swedish industry, and the working of the iron mines in particular is making constant progress by the introduction of new machinery. There were raised, in the year 1873, 19,458,339 hundredweight of iron ore from mines, besides 126,147 hundredweight from lake and bog. The pig iron produced amounted to 7,987,646 hundredweight, the cast goods to 501,350 hundredweight, the bar iron to 4,125,915 hundredweight, and the steel to 1,290,907 hundredweight. There were also raised, in the same year, 1660 pounds of silver, 26,152 hundredweight of copper, and 645,631 hundredweight of zinc ore. There are large veins of coal in various parts of Sweden, but no systematic working of them has as yet taken place.

The principal articles of cultivation are, in addition to the various cereals, potatoes, hemp, flax, tobacco, and hops, which are generally grown in sufficient quantities for home consumption. The forests are of great extent, covering nearly one-fourth of the whole surface, and, in some spots, rising to an elevation of 3000 feet above the level of the sea. The birch, fir, pine, and beech are of great importance, not only for the timber, tar, and pitch which they yield, but also for their supplying charcoal and firewood. The common fruit trees, as cherries, apples, and pears, grow as far north as 60°, but the fruit seldom comes to great perfection except in the southern provinces; cranberries and other berries abound in all parts of the country.

In 1870, there were in Sweden, 428,446 horses, 1,965,800 horned cattle, 1,780,000 sheep and goats, and 354,303 swine.

In 1873, there were 2549 factories, with a production valued at 146,869,000 crowns.* Mines and mining establishments are not included in these figures. Ship building forms an extensive branch of industry.

According to the "Statesman's Year Book for 1876," the commercial navy of Sweden, at the end of 1873, numbered 1865 registered vessels for foreign trade, of a total burthen of 366,370 tons. The total imports, for the same year, were 271,440,000 riksdalers,† and the exports, 221,904,000.

Sweden is a constitutional monarchy, based on the fundamental law of 1809, by which it was decreed that the succession should be in the male line; that the sovereign should profess the Lutheran faith, and have sworn fidelity to the laws. The diet, which meets every year, and remains sitting for three or four months, is composed of two chambers, which are both elected by the people. The members of the first chamber serve for nine years, and those of the second for three. The diet exercises a strict control over the expenditure of the revenue, fixes the budget, and has power to take cognizance of the acts of the ministers and crown officers. The king's person is inviolable, and he can exercise a veto on the decrees of the diet. He is assisted by a Council of State, composed of ten members, who are responsible to the diet.

The budget estimates for 1875 place the receipts at 64,775,900, and the expenditures at 71,885,798 riksdalers. At the end of October, 1875, the public liabilities of the kingdom were 130,477,920 riksdalers.

* The Swedish crown equals 26.8 cents. † One riksdaler equals one crown.

The total strength of the armed forces of Sweden, at the end of September, 1875, was 132,775. The navy consists of 131 vessels, of 3183 horse-power, carrying 394 guns, and with crews aggregating 4693.

At the end of September, 1875, the total length of railways opened for traffic was 2237 English miles, of which 938 miles belonged to the State. All the telegraphs, with the exception of those of private railway companies, belong to the State. The total length of telegraph lines, at the end of 1874, was 4981 English miles; the total length of wires, 10,980 English miles. The total number of dispatches sent, in the year 1874, was 986,397.

The Swedish post office carried 16,711,100 letters in the year 1873. The number of post offices, at the end of the year, was 641.

Education is well advanced in Sweden. Public instruction is gratuitous and compulsory, and children not attending schools under the supervision of the government must furnish proofs of having been privately educated. In the year 1871 nearly 97 per cent. of all the children between eight and fifteen years visited the public schools.

Commission from SWEDEN to the International Exhibition:

P. A. BERGSTROM, late Minister of Interior, President Board of Domains, President.
C. O. TROILIUS, Director-General of Public Railways, Vice-President.
F. L. VON DARDEL, Director-General Board of Public Buildings
CH. DICKSON, M.D.
BARON A. H. E. FOCK, Chief of Board of Controls.
F. W. SCHOLANDER, Professor, Academy of Fine Arts.
C. F. LUNDSTROM, Manufacturer.
N. H. ELFVING, Consul-General.
S. STENBERG, Professor, Carolinian Medico-Chirurgical Institution.
A. R. AKERMAN, Professor School of Mines.
J. BOLINDER, Manufacturer.
J. LENNING, Manufacturer.
C. L. LUNDSTROM, Manufacturer.
CL. G. BREITHOLTZ, Colonel of Artillery.
K. PEYRON, Captain in the Navy, Chamberlain.
F. WIDMARK, Chief of the Board of Public Education.
H. WIDEGREN, Superintendent of Fisheries.
P. E. SIDENBLADH, Secretary of the Central Board of Statistics.
V. NORMAN, Captain of Engineers, Secretary.

Resident Commissioners in Philadelphia.

C. JUHLIN DANNFELT, Commissioner-General.
CHARLES BILDT, Chamberlain, Assistant Commissioner.
L. WESTERGAARD, Consul, Assistant Commissioner.
DR. J. LINDAHL, Ph., Secretary.
DR. WM. P. HEADDEN, Ph., Assistant Secretary.
W. HOFFSTEDT, Engineer, Secretary of the Judges.
M. ISÆUS, Architect.
COUNT FR. POSSE, Engineer.

Special Commissioners.

G. W. BERGMAN, Captain of Artillery, Army Department.
E. BRUSEWITZ, Engineer, Metallurgical Department.
BARON O. HERMELIN, Fine Art Department.
A. E. JACOBI, Engineer, Machinery Department.
C. J. MEIJERBERG, Professor Educational Department.

NORWAY.

NORWAY, the western portion of the Scandinavian peninsula, is situated between 57° 58′ and 71° 10′ north latitude, and between 5° and 28° east longitude. It is bounded to the east by Sweden and Russia, and on every other side is surrounded by water, having the Skagerrak to the south, the German Ocean to the west, and the Arctic Sea to the north. Its length is about 1100 miles, and its greatest width about 250 miles; but between the latitudes of 67° and 68° it measures little more than 25 miles in breadth. The area is given as 121,779 square miles, and the population as 1,800,000. Only 1.6 per cent. of the whole area can be cultivated; natural pastures occupy about 1.5 per cent; forests, about 20.2 per cent.; mountains, glaciers, lakes, rivers, and land, etc., about 76.7 per cent. The whole of the Scandinavian peninsula consists of a connected mountain mass, which, in the southern and western parts of Norway, constitutes one continuous tract of rocky highlands, with steep declivities dipping into the sea, and only here and there broken by narrow tracts of arable land. South of Trondjem (63° north latitude) the rocky ridge expands nearly the entire breadth of Norway. The northern portions of the range, known as the Kiöllen Fielle, occupy a space of about 25 miles in width, and form, as far north as 69°, the boundary line between Sweden and Norway. South of 63° north latitude the range of the Scandinavian mountains is known as the Norske, or Dovre Fielle, although the latter name belongs properly only to the part immediately in contact with the Kiöllen. This range, about 360 miles in length, attains its greatest elevation at the Sogne Fjord, where it is known as the Hurungerne. Here the highest summits are 8000 and 8400 feet above the sea, while the contiguous snowfields of Justedal, the largest in Europe, and covering an area of 600 square miles, have probably an elevation of nearly 7000 feet. From these and other vast snowfields, averaging more than 10 miles in width, vast glaciers descend to within 2000 feet above the sea, where they often terminate in deep lakes, some of which are very extensive. The upper valleys of this range, although generally too high for cultivation, contain the best timber that is exported from Norway, and afford good pasturage in the height of the summer, when the flocks and herds are driven thither from the lowlands near the entrance of the fjords. The general elevation of the Norska Fielle does not rise above the line of perpetual snow, whose average height in these latitudes is 5000 feet, but it ranges above that of the growth of trees, which may be stated to lie 1000 feet lower. The most northern part of the Norska Fielle, which is known as the Dovrefield, and includes Sneehätten, nearly 7500 feet above the sea, presents a broken surface, rent with ravines and narrow valleys, which admit of cultivation, but are difficult of access from the configuration of the land around them.

The Scandinavian range consists principally of primitive and transition rock, and exhibits almost everywhere the effect of glacial action, the glaciers and moraines presenting the same appearances as in the Swiss alpine district. The numerous islands which skirt the coast of Norway, and must be regarded as portions of the range, present the same characters as the continental mass. Some of these, as the islands of Alsten and Dunnoe, rise perpendicularly from the sea with peaks penetrating beyond the snowline, which lies here at an elevation of 4000 feet. Norway abounds in lakes and streams; according to some topographers, there are upwards of 30,000 of the

former, of which the majority are small, while none have an area exceeding 400 square miles. The chief rivers of Norway are the Glommen, Lougen, Louven, Drammen, Otter, and Wormen. The first of these has a course of 400 miles, but the majority of the Norwegian streams, all of which rise at great elevations, have a comparatively short course, and are unfit for navigation, although they are extensively used to float down timber to the fjords, whence the wood is exported in native ships to foreign ports. These fjords, or inlets of the sea, which form so characteristic a feature of Norwegian scenery, and give with their various sinuosities a coast-line of upwards of 8000 miles, form the outlet to numerous rapid streams and waterfalls, which leap or trickle down the edges of the treeless fields or mountain flats above.

The peculiar physical character of Norway necessarily gives rise to great varieties of climate in different parts of the country. The influence of the sea and of the Gulf Stream, and the penetration into the interior of deep inlets, greatly modify the severity of the climate on the western shores, and render it far superior to that of the other Scandinavian countries in the same latitude. In Norway proper, the winters, as a rule, are long and cold, and the summers, which rapidly follow the melting of the snows in April and May, are warm and pleasant. On the islands, however, the heats of summer are often insufficient to ripen corn.

Norway had, in 1875, 150,000 horses, 950,000 oxen and cows, 1,710,000 sheep and goats, 110,000 pigs, and 102,000 reindeer. The value of the annual product is about $25,000,000.

The principal cereals cultivated in Norway are oats, barley, corn, rye, and wheat; the yearly produce is about 11,160,000 bushels, besides 14,100,000 bushels of potatoes. The value of the harvest amounts to about $16,000,000 per annum.

The products of agriculture and cattle-breeding being insufficient to supply the wants of the country, considerable quantities are imported.

Forestry is of great importance. As stated above, the forests of Norway cover more than one-fifth of its entire area. They supply considerable quantities of timber, both for home consumption and exportation. The average annual exports of timber amount to about $16,000,000.

The fisheries of Norway employ about 27,000 men, and yield about $16,000,000 per annum. They are of great importance, and not only yield one of the most important articles of home consumption, but at the same time constitute one of the most profitable sources of foreign export. Fish are caught in almost every stream and lake of the interior, as well as in the fjords of the coast, and in the bays and channels which encircle the numerous islands skirting the long sea-line of Norway. These fish are principally cod and herring. Cod, prepared as stock-fish or dried salt fish, is exported to Spain and Italy; herring to the Baltic ports.

The merchant marine of Norway had, in 1875, a tonnage of 1,220,000, and was manned by 53,000 seamen.

The following statistics apply to the exports and imports of Norway in 1873:

Value of goods exported,	$33,000,000	
Gross freight of goods carried in Norwegian vessels,	28,400,000	
Receipts from various sources,	800,000	
		$62,200,000
Value of goods imported,	$45,800,000	
Expenses of Norwegian vessels in foreign countries,	11,400,000	
Other expenses,	2,400,000	
		59,600,000
Balance,		$2,600,000

The principal articles of export were, in 1873: Products of the fisheries, $11,600,000; of forestry, $15,500,000; of agriculture and cattle-breeding, $1,300,000; metals and minerals, $1,800,000; textile fabrics, $660,000.

The imports were principally: Articles of food, $13,500,000; coffee, $3,500,000; liquors, $1,000,000; textile fabrics and dry goods, $8,300,000; hardware, $3,300,000; hides, $1,200,000; coal, $1,700,000; vessels, $4,400,000.

Manufactures have made some progress during the last few years, but are, as yet, inconsiderable. About 32,000 persons are employed, mainly in sawmills, planing mills, brick factories, shipbuilding, and metallurgical and textile industries.

The mineral products comprise silver, copper, cobalt, iron, chrome, ironstone, etc., and yield an annual income of nearly $1,000,000.

Education is compulsory, parents being bound to let their children, between the ages of seven and fourteen, receive public instruction; 241,000 children attend the common schools, and 16,500 receive a higher instruction. The expenses of the higher schools were, in 1873, $827,000.

The public revenue, in 1873, was $6,870,000, and the expenditures $7,277,000, of which amount $865,000 was for the construction of railways. The public debt amounts to $9,200,000.

Norway has 12,432 miles of highways and district roads, 304 miles of railways, and 147 miles of canals. There are 719 post offices, which distribute 7,500,000 letters per annum.

(The foregoing statistics are furnished by the Norwegian Commission.)

According to "Martin's Year Book," there were, at the end of 1873, telegraph lines of the length of 3745 miles, and wires of the length of 5845 miles.

The government of Norway is a constitutional monarchy. The executive is represented by the king, who exercises his authority through a Council of State, composed of one minister of state and nine councillors. The legislative power of the realm is the Storthing, or Great Court, the representative of the sovereign people.

On the 1st of January, 1874, the troops of the land numbered 13,000 men. The reserve forces at the same time numbered 19,000, and the landwaern 11,000 men. The naval force comprised, at the same date, twenty vessels, all steamers, with an armament of 149 guns.

Commission from NORWAY to the International Exhibition:

HERMAN BAARS. WM. C. CHRISTOPHERSEN.

GERHARD GADE, U. S. Consul.

ITALY.

THE geographical territory comprised under the name of Italy consists of a considerable stretch of peninsular mainland, besides several islands, situated in Southern Europe, between latitude 36° 35′ and 47° north, and between longitude 6° 35′ and 18° 35′ east. From the southern extremity of Sicily to the Alps its maximum length is about 600 miles, its utmost breadth being 300 miles. Its boundaries on the north are Austria and Switzerland, on the south the Mediterranean, on the west France and the Mediterranean, and on the east the Ionian and Adriatic seas, while its natural limits are strongly defined by the Alps and the sea.

The first general census of the kingdom of Italy was taken by the government on the 31st of December, 1871, on which date the population numbered 26,796,073 souls, living on an area of 296,013 square chilos, or 112,677 English square miles. The density of population was 237 per English square mile.

The kingdom of Italy is administratively divided in 69 provinces, as follows:

	POPULATION.	
PIEDMONT AND LIGURIA.		
1. Alessandria,	683,361	
2. Cuneo,	617,232	
3. Genoa,	716,284	
4. Novara,	624,969	
5. Porto Maurizio,	127,042	
6. Turin,	972,988	
		3,741,876
ISLAND OF SARDINIA.		
7. Cagliari,	392,981	
8. Sassari,	243,274	
		636,255
LOMBARDY.		
9. Bergamo,	368,152	
10. Brescia,	456,023	
11. Como,	477,642	
12. Cremona,	300,595	
13. Milan,	1,009,794	
14. Pavia,	448,357	
15. Sondrio,	111,240	
		3,171,803
EMILIA.		
16. Bologna,	439,232	
17. Ferrara,	216,545	
18. Forli,	234,090	
19. Massac Carrare,	161,944	
20. Modena,	273,231	
21. Parma,	264,509	
22. Piacenza,	225,775	
23. Ravenna,	220,801	
24. Reggio,	240,635	
		2,276,762

	POPULATION.	
THE MARCHES.		
25. Ancona,	262,369	
26. Ascoli Piceno,	203,008	
27. Macerata,	236,994	
28. Pesaro e Urbino,	213,072	
		915,443
UMBRIA.		
29. Perugia,		549,833
TUSCANY.		
31. Arezzo,	234,645	
31. Florence,	766,611	
32. Grosseto,	107,457	
33. Leghorn,	118,851	
34. Lucca,	280,399	
35. Pisa,	265,959	
36. Sienna,	206,446	
		1,980,368
NEAPOLITAN PROVINCES.		
37. Aquila,	332,782	
38. Avellino,	375,237	
39. Bari,	604,540	
40. Benevento,	232,012	
41. Campobasso,	364,843	
42. Caserta,	695,754	
43. Catanzaro,	412,226	
44. Chisti,	340,299	
45. Cosenza,	440,272	
46. Foggia,	322,754	
47. Lecce,	493,574	
48. Naples,	908,029	
49. Potenza,	509,202	
50. Reggio,	353,606	
51. Salerno,	541,739	
52. Teramo,	245,684	
		7,171,553
SICILY.		
53. Caltainisetta,	230,066	
54. Catania,	495,240	
55. Girgenti,	289,018	
56. Messina,	420,649	
57. Palermo,	617,660	
58. Siracusa,	294,915	
59. Trapani,	236,388	
		2,583,936
VENETIA.		
60. Belluno,	175,370	
61. Mantua,	288,942	
62. Padua,	364,353	
63. Rovigo,	200,835	
64. Trevise,	352,538	
65. Udine,	481,787	
66. Venezia,	337,539	
67. Verona,	367,426	
68. Vicenza,	363,161	
		2,931,953
69. ROME,		836,291

According to the old political division, the population is divided as follows:

Piedmont and Liguria,	3,741,876
Island of Sardinia,	636,255
Lombardy,	3,171,803
Emilia,	2,276,762
The Marches,	915,443
Umbria,	549,833
Tuscany,	1,980,368
Neapolitan Provinces,	7,171,553
Sicily,	2,583,936
Venice,	2,931,953
Rome (States of the Church),	836,291
	26,796,073

The physical aspect presented by the surface of Italy is diversified in the extreme. Northern Italy is, for the most part, composed of one great plain—the basin of the Po, comprising all Lombardy and a considerable portion of Piedmont and Venice, bounded on the northwest and partly on the south by different alpine ranges. Throughout Central Italy, the great Apennine chain gives a picturesque irregularity to the physical configuration of the country, which in the southern extremity of Italy assumes still wilder forms. In the highland districts of Naples in which the Apennine ridge reaches its maximum elevation (10,000 feet), the scenery exhibits a savage grandeur. Along the extensive coast plains, as well as in the sub-Apennine valleys, the rural charms of this portion of Italy are extreme, while the brilliant flora and vegetation impart to it a novel character of beauty. The chief mountain system of Italy is the frontier ridge of the Alps, and their noble continuation, the Apennines.

Italy likewise comprises a considerable stretch of volcanic zone, which traverses the peninsula from the centre to the south in a line parallel with that of the Apennines, and of which the most remarkable active summits are Vesuvius, adjoining Naples, Ætna in Sicily, and Stromboli in the Lipari Isles.

The great plains of Italy are those of Lombardy, which stretch from the Mincio to the Ticino and the Po; of Piedmont; the Venetian plains; the plain of the Roman legations; the plain of the Campo Felice, on which stands Vesuvius; the Apulian plain; the long, narrow Neapolitan plain of the Basilicata, 100 miles in length, and 24 miles in breadth, stretching along the Gulf of Tarento.

The great majority of the rivers of Italy are only navigable for small coasting boats or barges. By far the most important is the Po, which rises on the borders of France, and flows into the Adriatic. It has numerous tributaries. Among the others may be mentioned the Adige, Brenta, Piave, Tagliamento, Aterno, Sangro, Metauro, Ofanto, Bradano, also belonging to the Adriatic basin; the Arno, the Tiber, the Ombrone, the Garigliano, and the Volturno, which belong to the Mediterranean basin.

The canal system of Italy is most extensive in the north. Nine principal canals in Lombardy administer to the irrigation of the plains and to the purposes of commercial communication, contributing in no small degree to the prosperity of the district. The Naviglio Grande or Ticinello is the finest hydraulic construction in Italy; it communicates between the Ticino and Milan, and has a course of 28 miles, navigable for vessels of large size. It was begun in 1179. The Naviglio Martesana, 38 miles long, unites Concesa on the Adea with Milan; the Naviglio di Pavia is 18 miles in length; the bifurcated Naviglio d'Ostiglia unites the Po with the Adige. 253 canals intersect Piedmont, extending over a length of 1932 kilometres. Venice comprises 203 navigable, and 40 minor canals. Numerous canals have been constructed for the drainage of the Pontine Marshes. This system of water communication was early carried to a high degree of efficiency in Italy, and is of incalculable service in the agricultural districts.

The mountain lakes of Italy are famed for their picturesque beauty. They are mostly in the northern provinces of Lombardy and Venetia. The principal are Maggiore, Lugano, Como, Iseo, and Garda. The Roman lakes of Perugia, Bolseno, and Bracciano, that of Castiglione in Tuscany, and Celano in Naples, also deserve mention.

The mineral and thermal springs of Italy are innumerable, and possess a great variety of curative and sanitary properties.

In the northern provinces, the climate is temperate, salubrious, and frequently severe in winter; in the centre, it assumes a more genial and sunny character: while the heat of the southern extremity is almost of a tropical intensity. The singular clearness of the atmosphere sets off the landscape and monumental beauties of Italy with brilliant effect. The drawbacks of Italy's climate are the piercing tramontana or mountain winds; the deadly sirocco, which blights all nature at seasons along the western coast; and the malaria or noxious miasmata which issues from the Maremma of Tuscany, the Pontine Marshes, and the Venetian lagoons, generating pestilential fevers and aguish diseases in the summer season. The mean temperature of the leading divisions of the country throughout a whole year was as follows: Milan, 55° 4′ of Fahrenheit's scale; Rome, 59°; Palermo, 62° 5′; and in Sardinia, 60° 5′. The highest temperature at Rome rises to 95°, and in Sicily from 97° to 104°.

The staple products of Italy are corn, wine, oil, raw silk, rice, olives, and fruits. Hemp, flax, and cotton are also largely grown. The sugar-cane is successfully cultivated in the two Sicilies. Agriculture, except in the north, is in a very backward condition. It is calculated that only two-thirds of the area of the kingdom capable of production are cultivated, and that the rest lies waste. The superficial extent of the productive soil of Italy is 23,017,096 ellaras,* divided thus:

	ELLARAS.
Arable land,	11,003,061
Meadow land,	1,173,436
Rice ground,	144,903
Olive plantations,	554,767
Chestnut plantations,	585,132
Woods and forests,	4,158,349
Pastures,	5,397,448
Total,	23,017,096

There are, besides, 3,997,059 ellaras of rock and marsh. Of the land capable of cultivation, more than half is devoted to the growth of cereals, mainly wheat. The average crop is insufficient for the supply of the country. The wines of Naples are esteemed the best, small quantities of the famous *Lachrima Christi* and the *Vind d'Asti* being exported, while the Sicilian wines of Marsala form a considerable item of export. The best oil and olives are furnished by Tuscany, Lucca, and Naples. Silk is chiefly manufactured in the northern provinces, the cultivation of the mulberry and the rearing of the silkworm forming, in Lombardy, a most important interest. The best manufactured silk comes from Piedmont, Tuscany, and the Roman provinces. The fruits of the two Sicilies are exquisite in flavor, and embrace several tropical species. Oranges, lemons, almonds, figs, dates, melons, and the pistachio nut, are common to all orchards, and are largely exported. A considerable cheese trade exists in the northern provinces.

The sea and fresh water fisheries of Italy are considerable, the Mediterranean furnishing immense quantities of tunny, anchovies, sardines, mullets, pelchards, and mackerel. The export of anchovies and of sardines is of immense extent. The

* One ellara equals 2.47 acres.

river fisheries yield salmon, trout, sturgeon, lampreys, tench, barbel, etc. The crustaceans and shell fish of the Italian seas are of great variety and delicate flavor, and are a favorite article of Italian consumption.

The total exports of the kingdom, during the year 1874, were 1,304,994,328 lire;* the imports, during the same year, 985,458,532 lire.

The number and tonnage of merchant vesssls belonging to the kingdom, on January 1st, 1874, were as follows: 17,562 sailing vessels, aggregating 925,337 tons burthen; and 103 steamers, of a total burthen of 24,476 tons. Of the sailing vessels, 9074 were under 6 tons each.

According to the present constitution of Italy, the executive power belongs exclusively to the sovereign, and is exercised by him through responsible ministers. The legislative authority vests conjointly in the king and parliament, the latter consisting of two chambers, a Senate and a Chamber of Deputies. The Senate is composed of the princes of the royal house who are of age, and of an unlimited number of members, above forty years old, who are nominated by the king for life; a condition of the nomination being that the person should either fill a high office, or have acquired fame in science, literature, or any other pursuit tending to the benefit of the nation: or, finally, should pay taxes to the annual amount of 3000 lire. The members of the Chamber of Deputies are elected by a majority of all citizens who are twenty-five years of age and pay taxes to the amount of 40 lire. A deputy must be thirty years old, and must have the requisites demanded by the electoral law, among them a slight property qualification. Neither senators nor deputies receive any salary.

The following are the budget estimates for 1875:

Estimated revenue,	1,344,164,158 lire.
Estimated expenditures,	1,575,487,190 "

The entire public debt, at the end of 1873, was 9,757,613,267 lire.

The actual strength of the army, at the end of December, 1873, was:

Number of men under arms (peace footing),	199,557
Number of men on unlimited furlough,	244,952
Total (war footing),	444,509

The navy, at the commencement of 1875, consisted of 95 ships of war, carrying 1256 guns. Of these, 9 were ironclads, carrying 346 guns, 46 were screw steamers, carrying 693 guns, and 32 paddle steamers, carrying 113 guns.

The total length of railways opened for traffic, at the end of 1874, was 4607 English miles.

The number of post offices at the commencement of 1874 was 2709. In the year 1873 the post office carried 504,402,431 letters and 94,402,596 printed parcels.

The length of telegraphic lines, on the 1st of January, 1874, was 12,622 English miles, nearly two-thirds of the whole belonging to the government. There were, at the same date, 1408 telegraphic offices. The number of private telegrams during 1873 was 4,670,090, and of official telegrams, 163,852.

Under the new Italian government, a great part of the property confiscated from the monastic establishments has been devoted to the cause of public education. In addition to this, the Parliament votes an annual credit of 15,000,000 lire for the same purpose. Since the commencement of the year 1860 there were opened throughout the kingdom thirty-three model schools. Notwithstanding these important aids to instruction, education still stands very low. According to the census of 1864, out of a total population of 21,703,710 souls, there were about 17,000,000 who could neither read nor write. Piedmont occupied the first place, Sicily the last, on the register of knowledge. In the Basilicata, Calabria, and Sicily, more than nine-tenths of the population could neither read nor write.

* One lire equals 19.3 cents gold.

There are twenty-two universities in Italy, many of them of ancient foundation. By a decree of the Minister of Public Instruction, issued in 1871, six high-schools—Naples, Pavia, Turin, Bologna, Florence, and Parma—were declared first-class universities of the kingdom. The number of students at all the universities was returned as 10,324 in 1871.

Commission from ITALY to the International Exhibition:

H. E. BARON BLANC, Minister Plenipotentiary.
COUNT B. LITTA, First Secretary of Legation.
CHEVALIER ALONZO M. VITI, Vice-Consul.
A. PADOVANI, President of the Central Committee.
JOSEPH DASSI.
N. CANTALAMESSA PAPOTTI.
PIO BACCARANI.
G. VIGNA DEL FERRO.
G. CONARI.
ANGELO GIANELLO, General Agent.

EGYPT.

THE territories under the rule of the sovereign of Egypt, including those on the Upper Nile and Central Africa, are vaguely estimated to embrace an area of 4,777,830 square kilometres, and to be inhabited by a population of 16,952,000, of whom about one-third are in Egypt proper. The following tabular statement gives the area and population of the various divisions of the kingdom, and its recent annexation, according to government estmate, of the year 1875:

DIVISIONS.	AREA, SQ. KILOMETRES.	POPULATION.
Egypt proper,	550,630	5,252,000
Nubia,	864,500	1,000,000
Former kingdom of Ethiopia,	2,918,000	5,000,000
Darfur, and other annexed territories,	444,700	5,700,000
	4,777,830	16,952,000

The great physical peculiarity of Egypt is the absence of rain, the land being only irrigated by the annual overflow of the Nile. The climate is remarkably mild and sound, especially south of the Delta; and in the desert, from Cairo to Alexandria, the air contains more moisture than to the south. From the middle of August to December, west winds prevail; east winds from that time till March; after that, unhealthy south winds or Khamsin till June; and from June till August the north or Etesian winds. Earthquakes are occasionally felt, and the temperature varies from 84° F. to 32°. The most remarkable phenomenon is, however, the regular increase of the Nile, fed by the fall of the tropical rains, which commence in 11° north latitude, in the spring; and falling first into the White, and then Blue Nile, reach Egypt in the middle, and the Delta in the end of June. In the middle of July, the red water appears, and the rise may be dated from that time it attains its maximum at the end of September, and begins to decline visibly in the middle of October, and subsides to its minimum in April. At the end of November, the irrigated land has dried, and is sown, and is covered with green crops, which last till the end of February. In March is the harvest. The state of the Nile, in fact, marks the season more accurately than the variation of temperature. Egypt is by no means remarkably healthy, as, in addition to the visitations of plague and cholera, ophthalmia, diarrhœa, dysentery, and boils often prevail, and European, and even Nigritic races cannot be acclimatized.

Many of the European trees and plants are found in Egypt; the date-palm, the doom-palm, the sycamore, acacias, tamarisks, etc., are among its more peculiar botanical productions. The extensive culture of papyrus has been, in modern times, replaced by that of the sugar-cane, cotton, indigo, and tobacco, and the plant has almost disappeared. Gourds and melons have always abounded. To the wheat and barley of antiquity have been added maize and durra. Egypt is very deficient in timber trees. The rocks of Egypt afforded the stones used in its edifices and sculptures; granite, syenite, breccia (in the Cossier Rood), porphyry (from the quarries of Gebel Dokhan, opened in the reign of the Emperor Claudius),

sandstone, and limestone. Alabaster (found at Middle Egypt) has been used from the earliest periods to the present day. Emeralds are produced by the mines of Gebel Zabara; salt, natron, and—since 1850—sulphur, are among the other mineral productions of Egypt.

Egypt proper is divided into three great districts, namely: Masr-el-Bahri, or Lower Egypt; El-Wustani, or Middle Egypt; and El-Said, or Upper Egypt—designations drawn from the course of the river Nile. These three geographical districts, subdivided into eleven administrative provinces, had, according to an enumeration made by the government in March, 1872, a rural population of 4,603,660, and an urban population of 648,340, dispersed over six towns, as follows:

Cairo,	349,983	Tanta,	28,500
Alexandria,	212,054	Rosetta,	15,002
Damietta,	29,383	Suez,	13,498

The Khedive is absolute sovereign or king. The administration is carried on by a Council of State of four military and four civil dignitaries.

The revenue of Egypt for the financial year ending September 10th, 1874, was calculated in the official budget at 1,982,394 purses;* the expenditures at 1,763,128 purses.

The public debt of Egypt consists chiefly of foreign loans. These are divided into two classes, namely, general loans, contracted by the State, and loans of the Khedive, as greatest of land-owners, raised on his individual responsibility.

The following table shows the actual state of the debt:

Funded debt,	£49,270,380
Floating debt,	7,600,000
	£56,870,380
Personal debt of the Khedive,	13,174,360
Total,	£70,044,740

The army is raised by conscription. It consisted, in January, 1875, of four regiments of infantry, of 3000 men each; of a battalion of chasseurs, of 1000 men; of 3500 cavalry, 1500 artillery, and two battalions of engineers, of 1500 each. There are, besides, two regiments of black troops, of Sudan, numbering 5000 men.

The Egyptian navy comprised, in 1875, 7 ships of the line, 6 frigates, 9 corvettes, 7 brigs, 18 gunboats and smaller vessels, and 27 transports.

The commerce of Egypt is very large, but consists, to some extent, of goods carried in transit. The total exports for the year 1873 amounted to about 1,450,000,000 piastres the imports to about 600,000,000 piastres. The merchant navy, in 1872, comprised 585 vessels of a total burthen of 59,874 tons.

The commerce of the world has been greatly benefited by the Suez Canal, which connects the Mediterranean with the Red Sea. Starting from Port Said, forty miles east of the Damietta mouth of the Nile, it proceeds across the isthmus and through lakes Menzaleh, El Ballah, and Timsah, on the shores of which latter stands the new town of Ismailia, and through the Bitter lakes to Suez. Its total length is 92 miles. Its actual width over the greater part of its length, does not permit of two vessels passing or crossing each other in the canal itself; but there are numerous sidings, by which vessels are enabled to cross one another; vessels measuring 430 feet in length and drawing 25 feet 9 inches of water have passed safely through the canal. Its actual cost, according to the report for the year 1875, was £17,518,729, exclusive of £1,360,000 bonds issued to pay for coupons on shares in arrear during part of the period of construction.

* 1 purse = 500 piastres = $25 gold

The number and tonnage of vessels which passed through the canal in each of the five years, 1870 to 1874, were as follows:

YEAR.	VESSELS.	TONNAGE.
1870,	491	436,618
1871,	761	761,875
1872,	1082	1,439,169
1873,	1171	2,085,270
1874,	1264	2,423,672

Egypt had, on the 1st of January, 1875, a railway system of a total length of 955 English miles, open for traffic, with 502 miles under construction. With the exception of a short line of about 5 miles, all of the Egyptian railways are State property.

The telegraphs of Egypt were, at the commencement of 1875, of a total length of 4094 miles, the length of wires being 8690 miles. The whole of the telegraphs are State property.

Commission from EGYPT to the International Exhibition:

HIS HIGHNESS, PRINCE MOHAMMED TAWFIC PACHA, President.
HIS EXCELLENCY, RAGHIB PACHA, Minister of Commerce, Vice-President.
H. BRUGSCH BEY, Commissioner-General.

Commissioners.

GENERAL STONE.
M. MAHMOUD BEY, Astronomer.
M. MARIETTE BEY, Director of the Museums of Antiquities.
M. GASTINEL BEY, Professor in the Medical School.
M. ROGERS, Director in the Ministry of Public Instruction.
M. ACTON, Chief of Division, Ministry of Commerce
M. BAUDRY, Architect.
M. DELCHEVALERIE, Attaché.

Resident Members in Philadelphia.

H. BRUGSCH BEY, Commissioner-General.
E. BRUGSCH, Chief of Transportation and Installation.
A. BEHMERSD, Attaché. Secretary.
EDWARD ELIAS, Secretary and Interpreter.
M. DANINOS, Attaché for Special Mission.

TUNIS.

TUNIS, a country of Africa, and one of the Barbary States, is bounded on the north by the Mediterranean, on the west by Algeria, on the south by the Desert, and on the east by Tripoli and the Mediterranean. Its greatest length from north to south is about 440 miles; its average breadth, 160; area, upwards of 75,000 square miles; population, according to latest authorities, 1,200,000. Tunis is traversed by branches of the great Atlas range, which, in fact, has its proper termination here. The northern coast is rocky and steep, with numerous bays, of which the largest is the Gulf of Tunis; and two of its promontories, Capes Blanco (Ras-el-Abid) and Bon, are the most northern in Africa. The eastern coast, on the other hand, is flat, sandy, and infertile, like that of Tripoli, but has two large gulfs, Hammamet and Cabes. The southern part of Tunis belongs to the desert steppe known as Belud-el-Jerid. There is only one fresh water lake of any consequence, that of Biserta or Bensart, near the north coast. The brooks and torrents of Tunis either lose themselves in the sand, or find their way to the sea after a short course. None are navigable. The longest is the Mejerdah, which flows in a generally northeastern direction into the Gulf of Tunis. Other streams are the Ved-el-Milianah and the Ved-el-Kebir. There are several mineral springs in the country. The climate of Tunis is fine, and the soil exceedingly fertile, so that, in spite of a very poor knowledge of agriculture, wheat, barley, maize, dhurra, pulse, olives, oranges, figs, grapes, pomegranates, almonds, and dates are abundantly produced. The culture of oil is more attended to, and is very lucrative. Great herds of cattle are fed on the plains; the sheep are famous for their wool; and the horses and dromedaries are no less celebrated. The chief mineral products are sea-salt, saltpetre, lead ore, and quicksilver. In the vicinity of the sea-coasts, considerable manufacturing and trading industry is manifested, more particularly in the cities of Tunis and Susa. Wool, olive oil, wax, honey, soap, hides, coral, sponges, dates, wheat, and barley are the principal exports. Cloth, leather, silks, muslins, spices, cochineal, and arms are transported by means of caravans to the interior of Africa, whence in exchange are brought for exportation to European and other countries, senna, gums, ostrich feathers, gold, and ivory. Total exports in 1874, valued at 28,815,358 francs; imports, 25,193,785 francs. During the same year the entries at the port of Tunis (Goulette) were 779 vessels, 116,927 tons burthen; departures, 768, of 108,031 tons burthen.

The Bey of Tunis receives his investiture from Constantinople; without the Sultan's authority he can neither declare war, conclude peace, nor cede territory; the Sultan's name must appear on all the coinage; the army must be at the disposal of the Sublime Porte. In internal matters the power of the Bey remains absolute.

The Tunisian army comprises about 4000 regulars, 5000 Karouglis (descendants of the Turkish janissaries), 5000 Zouaves (infantry), and 1500 spahis (cavalry). In time of war the irregular cavalry can be increased to about 3000. The navy consists of two vessels, carrying 10 guns, and crews aggregating 250 men. The merchant navy comprises 300 vessels, ranging from 10 to 150 tons burthen.

There are about forty miles of railways in operation. There is at Tunis, a French, and also an Italian post office.

French telegraph lines connect the city of Tunis with various towns within the borders of the regency, as well as with Algiers and Europe.

Commission from TUNIS to the International Exhibition:

HIS EXCELLENCY SIDI HEUSSEIN, General of Division, Minister of Instruction and Public Works, President.

G. H. HEAP, U. S. Consul, Resident Commissioner.

ORANGE FREE STATE.

THE republic of the Orange Free State is situated on the northeast boundary of Cape Colony, and is bounded as follows: On the west and northwest by the territory claimed for the chief, Nicholas Waterboer, under the name of Griqualand West, and by Betchuanaland, respectively, on the north and northeast by the Transvaal republic, on the east by the colony of Natal, and on the south by British Basutoland, the Native Reserve Lands, and the Cape Colonial divisions of Albert and Colesberg.

Its area is roughly taken to be about 70,000 square miles, but no accurate computation has hitherto been made, and the probability is that the actual extent will be found considerably greater.

The country consists of extensive undulating plains, which slope from the great Watershed, northward and westward, respectively, to the Vaal and Orange rivers, and is intersected at varying intervals by the Wilge, Rhenoster, Valsch, Vet, and Riet rivers, all of which empty their waters into the Vaal river, and the Caledon river, which empties into the Orange river. The courses of the large rivers are extremely tortuous and hollow, their banks being for the greater part very precipitous, and generally lined with water-willow, mimosa, and other trees indigenous to this country. The streams are usually fordable; during the rainy season, however, they become swollen and impassable.

The Orange Free State is, for the greater part, a grazing country, and though agriculture is everywhere attended to on a larger or smaller scale, according to the natural capabilities of the farms, still it is chiefly in the southern and eastern districts that it is carried on as the principal source of production, and it is almost exclusively from the districts of Rouxville, Lady Brand, Winburg, Bethlehem, and Harrismith, that grain is brought into the markets of the other districts.

Neither is it altogether without mineral wealth, as diamonds, rubies, and other precious stones have been discovered in various parts of the country. Coal also of a very good quality, and in paying quantities, has been found in the Winburg district, as well as on farms in the Lady Brand and Harrismith districts.

In the early days of this republic the distribution of animal life was a subject of great interest, from the fact of the immense variety of wild animals inhabiting the country. Even now the lion still frequents some sections of it. But, owing to the advance of civilization and human industry, all the larger animals, as the elephant, rhinoceros, hippopotamus, and giraffe, have retreated far away. Upon its vast undulating plains, however, a large and splendid variety of the antelope tribe roams in countless numbers. The country being favorable for the rearing of horses, cattle, and wooled sheep, the number of the latter contained therein may be estimated by millions.

Birds abound in great variety, particularly those of the larger kinds, among which might be enumerated the ostrich, eagle, vulture, pelican, hawk, and various species of crane.

The staple articles of export from the Orange Free State are wool and skins, and of late years diamonds and other precious stones, while owing to the mining population in the disputed territories along the Vaal river, a large trade in grain and other agricultural produce has been productive of great wealth to the country.

From the same cause, although more indirectly, trade in all articles of import, such as ironware implements, and manufactures in woolen, cotton, and silk goods, and articles for consumption, either as necessaries or luxuries, has received a great stimulus, and the commercial community is to all appearance in a healthy and prosperous condition.

The average height of the Orange Free State above the level of the sea is about 5000 feet, and the climate is generally salubrious. The winter here is cold but dry, the summer usually warm and moist, though droughts are sometimes experienced in the summer months. The air, however, is healthy and dry, as a rule, and this is particularly felt at Bloemfontein and its vicinity; consequently numbers of invalids suffering from pulmonary affections resort to Bloemfontein, and experience much benefit from a residence is this part of the country.

In other respects it has been noticed that the changes of the seasons are to a greater or less degree, according to their duration, accompanied by a greater liability to colds and fevers, generally of a typhoid type, and inflammatory affections, especially amongst children.

The government of the Orange Free State is republican, and its constitution vests the legislative powers in the Volksraad, the members of which are elected by their constituents for four consecutive years. The whole number of representatives (there being one for each chief town of a district, and one for each field cornetcy) is fifty-two. Of this number, the half retire by rotation every two years, and a new election takes place to fill up the vacancies.

The educational department of the country is only now receiving that vital attention which a subject of so vast importance to any country ought to have; and the legislature has only of late years been impressed with the absolute necessity of placing this department on the best possible footing. Accordingly, a fund is gradually being raised for educational purposes, which in 1876 will place at the disposal of the government an amount of £56,000.

Meantime, in accordance with an order made in 1872, an inspector of education has been appointed, who has already entered upon the task of remodeling the whole educational system. It is only right, nevertheless, to state that a government allowance of £90 a year has for years past been given to each district town, on condition of its subscribing at least one-half more, and attempts to establish good schools have everywhere been made by the district school committees, comprising the Landdrost, Dutch Reformed Church, and three elected members, with varying success in some places, but in others only to meet with failure, which is principally to be attributed to the defective system hitherto pursued.

The pricipal support hitherto afforded by the government consists in the liberal allowances made for the salaries of teachers in the Grey College; but owing to the short time that has elapsed since the arrival of one of them, and various other circumstances beyond the control of the government, the desired results are still to be looked for. Very praiseworthy efforts have also been made on behalf of education by the Anglican Church, in schools established at Bloemfontein and at Smithfield, and this latter has already shown very satisfactory results.

The revenue of the State, for the year 1874–75, was £190,958; the expenditure, during the same year, £98,242.

The government lands of the Orange Free State are still very considerable, though as nought compared with their original size, owing to the sales of farms which have been held from time to time. The value of fixed property of all kinds has increased greatly within the last few years. Even in the districts of Harrismith and Kroonstad, where land formerly was almost valueless, farms are now eagerly sought after, and change hands at very high rates. The average price of land throughout the whole State may now be fixed at 10*s.* per morgen. A rough estimate fixes the number of farms throughout the country as between 6000 and 7000. Fixed property changes ownership by registration. The population of the State is estimated at about 75,000 white, and 25,000 colored or native.

Commission from ORANGE FREE STATE to the International Exhibition:
CHARLES W. RILEY, Consul-General.

LUXEMBOURG.

THE Grand Duchy of Luxembourg is connected with the Netherlands in the person of the sovereign, but has a constitution and administration of its own. The King of Holland, as Grand Duke, appoints a deputy-governor. Dutch Luxembourg was a part of the Germanic Confederation from its formation, in 1815, till its dissolution, in 1866. In 1867 its neutrality was guaranteed by the great powers. Its present constitution dates from 1868. The chamber of deputies consists of 40 members chosen for 6 years by direct vote in the electoral districts. Area, 990 Eng. sq. miles. Population (1871) 197,528, the most of whom are engaged in agriculture. The chief products are wine, corn, hops, hemp, and flax. In the eastern districts there are iron mines, and lime and slate quarries. The majority of the inhabitants are Walloons, the rest mainly Germans. The capital is Luxembourg. By the law of 1868, the army consists of 13 officers, 500 under-officers and privates, besides 110 gensdarmes.

CHINA.

THE following table gives the area and population of the various divisions comprising the Chinese empire:

	AREA IN ENGLISH SQ. MILES.	POPULATION.
China proper,	1,534,953	405,213,152
DEPENDENCIES.		
Mandchuria,	362,313	3,000,000
Mongolia,	1,288,035	2,000,000
Thibet,	643,734	6,000,000
Corea,	90,300	8,000,000
Lieukhien Islands,	2,310	
Liaotong,	2,982	1,000,000
Total,	3,924,727	425,213,152

China proper is included between 18° 15′ and 43° 15′ north latitude and 98° and 122° 40′ east longitude. Its coast-line exceeds 2500 miles, and its land frontier 4400 miles. It is divided into eighteen provinces, and includes the two large islands of Formosa and Hainan. The administration of the empire is parceled out into separate governments, corresponding with the provincial divisions, each of which has a complete organization, exchequer, army, and naval force of its own. Besides providing for the cost of its own administration, each province is required to remit annually to Peking a certain portion of its revenue to meet the expenses of the court, central government, and garrison of Peking, as well as to provide for exigencies arising in other provinces, and for the requirements of the garrisons in Turkestan, Mongolia, and Mandchuria, which are administered by military governors.

According to the latest reports, the imperial army comprises a total of 850,000 men, including 678 companies of Tartar troops, 211 companies of Mongols, and native Chinese infantry, a kind of militia, numbering 120,000 men. The native soldiers do not live in barracks, but in their own houses, mostly pursuing some civil occupation.

The Chinese are pre-eminent for their indefatigable industry. Of the immense

territory peopled by them, there is scarcely a rood of arable ground that is not assiduously cultivated. Unfortunately, however, their husbandry is, to a great extent, nullified by the rude and ill-adapted implements employed. Therefore scientific agriculture is but slightly advanced in China, although the Chinese system of land irrigation is superior to that of any other people. As a manufacturing nation the Chinese are highly distinguished; porcelain originated entirely with them, and the art of spinning silk they also gave to the West. The lacquered ware produced in China, though very beautiful, must be considered inferior to that of Japan, but in the more minute arts of carving and inlaying, the Chinese have no superiors. Their ivory and mother of pearl industry is too well known to need description. Gunpowder, though a Chinese invention, is little manufactured, and that little of indifferent quality. Paper is ingeniously made of various materials; it is, in general, thin, silky, and highly absorbent of ink.

Chinese trade has the peculiarity of being, for the most part, internal, the country supplying most articles of subsistence or luxury, and is carried on by means of canal and river navigation. The principal exports are tea, porcelain, raw and spun silk, sugar, rhubarb, embroidery, lacquered wares, and carved articles of domestic ornament. The imports consist mainly of cotton and woolen goods, opium, raw cotton, furs, and edible birds' nests, which form an expensive luxury, and are held in high esteem. The total value of commodities exported from China, in 1865, reached the figure of $173,609,085, as against imports of $238,504,520. Of the exports, tea is the chief, showing a total quantity of 223,679,182 pounds shipped. The export of raw silk for the same year aggregated 40,726 bales, and of cotton, 35,855,792 pounds.

The grand canal, about 700 miles in length, has greatly facilitated the internal trade of the country. China is traversed in all directions by 20,000 imperial roads, most of which are badly kept. There is a postal service, but of a very rude kind.

Education, as the high road to official employment, to rank, wealth, and influence, is eagerly sought by all classes. Literary proficiency commands everywhere respect and consideration, and primary instruction penetrates to the remotest villages. Self-supporting day-schools are universal throughout the country, and the office of teacher is followed by a great number of the *literati*. Government provides state examiners, but does not otherwise assist in the education of the people.

The Chinese executive system is based on those noteworthy competetive examinations which are intended to sift out from the millions of educated Chinese the best and ablest for the public service.

Commission for CHINA to the International Exhibition:

ROBERT HART, ESQ., Inspector General of Imperial Maritime Customs.
G. DETRING, ESQ., Commissioner of Customs.
E. B. DREW, ESQ., Commissioner of Customs.
W. SCOTT FITZ, ESQ.
H. SEYMOUR GEARY, ESQ.

Resident Commissioners in Philadelphia.

JAMES H. HART, ESQ., Commissioner of Customs.
ALFRED HUBER, ESQ., Commissioner of Customs.
J. L. HAMMOND, ESQ., Commissioner of Customs.
EDWARD CUNNINGHAM, ESQ.
W. W. PARKIN, ESQ.
F. P. KNIGHT, ESQ.
W. NOYES MOREHOUSE, ESQ., Imperial Maritime Customs, Secretary.

JAPAN.

JAPAN proper comprehends four large islands, viz.: Niphon (the Japanese mainland), Sikok or Sikopf, Kiusiu, and Yesso, and extends from 31° to 45° 30′ north latitude. The empire of Japan includes about 3800 small islands and islets besides the four larger ones, and is situated between 26° and 52° north latitude, and 128° and 151° east longitude. It is bounded on the north by the Sea of Okotsk, on the east by the north Pacific Ocean, on the south by the eastern Sea of China, and on the west by the Sea of Japan. The islands of Japan appear to be of volcanic origin, and that part of the Pacific on which they rest is still intensely affected by volcanic action. Earthquakes occur very frequently in Japan, although certain parts of the country are exempt. Japan has been called the land of mountains: but though these are very numerous, and many of them volcanic, they are of moderate elevation, and rarely attain the limits of perpetual snow. The country generally is of moderate elevation, with fertile valleys, picturesque landscapes, and a coast indented with magnificent harbors; the soil is productive, rich in mineral wealth, and teeming with every variety of agricultural produce. Springs, lakes, and rivers are numerous; but the last, being sand-choked, are valuable chiefly for the purposes of irrigation.

Our knowledge of the climate of Japan is yearly increasing. June, July, and August are the months of rain, which sometimes descends in unceasing torrents. The months of October and November are the pleasantest and most genial of the twelve, when fine weather is enjoyed without the scorching heat of summer. The summers are very hot, and the winters in the northern parts almost Siberian; the thermometer rising to 96° in the shade in the former, and sinking to 18° below zero in the latter season. Alcock says: "The thermometer in the shade (during the summer) ranges from 70° to 85°, and averages 80° between the morning and the evening, while it is sometimes below 70° at night." Hurricanes and waterspouts are frequent; dense fogs hide the sun, sometimes for four or five days together; and about the change of the monsoons, typhoons and equinoctial gales frequently sweep the Japanese seas.

The following figures are furnished by the Japanese commission:

Area,	23,740 ris (the ri equals 2¾ miles).
Population.—Male,	16,891,729
Female,	16,408,946
Total,	33,300,675
Imports,	22,841,166.93 yens.*
Exports,	18,367,259.29 "
Revenue,	81,552,294. "
Expenditure,	79,881,820. "
Army,	42,073 men

The navy consists of 20 vessels, manned by 3757 men.

The country is rich in minerals, gold, silver, iron, sulphur, and especially copper abound. There are also large quantities of coal. Amongst the most remarkable of its vegetable productions is the camphor tree, the varnish or lacquer tree, the paper mulberry tree, the vegetable wax tree, the tea shrub, the tobacco plant, and the rice plant. The principal manufactures are those of silk and cotton. The internal trade is very extensive, and rigid regulations are in force to protect and encourage home industry. In the mechanical arts the Japanese have attained great excellence, especially in metallurgy, and in the manufacture of porcelain, lacquer ware, and silk fabrics. In some of these departments works are produced so exquisite in design and execution, as to more than rival the best products of Europe

* The yen equals 99.7 cents gold.

The Japanese government is organized on a basis which is partly European. The Mikado is supreme in temporal and spiritual matters, but the work of government is carried on by the Great Council, which is divided into three sections, denominated Centre, Right, and Left. The Centre is composed of the Prime Minister, Vice Prime Minister, and five advisers. The left is made up exclusively of the Council of State, the functions of which are analogous to those of the French Conseil d'Etat, so far as the preparation and discussion of laws is concerned. The Right includes all the ministers and vice-ministers of eight departments into which the administration is divided. The ministers, either individually or united in a Cabinet, decide all ordinary questions; but points of real importance are reserved for the Great Council, presided over by the Mikado. The local administration in the provinces is in the hands of prefects, one of them residing in each of the 75 districts into which Japan is divided.

Education is very general in Japan. In 1871 a Ministry of Instruction was created, and as a result of its efforts, public primary schools are increasing rapidly, especially in the towns; but the movement is far more marked in the western provinces and on the coast than in the interior. Private schools are more abundant still, and any person being at liberty to establish them,—subject to a permission, which is always given,—they spring up with facility wherever wanted. In order to facilitate the acquirement of foreign languages, the government has engaged European professors, and has also sent, at public expense, a large number of students to America and Europe. The first line of railway, from Yokahama to Yeddo, 17 miles long, was opened for traffic on the 12th of June 1875, and other lines were in progress at that date.

The post office carried 17,095,842 letters in 1874. The number of post offices at that date was 3244.

Commission from the JAPANESE EMPIRE to the International Exhibition:

HIS EXCELLENCY OKUBO TOSHIMICHI, Minister of the Interior and Privy Counsellor, President.

HIS EXCELLENCY LIEUTENANT-GENERAL SAIGO TSUKUMICHI, Imperial Army, Vice-President.

MR. KAWASE HIDEHARU, Vice-President Bureau of Agriculture and Industry, Commissioner-General.

MR. TANAKA YOSHIO, Ministry of the Interior.
MR. SEKIZAWA AKEKIO, Bureau of Agriculture and Industry.
MR. YAMATAKA NOBUAKIRA, Bureau of Agriculture and Industry.
MR. SHIODA MASASHI, Bureau of Agriculture and Industry.
MR. SUZUKI TOSHINOBU, Bureau of Agriculture and Industry.
MR. SUGIYAMA KADZUNARI, Bureau of Agriculture and Industry.
MR. HIDAKA LIRO, Lieutenant Imperial Army.
MR. AMORI KORENAKA, Bureau of Agriculture and Industry.
MR. ISHIHARA TOYOYASU, Bureau of Agriculture and Industry.
MR. ISHIDA TAMETAKE, Bureau of Agriculture and Industry.
MR. YAMAO TSUNETARO, Bureau of Agriculture and Industry.
MR. KUBO HIROMICHI, Bureau of Agriculture and Industry.
MR. FUKUI MAKOTO, Bureau of Agriculture and Industry.
MR. SHIBATA HIROSHI, Bureau of Agriculture and Industry.
MR. MAKIYAMA KOHEI, Bureau of Agriculture and Industry.
MR. ASMI TCHUGA, Bureau of Agriculture and Industry.
MR. ISHII YOSHITAKA, Bureau of Agriculture and Industry.
MR. ASAHI SUSUMU, Bureau of Agriculture and Industry.
MR. YOSHIO NAGAMASA, Bureau of Agriculture and Industry.
MR. SASASE MOTOAKIRA, Bureau of Agriculture and Industry.
MR. TSUCHIYA SHIGENAO, Attache.
MR. YOSHIKAWA NISUKE, Attache.
MR. AKUSAWA SUSUMU, Attache.
MR. SANDA TADASHI.
MR. TAWARA WAKICHIRO, Attache.

HAWAII.

THE islands forming the kingdom of Hawaii are eight in number, exclusive of one or two small islets. The chain runs from southeast to northwest, and lies in the middle of the Pacific Ocean, in latitude 19°—22° north, and longitude 155°—160° west. Area 7400 square miles; population (1872), 56,897, of whom 2539 were Europeans. The names, with the areas, of the respective islands are: Hawaii (formerly Oghyhee), 4210 square miles; Maui, 760; Oahu, 600; Kaui, 590; Molokai, 270; Lanai, 150; Niihau, 97; and Kahoolawe, 65 square miles.

Situated near the middle of the Pacific Ocean, about half the distance from San Francisco in North America that they are from Melbourne in Australia and Canton in China, the Sandwich Islands form an oasis in the middle of a wide ocean waste, and offer convenient stations for the refreshment and repair of the merchantmen and whalers that traverse the Pacific. They are of volcanic origin, and contain the largest volcanoes, both active and quiescent, in the world. The most prominent physical features of the group are the two lofty mountain peaks of Hawaii, Mauna Kea and Mauna Loa, each of which is 14,000 feet in height, or within 1860 feet of the loftiest of the Alps. Besides those two chief peaks, which stand apart from each other, and one of which is covered with perpetual snow, the island is traversed by other mountains, which give it a rugged and picturesque outline, and in some cases front the sea in bold, perpendicular precipices, from 1000 to 2000 feet in height. In general, the islands are lofty—the small islet of Lehua is 109 feet high, and the upland regions of Kaui are, on an average, 4000 feet above sea level. Within the coral reefs, which, in single, and more rarely in double ridges, skirt portions of the coasts, sandy shores, leading up to rich pasture-lands, and occasionally to productive valleys, are frequently seen. Everywhere, however, the configuration of the surface betrays the volcanic origin of the islands. Extinct volcanoes occur in most of the islands. Kilauea, on the Mauna Loa mountain in Hawaii, the largest active volcano in the world, has an oval-shaped crater nine miles in circumference, and is 6000 feet above sea level. In the centre of this immense caldron is a red sea of lava, always in a state of fusion. At intervals, the lava is thrown to a great height, and rolls in rivers down the mountain sides. On Maui, the crater of Mauna Haleakala (House of the Sun), by far the largest known, is from 25 to 30 miles in circumference, from 2000 to 3000 feet deep, and stands 10,000 feet above sea level. Within this huge pit, about 16 basins of old volcanoes, whose ridges formed concentric circles, have been counted. Good harbors are few. The chief is that of Honolulu, in Oahu, with 22½ feet of water in its shallowest parts. On the same island is Puuloa, an immense basin, with 12 feet of water on the bar at low tides. During the prevalence of the trade wind, which blows southwest for about nine months of the year, the south shores of the islands afford safe anchorage almost everywhere.

At Honolulu, the extremes of temperature in the shade during the 12 months are 90° and 50°, and the diurnal range is 12°. Rains brought by the northeast trade-wind are frequent on the mountains; but on the leeward side of the islands little rain falls, and the sun is rarely obscured by the clouds. The soil, the constituent parts of which are mainly scoriæ, decomposed lava, and sand, is generally thin and poor. This, however, is not universally the case. At the bases of the mountains and in the valleys, where abrasion, disintegration, and the accumulation of vegeta-

ble mould have gone on for ages, there are extensive tracts as fertile as they are beautiful. The islands produce fine pasturage in abundance, and large herds are bred and fattened to supply meat to the whalers and merchant ships. The upland slopes of the mountains are clothed with dense forests; and lower down are grassy plains and sugar and coffee plantations. Basalt, compact lava, coral rock, and sandstone are used for building purposes. No metals occur. Several of the islands, especially Hawaii and Kaui, are well supplied with rivers, which, from the size and conformation of the group, are necessarily small, but afford great facilities for irrigation. Vast numbers of semi-wild horses roam the islands, and while they consume the pasturage and break down the fences, are of little use. The indigenous fauna is small, and consists mainly of swine, dogs, rats, a bat that flies by day, birds of beautiful plumage, but for the most part songless. Among the indigenous trees and plants are the sugar-cane, banana, plantain, cocoanut, candle-nut, various palms, the taro, a succulent root which formed the staple of the food of the natives, and is still generally used, the cloth-plant, and the *ti*, the roots of which were baked and eaten, while the leaves were used for thatching huts. Cattle and other useful and foreign animals and plants were introduced by Vancouver and other navigators. In 1860 there were 30,000 mules and semi-wild horses in the kingdom.

The government of Hawaii is a constitutional monarchy.

The public revenue during the biennial period ending March 31, 1874, was 1,136,524 dollars; the public expenditure, 1,192,512 dollars. The public debt, at the same date, 355,050 dollars.

The principal exports during the year 1874 were: Sugar, 24,567,000 pounds; rice, 1,188,000 pounds; coffee, 75,000 pounds; pulu, 418,000 pounds; tallow, 126,000 pounds; wool, 400,000 pounds; hides, 94,575. Total value, 1,839,000 dollars. The imports during the same year amounted in value to 1,310,000 dollars.

Of 115 vessels that entered the port of Honolulu during 1874, 64 were American, 30 English, 15 Hawaiian, etc.

Commission from THE HAWAIIAN ISLANDS to the International Exhibition:

W. L. MOEHONUA, Minister of the Interior and President of the Commission.
HON. S. G. WILDER, Privy Councillor of State.
HON. J. U. KAWAINUI, Privy Councillor of State.
ELISHA H. ALLEN, JR., Hawaiian Consul General, New York.
H. R. HITCHCOCK, Inspector General of Schools, Hawaiian Islands, and Special Agent of Hawaii on Centennial Commission.
REV. SAMUEL C. DAMAN.
MR. WILLIAM TUFTS BRIGHAM.

BRAZIL.

BRAZIL is the most extensive state of South America. Towards the interior, it borders on all the other states of that continent except Chili and Buenos Ayres—on Uruguay, the Argentine Confederation, Paraguay, Bolivia, Peru, Ecuador, New Granada, Venezuela, and English, Dutch, and French Guiana; while its seaboard, beginning about 200 miles to the north of the Amazon, and reaching to within the same distance of the Plata, projects into the Atlantic fully 1000 miles to the east of the direct line between its two extremes. This immense country extends between latitude 5° 10′ north and 46° 10′ south, and between longitude 35° and 70° west, being, in round numbers, 2600 miles long and 2500 broad. The area, according to official accounts, is 3,100,000 square miles, with a population, in 1872, of 12,000,000. including 1,683,684 slaves, and consisting of aboriginals, Africans, and Europeans, the first being proportionately fewer than in most parts of America.

Brazil differs in many respects from most of the other divisions of the new continent. It knows nothing of the volcanoes and earthquakes of the Pacific coast; with winds blowing constantly from the Atlantic Ocean, it is exempted from those droughts which are always blighting one or other of the slopes of the Andes, the remoter slope in Peru and Chili, and the nearer in Buenos Ayres and Patagonia; its mines, again, are as famous for gold and diamonds as those of the western Cordilleras for silver. In its hydrography, Brazil contrasts unfavorably with the other divisions. While the Amazon and the Plata, the Mississippi and the St. Lawrence—not to mention countless rivers of inferior magnitude on both shores—are for the most part practicable almost to their sources, the streams of Brazil, with the exception of the Amazon, are mostly impeded throughout by cataracts and shallows, thus counterbalancing, as it were, its matchless seaward facilities by the deficiencies of its inland communications. Further, the most navigable of these streams, instead of entering the open sea, mingle their waters with those of the Plata or of the Amazon—the Parana and the Uruguay joining the former, and the Madeira, the Tapojos, the Zingu, and the Tocantins, the latter; and even among those that do send their tribute at once to the ocean, a similar direction is sometimes impressed by the dividing ridges—the San Francisco, for instance, by far the largest of them, running to the northward parallel with the southeast coast through 11° of latitude, and leaving only 4° of longitude for its remaining course to the Atlantic. These hydrographic peculiarities must be the more strongly felt, inasmuch as a humid surface and a luxuriant vegetation conspire to render ordinary roads all but impossible.

Among the mineral treasures, besides gold and diamonds, already mentioned, iron of superior quality is abundant; and salt, also, is extensively produced in saline marshes by the alternate processes, according to the season, of inundation and evaporation. The productions of the soil are, of course, equally various and rich. The cotton is naturally excellent, and the tea-plant of China has been introduced, though hitherto with indifferent success. The exports necessarily vary in different sections of the country. From the north, they are coffee, cotton, cocoa, sugar, and tobacco; from the south, hides, tallow, horns, etc.; and from the middle, drugs, diamonds, gold dust, dyes, rice, manioc, tapioca, spirits, and rosewood.

The total value of the imports into Brazil, including bullion and specie, averaged about $91,000,000 in the five years 1869—1873, and that of the exports, during the same period, likewise including bullion and specie, about $110,000,000.

The executive authority is vested in the Emperor, who, besides being aided by a council of state, must act through responsible ministers. The legislature consists of two chambers, which sit four months every year. Both the deputies and the senators, who must have annual incomes respectively of 800 milrees and 1600, are indirectly elected by voters who must possess 200 milrees per annum—the former for four years, and the latter for life. The senate, however, appears to represent the crown as well as the people, inasmuch as each constituency merely nominates three individuals for his majesty's choice of one. Justices of the peace, also, are appointed by the respective communities; and in the courts generally, whether civil or criminal, there prevails trial by jury.

The budget for the year ending June 30th, 1876, calculates the receipts at 107,133,070 milrees, and the expenditures at 102,634,053 milrees.* The public debt, on the 1st of April, 1875, was, including paper money, 664,739,395 milrees.

In a vote passed by the House of Congress, June, 1869, the strength of the standing army was fixed at 30,000 on the peace footing, and at 60,000 on the war footing. There were actually under arms, according to official reports, at the end of April, 1874, 28,933 troops, of which number 2397 were in garrison in Paraguay.

The imperial navy consisted, in 1875, of 61 men-of-war, carrying 230 guns, and crews aggregating 4136.

The empire possessed, at the end of 1873, railways of a total length of 714 English miles, open for traffic. There were railways of an aggregate length of 397 miles in course of construction at the end of June, 1874. There were, at the beginning of the year 1874, telegraph lines to the extent of 3375 miles. The number of offices was 74 at the same date. The post office carried 12,251,000 letters in the year 1873, of which number 6,548,000 came from or to Rio de Janeiro, the capital.

Commission from BRAZIL to the International Exhibition:

HIS HIGHNESS, GASTON D'ORLEANS, Conde d' Eu, Marshal of the Army, President.
VISCOUNT DE JAGUARY, 1st Vice-President.
VISCOUNT DE BONN-RETIRO, 2d Vice-President.
VISCOUNT DE SOUZA FRANCO.
JOAQUIN ANTONIO DE AZEVEDO.
HIS EXCELLENCY, A. P. DE CARVALHO BORGES, Envoy Extraordinary and Minister Plenipotentiary of His Majesty the Emperor of Brazil.
FELLIPE LOPES NETTO, Vice-President.
DR. JOSE DE SALDANHA.
DR. NICOLAS JOAQUIM MOREIRO.
PEDRO PAES LEME.
CAPT. LUIZ DE SALDANHA, Naval Attaché.
DR. J. M. DE SILVA COUTINHA.
MR. B. F. TORREAS DE BANOS, Secretary of Legation.

* The milreis = 1000 reis, 54½ cents.

ARGENTINE REPUBLIC.

THE Argentine Republic—the confederation of the Rio de la Plata, or River of Silver, South America—is a federal union of fourteen provinces and three large territories, covering an almost unbroken plain of 1,200,000 square miles, with a population of about 2,000,000 inhabitants. It extends from 22° south latitude to the straits of Magellan, and from 59° west longitude to the Andes.

Each province has its own legislature, courts of justice, and political government; but civil, penal, and commercial laws are common to all the provinces, codes of such laws having been issued by the congress of the confederation.

The President of the republic is elected for a term of six years by the representatives of the provinces, and is not eligible for re-election. The Vice-president, elected in the same manner, fills the office of chairman of the Senate, but has otherwise no political power. The President is commander-in-chief of the troops, and appoints to all civil, military, and judicial offices; but he and his ministers are responsible for their acts, and liable to impeachment before the Senate by accusation of the House of Representatives. Legislative power is vested in a Senate, of members elected by the provincial legislatures, two from each province, and a House of Representatives, elected by the people, and apportioned to each province according to population. The senators hold their office for nine years, and the representatives for three.

The chief exports of the country are wool, hides, salt beef, and tallow; but its resources embrace all the products of the tropical and temperate zones, as may be seen by the catalogue of its exhibits.

The farming stock of the republic is estimated at 15,000,000 horned cattle, 4,000,000 horses, and 80,000,000 sheep, whose aggregate value cannot fall short of $200,000,000, gold, yielding about $50,000,000 of export produce per annum.

The total trade may be estimated at $100,000,000 per annum. In 1874 the imports amounted to $55,961,117, against over $71,000,000 in the previous year. The exports amounted to $43,104,712, against $45,869,314 in 1873. The decrease in imports and exports wa. caused by a severe commercial crisis, from which the country is just recovering.

The annual revenue amounted to $20,217,231 in 1873, but the crisis reduced it in 1874 to $16,090,661, or over $2,000,000 less than in 1872, and nearly $4,500,000 less than in 1873. The general expenditures in 1874 reached the sum of $28,596,006. The total debt in January, 1875, was $68,416,043.

The regular army numbers 10,807 men, divided as follows: cavalry 4800, infantry 4400, artillery 400, and 1173 special troops. The navy is composed of 26 vessels, among them 2 ironclads and 6 gunboats, with crews amounting in all to 900.

The capital of the republic is provisionally situated at the city of Buenos Ayres, capital of the province of the same name.

(The statistics given above have been furnished by the commission of the Argentine Republic.)

A network of railways, constructed mainly at the expense of the State, has been in progress for several years. At the end of the year 1873 there were 664 miles open for traffic, and 642 miles of State railways in course of construction. There were

besides, at the end of 1873, railways of a total length of 1997 miles, sanctioned by the government, including an international line from Buenos Ayres to Chili, of 894 miles.

At the end of September, 1873, there were 4170 miles of telegraph lines in operation. The total length of telegraph wires at the same date was 8267 miles. The number of telegraphic dispatches during the same year was 170,079.

The post office, in the year 1873, carried 1,493,700 parcels and packets, and 4,574,188 letters. The number of letters carried doubled in the five years from 1869 to 1873.

Commission from the ARGENTINE REPUBLIC to the International Exhibition:

CARLOS CARRANZA, President.
EDWARD SHIPPEN, Vice-President.
EDW. T. DAVISON, Treasurer, Consul-General.
DIEGO DE CASTRO, Secretary.
E. MARA DAVISON, Deputy Member.

Central Committee.

ERNESTO OLLENDORF, President.
JULIO VICTORICA, Secretary.

EDUARDO OLIVERA,
ONESIMO LEGUIZAMON,
DIEGO DE LA FUENTE,
LINO PALCOIS,
RICARDO NEWTON,
LEONARDO PEREYRA,
JOSE M. JURAFDO,
EMILIO DUPORTAL.

CHILI.

CHILI lies wholly between the water-shed of the Andes and the shores of the Pacific, stretching coastwise from Bolivia to Patagonia, in latitude 25° 30′ to 43° 20′ south, and longitude 69° to 74° west, having an extreme length of about 1240 miles and an average breadth of fully 120. Within these limits, however, lies the virtually independent Araucania, comprising most of the mainland to the left of the Biobio, while the southern portion is confined chiefly to Chiloe and its archipelago. Chili is divided into thirteen provinces, of which, including certain outlying dependencies in Patagonia, the aggregate area has been officially stated at nearly 140,000 square miles, and the population in 1874 at 2,068,447. Chiloe, the insular province of Chili, is separated from the rest of the republic, or rather from Patagonia, by the Gulf of Ancud, extending in south latitude from 41° 40′ to 43° 20′, and in west longitude from 73° to 74°. The province, which, in 1874, numbered 64,536 inhabitants, contains, in addition to Chili proper, about 60 islets, of which some 30 are uninhabited. The predominant rocks of Chili are crystalline and metamorphic. They form the range of the Andes, except in those districts in which active volcanoes exist, where they are covered with recent volcanic rocks. They occupy also the whole of the level ground between the mountain range and the shores of the Pacific, with the exception of a narrow stretch of palæozoic fossiliferous strata which run along the coast south from Santiago for a distance of 300 miles. The coast-line of Chili is being continually altered from the elevation of the whole country to an extent of at least 1200 miles along the Pacific shores, produced by volcanic agency.

Physically, the continental portion of the republic presents many singularities. Of all the maritime regions on the globe, it is perhaps the most isolated. On every side but the sea, and that sea very remote from the main thoroughfares of commerce, it is beset by difficulties of communication. With the lonely wilderness of Patagonia to the south, and the dreary desert of Atacama on the north, it is bounded on the east by a mountain chain which, altogether impracticable in winter, can be crossed, even in summer, only by a few passes ranging between 12,450 feet and 14,370 feet in elevation. Moreover, this strip between the Andes and the Pacific is broken into plateaus in the interior, and valleys on the coast, by two longitudinal ranges, with numerous lateral spurs; while, throughout the length and breadth, the general level gradually descends, as well to the south as to the west. In point of mere temperature, so rugged a surface, covering fully 15° of latitude, and attaining an altitude of more than four miles within about 2° of longitude, must present nearly every possible variety. Through the reciprocal action of the Andes and the prevailing winds, the rain-fall graduates itself, with something of mathematical regularity, from the parching skies of the north to the drenching clouds of the south, a graduation which, disturbed merely by the melting of the mountain snows, is, in a great measure, necessarily reflected in the condition and magnitude of the countless water-courses. Hence the rivers to the north of the Maypo, which enters the Pacific near latitude 34°, are but inconsiderable streams; while, further to the south, the Maule, the Biobio, and the Calacalla are all to some extent navigable.

From the cause last mentioned, different districts vary remarkably in their productions. To the north of the Coquimbo, about latitude 30°, is chiefly an arid

waste, redeemed, however, from being valueless by its mines; and to the south of the Biobio, about latitude 37°, timber and pasturage divide the soil between them. The intermediate centre alone is fitted for agriculture, yielding, besides maize and hemp, European grains and fruits in abundance. Notwithstanding all the varieties and vicissitudes of climate, the country may claim to be, on the whole, extremely healthy. The manufactures are earthenwares, copperwares, linens, cordage, soap, leather, and brandy; and, in addition to the wheat and metals already specified, the exports, especially from the south, embrace tallow, hides, jerked beef, and live stock.

The public debt of Chili, at the beginning of 1874, was 48,149,850 pesos (or doilars). The budget for 1875 stated the expenditures at 16,474,890, and the receipts at 16,440,000 pesos.

The army consisted, in 1874, of 3516 men, the force comprising 2000 infantry, 712 cavalry, and 804 artillery. The navy numbered 10 vessels, carrying 34 guns.

The imports, for 1874, were 38,810,000 pesos, and the exports, during the same year, were 36,510,000 pesos. The commercial navy of Chili consisted, in 1872, of 250 vessels of 58,230 tons burthen, with 2900 sailors.

In 1875 there were 991 kilometres of railway in operation; of these, 628.6 belonged to the State and 362.4 to companies.

The work of the post office, for 1873, was 5,116,797 letters and 6,233,916 newspapers, etc.

There were, at the same time, 55 telegraph offices. The length of lines was 3729 kilometres; of wires, 4909 kilometres. Number of despatches, in 1873, 265,318.

Commission from CHILI to the International Exhibition:

Resident Commissioners.

SR. DON ADOLFO YBANEZ, Envoy Extraordinary and Minister Plenipotentiary of Chili.

EDWARD SHIPPEN, ESQ., Consul and President.

DR. J. PATTERSON Burd, Secretary and Treasurer.

SR. FRANCISCO GONALEZ ERRAZURIZ, Secretary of Chilian Legation.

Special Commissioners.

SR. DON EDUARDO SEVE,
SR. RAFAEL MASEULLI,
SR. E. GERRA,
SR. LOUIS BUFFE.

Home Commission.

SR. RAFAEL LARRAIN, President.
SR. MAXIMIANO ERRAZURIZ.
SR. IGNACIO DOMEYKO.
SR. ARMANDO PHILLIPPI.
FRANCISCO SOLANO ASTA BURUAGO.
SR. RAMON BARROS.
SR. EUGENIO FIGUEORA.

PERU.

PERU is an important maritime republic in South America, bounded on the N. by Ecuador, on the W. by the Pacific, on the S. and S.E. by Bolivia, and on the E. by Brazil. It lies in lat. 3° 25′ to 21° 30′ S., and in long. 68° to 81° 20′ W. The general outline resembles a triangle, the base of which is formed by the boundary-line between Peru and Ecuador on the north. Its area is estimated at upward of 500,000 square miles, and its population at 2,500,000. The area of Peru, however, can only be given approximately, as, on the east side of the Andes and between the Amazon and the Purus, there is a wide and unexplored expanse of country, upon which both Peru and Brazil have claims which have not yet been determined. The country is 1100 miles in length, 780 miles in extreme breadth along the northern boundary, but is little more than 50 miles wide in the extreme south. Following the general direction, and not including windings, the coast-line is 1660 miles in length. The shores are in general rocky and steep ; in the south lofty cliffs rise from the sea, and in some places the water close inshore has a depth of from 70 to 80 fathoms. Farther north, however, sandy beaches occur, and in the extreme north the shores are often low and sandy and covered with brushwood. Owing to the comparative unfrequency of bays and inlets along the coast, the harbors are few and unimportant. Those of Callao (the port of Lima) and Payta afford the most secure anchorage, and the others are Trujiilo, Cañete, Pisco, Cammaná, Islay, Ilo, Arica and Inquique.

The islands on the Peruvian coast, although valuable, are extremely few in number and small in extent. In the north are the Lobos Islands; on their eastern and more sheltered sides they are covered with guano. The Chincha Islands, famous as a source of supply for guano, also form a group of three, and are situated in the Bay of Pisco, about twelve miles from the mainland, and in lat. 13° to 14° S., long. 76° and 77° W. They lie in a line running north and south, and are called the North, Middle, and South Islands, respectively. Each island presents, on the eastern side, a wall of precipitous rock, with rocky pinnacles in the centre, and with a general slope toward the western shore. The cavities and inequalities of the surface are filled with guano, and this material covers the western slopes of the islands to within a few feet of the water's edge. There is no vegetation.

The surface of Peru is divided into three distinct and well-defined tracts or belts, the climates of which are of every variety from torrid heat to arctic cold, and the productions of which range from the stunted herbage of the high mountain-slopes to the oranges and citrons, the sugar-canes and cottons, of the luxuriant tropical valleys. These three regions are the *Coast*, the *Sierra*, and the *Montaña*. The *Coast* is a narrow strip of sandy desert between the base of the Western Cordillera and the sea, and extending along the whole length of the country. This tract, varying in breadth from thirty to sixty miles, slopes to the shore with an uneven surface, marked by arid ridges from the Cordillera, and with a rapid descent.

It is, for the most part, a barren waste of sand, traversed, however, by numerous valleys of astonishing fertility, most of which are watered by streams that have their sources high on the slopes of the Cordillera. In the coast-region, properly so called, rain is unknown. This is caused by the coast of Peru being within the region of perpetual south-east trade-winds. The want of rain is compensated for, to some extent, by abundant and refreshing dews which fall during the night. The climate of the coast is modified by the cool winds. In the valleys the heat, though considerable, is not oppressive. The highest temperature observed at Lima in summer is 85°, the lowest in winter is 61° Fahr.

The *Sierra* embraces all the mountainous region between the western base of the maritime Cordillera and the eastern base of the Andes, or the Eastern Cordillera. The principal physical features of the *Sierra* are: 1. The plain of Titicaca, partly in Peru and partly in Bolivia. It is enclosed between the two main ridges of the Andes, and is said to have an area of 30,000 miles. In its centre is the great Lake Titicaca, 12,846 feet above sea-level, or 1600 feet above the loftiest mountain pass (the Col of Mont Cervin) of Europe. The lake is 115 miles long, from 30 to 60 miles broad, from 70 to 180 feet deep, and 400 miles in circumference. Its shape is irregular; it contains many islands, and several peninsulas abut upon its waters. 2. The Knot of Cuzco. The mountain-chains which girdle the plain of Titicaca trend toward the north-west, and form what is called the Knot of Cuzco. The Knot comprises six minor mountain chains, and has an area thrice larger than that of Switzerland. Here the valleys enjoy an Indian climate and are rich in tropical productions; to the north and east of the Knot extend luxuriant tropical forests, while the numberless mountain slopes are covered with waving crops of wheat, barley, and other cereals, and with potatoes, and higher up extend pasture-lands, where the vicuña and alpaca feed.

The *Montaña* or central region has an elevation of 12,000 feet above the sea-level, and forms a portion of the great central plain of South America. The virgin soil of the Montaña is of amazing fertility, while its climate, though not oppressively hot, is healthy. The forests consist of huge trees, of which some are remarkable for the beauty of their wood, others for their valuable gums and resins, and others as timber trees. A rank undergrowth of vegetation covers the country, and the trees are often chained together and festooned with parasites and closely-matted creepers. In this region, for the most part undisturbed by the voice of man, civilized or savage, animal life flourishes in endless variety, and birds of the brightest plumage flit among the foliage. Among the products which are yielded here in spontaneous abundance are the inestimable Peruvian bark, India-rubber, gum-copal, vanilla, indigo, copaiba, balsam, cinnamon, sarsaparilla, ipecacuanha, vegetable wax, etc. On the western fringe of the Montana, where there are still a few settlements, tobacco, sugar, coffee, cotton, and chocolate are cultivated with complete success.

The hydrography of Peru may be said to be divided into three systems—those of Lake Titicaca, the Pacific, and the Amazon. The streams that flow into Lake Titicaca are few and inconsiderable. The rivers, which, having their sources in the Western Cordillera, flow west into the Pacific, are about sixty in number; but many of them are dry in summer, and even the more important are rapid and shallow, have a short course, are not navigable even for canoes, and are mainly used for the purpose of irrigation. All the great rivers of Peru are tributaries of the Amazon. The Marañon, rising between the Eastern and Western Cordilleras, and flowing tortuously to the north-north-west, is generally considered to be the headwater of the Amazon. The Huallaga rises near the town of Huanuco, and flows northward to the Amazon. It is navigable for 600 miles, the head of its navigation (for canoes) being at Tingo Maria, within 100 miles of its source. The Yucayali, or Ucayali, an immense river, enters the Amazon 210 miles below the Huallaga. Its tributaries and upper waters, among which are the Pampas and the Apurimac, drain the greater portion of the Peruvian Sierra. The Purus, which reaches to the valleys of Paucartambo, within sixty miles of Cuzco, has not yet been explored. The Andes abound in mines of gold, silver, copper, lead, bismuth, etc.; and in the Montaña gold is said to exist in abundance in veins, and in pools on the margins of rivers.

But besides the precious metals, Peru possesses other most important mineral resources. In addition to the guano, to which allusion has already been made, another important article of national wealth is nitrate of soda, which is found in immense quantities in the province of Tarapaca. This substance, which is a powerful fertilizer, is calculated to cover, in this province alone, an area of fifty square

leagues. Here, also, great quantities of borax are found. The trade in guano, nitre, and borax is entirely in the hands of the government.

The vegetable productions of Peru are of every variety, embracing all the products both of temperate and tropical climes. The European cereals and vegetables are grown with perfect success, together with maize, rice, pumpkins, tobacco, coffee, sugar-cane, cotton, etc. Fruits of the most delicious flavor are grown in endless variety. Cotton, for which the soil and climate of Peru are admirably adapted, is now produced here in gradually increasing quantity. The land suited to the cultivation of this plant is of immense extent, and the quality of the cotton grown is excellent. The animals comprise those of Europe, together with the lama and its allied species.

The principal items of export in 1870 were: Guano, 482,299 tons; nitrate of soda, 147,200 quintals, valued at 6,624,000 soles;* quinine, 11,921 quintals, valued at 810,641 soles; silver, 1,120,118 soles; hides and skins valued at 530,403 soles; wool valued at 396,610 soles.

The merchant navy in 1869 comprised 95 vessels, aggregating 9596 tons burden; included in this were 11 steamers of a total burden of 435 tons.

The constitution of Peru is modeled on that of the United States, the legislative power being vested in a Senate and House of Representatives, the former composed of deputies of the provinces, two for each, and the latter of representatives nominated by the electoral colleges of provinces and parishes, at the rate of one member for every 20,000 inhabitants. The parochial electoral colleges choose deputies to the provincial colleges, who in turn send representatives to Congress. In the session of 1875 the Senate was composed of 44 and the House of Representatives of 110 members.

The executive power is entrusted to a president, assisted by a vice-president, both elected by popular vote and serving for a term of four years.

By the terms of the constitution of 1867 there exists absolute political but not religious freedom, the charter prohibiting the public exercise of any other religion than the Roman Catholic, which is declared the religion of the State.

The public debt is divided into an internal debt, which in 1872 was about £2,500,000, and the foreign debt, which in 1875 amounted to £34,713,980. The public income during 1872 was 58,982,851 soles; the public expenditures during the same year 57,913,764 soles.

The army comprises: Infantry, 5600; cavalry, 1200; artillery, 2000; total, 8800 men. The navy consists of 6 iron-clads, one of which is a 14-gun frigate, 2 monitors of 3 guns each, and 3 other vessels of 2, 2, and 14 guns respectively; besides which there are 6 steamships of 2, 2, 4, 4, 14, and 30 guns.

A system of railways designed mainly to develop the exploitation of the mineral wealth of the country, including important mines of nitrate of soda, has been in course of construction for several years. At the end of June, 1875, there were open for traffic or in course of construction lines of State railways of a total length of 1007 English miles. There were also in course of construction at the end of June, 1875, railways of a total length of 600 English miles, to be completed in 1877–80. The most important of these are a line from Lima to Oroya, 222 miles in length, and another, offering vast engineering difficulties, 187 miles long, from Arequipa to Puno, across the summit of the Cordillera de los Andes.

There were in 1874 telegraph lines of a total length of 608 miles.

Commission from PERU to the International Exhibition:

JOSE CARLOS TRACY, President.
JUAN JOSE BARRIL.
WILLIAM RUSSELL GRACE.
ANTONIO HERNANDEZ, Chief of Installation.
ENRIQUE VALIENTE, Secretary.

* One sol = 96½ cents, gold.

MEXICO.

THE Mexican Republic extends between latitude 15° to 32° 42′ north, and from 88° 54′ 30″ to 119° 25′ 30″ west longitude (meridian of Paris), or from 12° 21′ on the east to 18° on the west of the City of Mexico, and is bounded on the north by the United States, on the south by Guatemala, on the east by the Gulf of Mexico, and on the west by the Pacific Ocean.

The country measures in its greatest length, from the conflux of the Gila and Colorado Rivers to the bar of Ocos, which is the lower end of the State of Chiapas, 2933 kilometres, by 1733.2 kilometres in width, from the mouth of the Rio Grande to that of the Rio del Fuerte. Its coast-line embraces 8272.47 kilometres. The area of the Mexican territory amounts to 1,972,648 square kilometres.

Mexico is a mountainous country. The *Cordillera*, which can be considered as a development of the Andes, that start in Patagonia, South America, occupies all the country, forming, in its gradual descent toward the coasts, large table-lands and fertile valleys. At the point where this Cordillera reaches the territory of New Mexico it is divided into two ramifications, the eastern one parallel to that of Lower California, its principal summits being the *Pico de Orizava* and *Cofre de Perote*, and the western one, which becomes entangled with the other chains running toward the Nevado de Toluca. This point of intersection is marked by the volcano of *Colima*. The eastern chain has its nucleus in the *Zempoaltepec*, whose several ramifications extend over the State of Oaxaca, with the exception of the principal branch, which stretches over the State of Guerrero. Between these two mountainous chains there is another of no less importance, which includes the beautiful mountains Popocatapetl and Ixtaccihuatl. The latter, the Cofre de Perote, and the White Pick of Toluca are the highest peaks of the Mexican Andes.

The northern part of the republic, between latitude 23° 30′ and 32° 42′ north, belongs to the temperate zone, and the southern portion, included between 15° and 32° 30′, to the torrid zone. Owing partially to this division and to the difference in the level of the soil, there is in Mexico a great variety of climate. The warm temperature is observed in the region extending from the coast to the height of 3000 feet; the temperate, from the height of 3000 feet to 5000 feet; and the cold climate, from 5000 feet to the highest summits.

The population of Mexico amounts to 8,743,000, in the following proportions:

European,	2,331,000
Indigenous,	1,750,000
Of a mixed origin,	4,662,000
Total,	8,743,000

The following list shows which are the principal centres of population:

CITIES.	STATES.	POPULATION.
Mexico,	District of Mexico,	200,000
Leon,	Guanajuato,	90,000
Guadalajara,	Jalisco,	75,000
Puebla,	Puebla,	65,000
Guanajuato	Guanajuato,	63,000
Queretaro,	Queretaro,	48,000
Celaya,	Guanajuato,	37,000
Orizaba,	Vera Cruz,	37,000
San Miguel Allende,	Guanajuato.	35,000

A more complete idea of the manner in which the population is distributed can be arrived at by the following statistical table:

NAME OF STATES IN THEIR GEOGRAPHICAL ORDER.	SQUARE LEAGUES.	POPULATION.	INHABITANTS PER SQUARE LEAGUE.
Souvra,	11,953	147,133	12
Chihuahua,	15,534	179,971	11
Coahuila,	8,692	67,691	8
Nuevo Leon,	2,119	171,000	81
Tamaulipas,	4,228	108,514	26
San Luis Potosi,	4,262	397,735	93
Zacatecas,	3,922	398,977	101
Aguas Calientes,	327	86,576	264
Durango,	6,921	173,942	27
Sinaloa,	3,825	161,157	42
Jalisco,	7,224	924,580	128
Colima,	353	48,649	137
Michoacan,	3,188	618,072	193
Guanajuato,	1,642	874,000	532
Queretaro,	506	166,643	329
Mexico,	1,416	599,810	323
Hidalgo,	1,251	404,207	323
Morelos,	280	121,409	433
Guerrero,	3,574	270,000	76
Puebla,	1,735	830,000	478
Tlaxacala,	221	117,941	533
Vera Cruz,	4,047	380,976	94
Oaxaca,	4,035	601,850	149
Tabasco,	1,876	83,707	44
Chiapas,	2,474	193,987	78
Campeche,	3,848	86,453	22
Yucatan,	4,818	282,634	59
Federal District,	12.56	225,000	
Lower California Territory,	8,709	21,000	2
	112,362.56	8,743,614	

The sugar and coffee culture, and the industries of which the agave plant is a basis, deserve particular mention. Numerous metalliferous veins are found in the mountains of the Sierra Madre and its different ramifications. These mineral districts contain not only the precious ores for which Mexico has been particularly noted, but also iron, tin, copper, and some other metals of great industrial value. Bismuth, having become scarce in former years, was found at last in the States of San Luis Potosi, Sinaloa, Queretaro, and Zacatecas. Discoveries of coal, precious opals, and quicksilver ores have also been made, the former in the States of Puebla and Vera Cruz, the latter in the States of Queretaro and Guerrero. The district of Huitzuco has proved the most abundant in mercury, and during the last year has supplied the Mexican market with large quantities of this useful metal.

The geological formations which are found in the mineral veins of Mexico consist chiefly of the three following classes of rocks:

1. Compact mesozoic limestone.
2. Slate and sandstone.
3. Metalliferous porphyry, which probably corresponds to the Tertiary period.

As types of these three formations should be mentioned those found respectively in the States of Queretaro, Guanajuato, and Hidalgo. Many mountains of the above-mentioned types, and containing metalliferous veins, can be seen in almost all the States of the Republic. The argentiferous galenite and tetrahedrite prevail in the first of the aforesaid formations; the polybasite and the pyrargirite in the second; and sulphuret of silver, argentiferous galenite, and blende in the third. The collections exhibited in the Mexican Department of the Main Building include some

samples of these mineral compounds, and of rocks useful as building and ornamental materials, among which the beautiful calcareous slates from the District of Tecali (State of Puebla) are worthy of especial mention.

Among the advantages which industry and trade have secured in Mexico, the double line of railroad from the principal port to the capital, and the exceptional and liberal tariffs established for goods intended for exportation, ought to be considered as the most beneficial. One of the aforesaid lines (via Orizaba) is complete, and has been in operation for several years; the other, which connects Vera Cruz with the town of Jalapa and with some of the agricultural districts of the State of Puebla, will soon be completed. The Mexican Congress has made very liberal grants for the construction of three railways intended to connect the city of Mexico with the northern frontier, and the districts more abundant in tropical products with the city of Puebla. Between this city and the trunk line of the Vera Cruz Railroad there is a branch line in operation. Another railroad connecting the capital with the city of Toluca is under construction, and in operation as far as the town of Tlalnepantla. Another line connects the port of Vera Cruz with the town of Medellin. The capital is connected by electric wires with the principal cities and with the ports and coasts of the republic.

The United States of Mexico maintain an active trade with the following nations, viz.: England, France, United States, Germany, Spain and Cuba, New Granada, Guatemala, Nicaragua, and on smaller scale with Belgium, Ecuador, and Italy.

The imports of foreign goods during the fiscal year ending June, 1873, amounted to $29,062,406.94, taking as a basis the market value of the articles. All the articles are registered in the custom-house tariff of duties under eleven heads, viz.:

	INVOICE VALUE.	MARKET VALUE.	DUTIES.
1. Cottons,	$7,311,646.03	$10,531,970.15	$4,734,340.87
2. Groceries,	3,437,525.43	5,191,788.62	2,012,509.30
3. Articles free from duty,	2,411,593.73	3,354,259.77	
4. Mercury,	1,356,600.31	2,184,014.56	763,908.87
5. Miscellaneous,	1,434,216.56	2,035,609.63	1,055,828.05
6. Linen and hemp,	993,362.76	1,452,978.28	564,125.89
7. Wools,	1,038,044.31	1,427,867.58	644,496.77
8. Mixtures,	998,831.81	1,417,427.61	605,146.49
9. Silks,	419,017.10	588,911.32	267,404.71
10. Earthenware, crystal, and glass	344,936.45	577,510.82	206,547.31
11. Drugs,	173,852.32	300,069.05	131,011.33
	$19,919,632.81	$29,062,406.94	$10,989,319.64

The value of goods exported amounts to $31,473,607.24. The exports are arranged under two heads:

Minerals and metals,	$25,373,673.78
Agricultural and industrial products,	6,317,477.06
Total,	$31,691,150.84

Under the first heading are:

Silver coin,	$22,602,493.33
Solid silver,	1,512,616.94
Gold coin,	640,270.97
Solid gold,	288,578.21
Ores and mineral earths,	222,854.00
Silver amalgam,	39,251.78
Lead,	30,831.00
Copper,	17,137.94

Under the second heading:

Skins,	$1,546,869.43
Henequen,	1,049,202.58
Building and color woods,	1,042,586.31
Coffee,	532,912.86
Vanilla,	414,038.40
Cochineal,	276,699.30
Cattle,	209,960.00
Tobacco,	132,984.75
Orchilla (Rocsella tintorea),	128,450.09
Precious pearls,	109,300.00
Caoutchouc,	93,052.88
Sarsaparilla,	90.862.18
Wool,	88,635.72
Indigo,	80,229.87
Jalap,	77,517.40
Cocoanuts,	46,000.00

The revenue of the General Government and the expenses of the Federal Administration amount to a yearly average of 20,000,000 dollars.

There have been 8103 schools established by the Government for the primary instruction of the people. In eighteen of the States attendance has been made compulsory.

The official data in regard to secondary and higher instruction are condensed in the following figures relating to the institutions of these two degrees, maintained by the Mexican government:

26 Preparatory Schools.
18 Colleges of Jurisprudence.
12 " " Engineering.
11 " " Medicine.
9 " " Pharmacy.
2 " " Navigation.
2 " " Agriculture.
2 " " Mining.
2 Conservatories of Art.
3 " " Music.
15 Ladies' Colleges.

The above list does not include a large number of establishments conducted by the clergy, benevolent societies, or private teachers.

Commission from MEXICO to the International Exhibition:

Commissioners.

MANUEL M. DE ZAMACONA.
MARIANO BARCENA.
ELENTERIO AVILA.
MANUEL CORELLA, Attache.
AURTRO YBANEZ, Engineer.
EDITH BORZELL, Engineer.
LLUTARCO ORNELAS, Acting Sect'y.
FERNANDO CAMACHO, Employe.
J. LEON CALDERON, Employe.

LIBERIA.

THE Republic of Liberia is situated on the West Coast of Africa, between the fourth and eighth degrees of north latitude, and extends along five hundred and twenty miles of the coast, from the English colony of Sierra Leone to the mouth of the San Pedro River. Its most interior settlement is some thirty miles from the sea-board. The land has been purchased in an open and honorable manner from the aboriginal owners, and there is no obstacle to the acquisition of additional territory inland until the heart of the great continent is reached.

Immediately on the sea-shore the land is generally low, but very soon becomes elevated, rising in gentle undulations or swells. The whole country is well wooded and watered. Timber suitable for building purposes, cabinet-work, and shipbuilding is abundant, as is also good water.

All tropical productions are readily raised in Liberia, many of them the entire year, and dug from the earth every month for use. The Lima bean, tomato, and egg-plant are indigenous and of several varieties, and yield abundantly. Fruits grow in a wild state and under cultivation. Oranges are especially fine. Nowhere is a better quality of sugar-cane produced. Liberia coffee is the richest known, always commanding the highest market price. Cotton, ginger, ground-nuts, arrow-root, pepper, and indigo are mainly raised by the American settlers. Palm-oil, made by the natives, ivory, camwood, gums, and hides are valuable articles of commerce exported from Liberia. Horses are little used on the coast, but are plentiful in the interior. Cows, goats, hogs, ducks, turkeys, and fowls are abundant. The rivers abound in shell and other fish.

The climate is uniformly sultry and moist, but the heat is not excessive; the thermometer in the wet season stands at about 71°, and in the dry at about 82°.

A very great impulse is perceptible in Liberian industry during the last thirteen years. The greatest success has, however, resulted from a natural capacity for agriculture, which is growing rapidly and promises at an early day to make the whole territory a vast coffee grove. A very superior quality of iron ore is found in all parts of the country and worked by the natives, and will be of great use in manufacture and trade. Three years ago a volcanic eruption disclosed many valuable minerals.

The American Colonization Society, to which Liberia owes its origin, was founded in Washington, D. C., December 21st, 1816. It has given passage more or less every year for the last fifty-five years to 15,098 persons of color, and it induced the government of the United States to settle in Liberia 5722 recaptured Africans, making a grand total of 20,820 persons to whom the society has given homes in that republic. Monrovia, at the mouth of the river Mesurado, is the capital, and has about 7000 inhabitants.

Some 600,000 natives residing on the territory of Liberia live mostly in their own towns, subject to their own headmen and their own laws, yet amenable to Liberian authority and having all the protection and privileges of citizens. Not a few have become such and creditably fill various public offices, while all are gradually acquiring the arts, comforts, and conveniences of civilized life.

The last tabular statement issued shows the previous year's imports of Liberia to have reached $209,423.88, and the exports $171,351.47. Since then Edward S.

Morris & Co., of Philadelphia, Pa., have introduced improved and patented coffee-hulling machinery and a steamer, the first on the St. Paul's River, thus greatly stimulating not only the production and transportation of coffee, but other valuable articles, for export. They have also there begun the manufacture of palm-oil soap and indigo. The commercial statistics of Liberia would therefore, if presented now, appear far more advantageously.

There are two Liberia newspapers, the "Liberia Advocate" and the "Interior." The former aims to discuss principles and point facts that will be useful to the country in every particular; the other is especially devoted to assisting intercourse and amity with the strange interior tribes, most of whom can read, while all are anxious for an English education. By a law of Liberia all parents are required to send their children to school. In some of the settlements the schools are good. A college, the materials and erection of which cost $20,000, is in operation at Monrovia. All the professors are colored men.

The State has good patent laws, hospitals, and saw-mills and lighthouses. All religious denominations are allowed, and there are several in each of the settlements. Quite a number of vessels have been built in the country and are owned, manned, and managed wholly by Liberians. Some of these have appeared in American and European ports loaded with Liberian and other African products.

The Constitution of Liberia very closely resembles that of the United States, and was adopted in convention on the 26th of July, 1847. The powers of government are vested in three departments, legislative, executive, and judicial. The legislative authority consists of a House of Representatives and a Senate, each of which has a negative on the other. The election of representatives is for two years. Two members from each county constitute the Senate, and are elected for four years. The executive power is vested in a President, chosen every two years. He is commander-in-chief of the army and navy, and makes treaties, two-thirds of the Senate concurring. With the advice and control of the Senate he appoints all public officers for whose appointment special provision is not made by law. There is also a Vice-president elected in the same manner, who is president of the Senate. The judicial power is placed in a Supreme Court and such subordinate courts as the legislature may from time to time establish.

Among the miscellaneous provisions of this Constitution is the following: "Section 13. The great object of founding these colonies being to provide a home for the despised and oppressed children of Africa, and to regenerate and enlighten that benighted continent, none but persons of color shall be admitted to citizenship in this republic."

Liberia has an earnest hope that this exhibition of her products will attract the attention of colored Americans and draw the large immigration needed. The country needs this more than anything else, and with it could be powerful and rich in ten years.

SPAIN.

SPAIN occupies the larger portion of the great peninsula which forms the southwest corner of the European continent, reaching farther south than any other European country, and farther west than any except Portugal. It is bounded on the north by the Bay of Biscay and by France, from which it is separated by the mountain ridge of the Pyrenees, on the east and south by the Mediterranean and Atlantic, and on the west by the Atlantic and Portugal. Greatest length, from Fuenterrabia on the north to Tarifa on the south, 560 miles; greatest breadth, from Cape Finisterre (Land's End), the extreme point on the west, to Cape Creuze, the extreme point on the east, about 650 miles; average breadth about 380 miles. Area, including the Balearic and Canary Isles, 196,031 English square miles; population (1870), 16,835,506. The country, including the Balearic and Canary Isles, was divided, in 1834, into 49 modern provinces, though the former division, into 14 kingdoms, states, or provinces, is still sometimes used.

The entire perimeter of the country is 2080 English miles, and the coast line, exclusive of windings, is 1317 miles long, of which 712 miles are formed by the Mediterranean, and 605 miles by the Atlantic. The north coast, from Fuenterrabia west to Cape Ortegal, is unbroken by any considerable indentation. A wall of rocks, varying in height from 30 to 300 feet, runs along this shore; but the water, which retains considerable depth close to the beach, is not interrupted to any unusual extent by islands or rocks. The northwest coast, from Cape Ortegal south to the mouth of the river Minho—which separates the Spanish province of Galicia from Portugal—though rock-bound, is less elevated, and is much more broken than the shores washed by the Bay of Biscay; and the indentations, the chief of which are Noya Arosa and Vigo Bays, form secure and spacious harbors. From the mouth of the Guadiana, on the south, to the Strait of Gibraltar, the coast line, though well defined, is low, sandy, and occasionally swampy. From Gibraltar to Cape Palos the shores, which are backed in part by the mountain range of the Sierra Nevada, are rocky and high (though flats occur at intervals), are unbroken by indentations, and comprise only two harbors, those of Cartagena and Malaga. A low, and for the most part sandy, coast extends north from Cape Palos, rising into rocky cliffs and bluffs in the vicinity of Denia, but extending in sandy flats from Denia to the mouth of the Ebro. From the mouth of this river north to the frontier of France the coast is alternately high and low, and its principal harbors are Barcelona and Rosas. The compactness and the isolation of this country, and its position between two seas, the most famous and commercially the most important in the world, are not more in its favor than the character of its surface, which is more diversified than that of any other country in Europe of equal extent. An immense plateau, the loftiest in the continent, occupies the central regions of Spain, and is bounded on the north and west by mountainous tracts, and on the northeast by the valley of the Ebro; on the east by tracts of land frequently low, but in some parts traversed by hill ranges; on the south by the valley of the Guadalquivir, which intervenes between it and the Sierra Nevada. This great plateau rises to the height of from 2000 to 3000 feet, and occupies upward of 90,000 square miles, or about half of the entire area of the country. The whole of the Pyrenean peninsula is divided by Spanish geographers into seven mountain ranges, of which the chief are: 1. The Cantabrian mountains and the Pyrenees, forming the most northern range; 2. The

Sierra de Guadarrama, separating Leon and Old Castile from Estremadura and New Castile, and rising in the peak of Penalara 7764 feet above sea level; 3. The Montes de Toledo, forming a part of the water-shed between the Tagus and the Guadiana; 4. The Sierra Morena, between the upper waters of the Guadiana and Guadalquivir; 5. The Sierra Nevada, running parallel with the shores of the Mediterranean, through Southern Murcia and Andalucia, and rising in its chief summits to loftier elevations than are found in any mountain system of Europe except that of the Alps. The several mountain ridges, or as they are called Cordilleras, of Spain, have a general east and west direction, and between them run, in the same direction, the nearly parallel valleys or basins of the great rivers of the country, the Douro, Tagus, Guadiana, and Guadalquivir, each of which is described in its proper place.

The climate of Spain, owing to extent and configuration of the country, is exceedingly various. In the northwest (maritime) provinces it is damp and rainy during the greater part of the year; at Madrid, which is situated about 11° south of London, and only 5° north of the shores of Africa, winters have occurred of such severity that sentinels while on duty have been frozen to death, while the south and east provinces are warm in winter, and are exposed to burning winds from the south, and to an almost tropical heat, in summer. Both ancient and modern geographers have adopted difference of climate as the rule for dividing the peninsula into tracts distinct as well in soil and vegetation as in temperature. Of these tracts or zones the first and most northern may be considered as embracing Galicia, Asturias, the Basque Provinces, Navarre, Catalonia, and the northern districts of Old Castile and Aragon. In this tract the winters are long and the springs and autumns rainy, while north and northeast winds blow cold from the snow-covered Pyrenees. The middle zone is formed mainly by the great central plateau, and embraces Northern Valencia, New Castile, Leon, and Estremadura, with the south parts of Old Castile and Aragon. The climate of the great part of this region is pleasant only in spring and autumn. The soil is generally fertile, and corn and wine are most abundantly produced. The southern or Bætican zone, comprising the rich country that extends between the southern wall of the central plateau and the Mediterrancan shores, includes Andalucia, Murcia, and Southern Valencia. The stony rampart on the north protects it from the chilly winds of the central zone; but it is unprotected against the hot winds which in summer blow north from Africa and render this season intolerable to northern Europeans. Here the winter is temperate, and the spring and autumn delightful beyond description. The soil, which is artificially irrigated, is well adapted to agriculture and the cultivation of heat-loving fruits. The products comprise sugar, cotton, and rice, and the orange, lemon, and date.

The vast mountains of the country, affording, for the most part, only scanty crops of herbage, are utilized as pasture-grounds and are divided into large farms. But in the warm and fertile plains, especially where water is abundant, the farms are small. In 1860 there were 3,426,083 farms of all sizes, of which 750,000 were occupied by tenants, and the others by proprietors.

The cotton manufactures of Spain have been making considerable progress, and silk stuffs are largely fabricated. The principal cotton factories are at Barcelona. Excellent paper is made at Tolosa and Valladolid, and in the last-named town there are a few minor manufactures. The manufactures of tobacco, arms, and gunpowder are carried on by the government exclusively. Though neither the agricultural nor mineral resources of Spain are properly developed, a great advance has been evident within the last ten years, chiefly in mining, and more especially so in the working of lead and copper mines. Lead, copper, and tin are abundant, and there are large deposits of good coal and iron ore. The quicksilver mines of Almaden have been long celebrated and are still worked.

The merchant navy consisted in 1873 of 3069 vessels, of a total burden of 678,886 tons. Of these 202 were steam-vessels, 138,670 tons burden. The imports during

the year 1874 amounted to 382,000,000 pesetas,* the exports to 403,000,000 pesetas. The principal imports are sugar, yarn, woolen fabrics, raw cotton, iron, machinery, coals, and dried fish; the principal exports are wine, metals, dried fruit, flour, bullion, green fruits, olive-oil, minerals, wool, grain, vegetation, and seeds, cork, and salt.

At the end of 1875 Spain had no constitution, but it was resolved by the government of King Alfonso XII. that a charter should be drawn up by a Cortes Constituyentes, to be called together in the spring of 1876. As a preliminary measure a committee of senators and deputies of the last Cortes, dissolved in 1874, had been called together July, 1875, at Madrid, which meeting resulted in the production of a constitutional scheme which was adopted by the government, and from which are to spring the future fundamental laws of Spain. The projected constitution provides that the power to make laws shall reside "in the Cortes with the king," and that the Cortes shall be composed of a Senate and Congress equal in faculties.

The various provinces of Spain, districts and communes, are governed by their own municipal laws, with strongly pronounced local administration. Neither the national executive nor the Cortes have the right to interfere in the established municipal and provincial self-government, except in case the action of the provincial parliaments or municipal councils (ayuntamientos) goes beyond the locally limited sphere to the injury of general and permanent interests.

The public debt, June 1, 1874, was 10,120,285,220 pesetas; the estimated public receipts for the financial year 1874–75, 609,541,141; estimated expenditures for the same year, 605,125,569. The army statistics are as follows:

	ON A PEACE FOOTING.	ON A WAR FOOTING.
Infantry,	56,000	178,000
Cavalry,	10,900	10,900
Artillery,	9,300	11,900
Engineers,	2,200	2,200
Carabineers,	13,000	13,000
Totals,	91,400	216,000

The navy consists of 123 steam-vessels, carrying 755 guns and aggregating 21,161 horse-power. Besides these, there are 3 school-ships, carrying 54 guns, and 2 sailing-vessels. The Spanish fleet is manned by 14,000 seamen and 5500 marines.

The length of railways in operation January, 1875, was 3810 English miles, and 1264 English miles were in course of construction. The whole of the Spanish railways belong to private companies, but nearly all have obtained guarantees or subventions from the government.

The post-office carried 75,300,000 letters in the year 1874. There were 2365 post-offices on the 1st of January, 1875.

The length of lines of telegraph on the 1st of January, 1875, was 7510 English miles, and the total length of wires 16,950 English miles. In the year 1874 the number of messages was 937,845.

COLONIES.

	AREA IN ENGLISH SQ. MILES.	POPULATION.
AMERICA.		
Cuba,	43,225	1,400,000
Puerto Rico,	3,544	625,000
ASIA.		
Philippine Islands and adjacent archipelago	66,423	6,034,410
AFRICA.		
Fernando Po, Annobon, etc.,	483	35,000
Total,	113,675	8,094,410

* The peseta = 19.3 cents.

The following figures show the production of sugar and molasses and amount exported from Cuba during the year 1873:

	PRODUCTION.	EXPORTED.
Sugar,	796,179 tons.	714,960 tons.
Molasses,	242,308 "	189,333 "
Total,	1,038,487 "	904,293 "

About two-thirds of the sugar and about nine-tenths of the molasses are sent to the United States.

The exports from the port of Havana during the year 1873 included 1412 tierces of honey, 19,574 pipes of rum, 46,216 lbs. of wax, 13,387,652 lbs. of tobacco, and 224,765,000 cigars. The number of vessels entered at the port of Havana during 1873 was 2194, with a total tonnage of 921,632.

During the same year Porto Rico exported 2,032,913 quintals of sugar, 6,082,539 gallons of molasses, 270,895 quintals of coffee, 51,766 quintals of tobacco, 2484 quintals of cotton, and 32,782 gallons of rum.

The exports of the Philippine Islands are principally sugar, hemp, tobacco, cigars, and coffee, and amounted in 1873 to 15,216,000 pesos.*

(The above statistics were furnished in part by the Spanish Commission.)

Commission from SPAIN to the International Exhibition:

COLONEL F. LOPEZ FABRA, Royal Commissioner-General.
COLONEL JUAN J. MARIN, Engineer Corps, Royal Spanish Commissioner.
DON JOAQUIN OLIVER, Secretary.
DON ALVARO DE LA GANDARA, Director of the Industrial Department.
COUNT DEL DONADIO, Director of the Department of Fine Arts.
DON JOSE JORDANA Y MORERA, Director of the Agricultural Department.
DON JUAN MORPHY, Consul-General of Spain, Member of the Commission.
DON JULIAN A PRINCIPE, Vice-Consul, Attache.
DON MIGUEL GONZALEZ, Attache.
DON JOSE FONRODONA, Attache.

Chiefs of Bureaus.

DON ENRIQUE BROTONS. | DON ENRIQUE BORRELL.
DON ALFREDO ESCOBAR.

Chiefs of Installation.

DON BERNARDO FORZANO.
DON FRANCISCO FORZANO.
DON FRANCISCO PARODY, Interpreter.

* The peso = 92½ cents.

PORTUGAL.

PORTUGAL, the most westerly kingdom of Europe, is a part of the great Spanish peninsula, and lies in 36° 55′ to 42° 8′ N. lat., and 6° 15′ to 9° 30′ W. long. Its greatest length from north to south is 368 miles, and its average breadth from east to west about 100 miles. It is bounded by the Atlantic on the south and west, and by Spain on the north and east.

Portugal is divided into six provinces, the area of which and population, according to the last census (1868), is given in the subjoined table:

PROVINCES.	AREA IN ENGLISH SQ. MILES.	POPULATION.
Minho,	2,671	983,985
Tras-os-Montes,	4,065	370,144
Beira	8,586	1,288,994
Estremadura,	8,834	837,451
Alemtejo,	10,255	332,237
Algarve,	2,099	177,342
	36,510	3,995,153

The insular appendages of Portugal are, the Azores, 1133.79 sq. miles, pop. (1868) 252,480; Madeira, etc., 330.75 sq. miles, pop. 113,341. The total area of the home possessions of Portugal is, therefore, 37,510.83 sq. miles, and the population 4,360,974.

Portugal must be regarded as essentially a littoral country, forming the Atlantic or western part of the Spanish peninsula, from which it is separated by political rather than physical boundaries. Its mountains and rivers are, with few exceptions, mere western prolongations of those of Spain. The principal mountain ranges lie about halfway inland, leaving almost the whole of its 500 miles of coast-line a flat sandy tract, with few rocky headlands, and hence there are scarcely any harbors or places of safe anchorage, except at the embouchures of the larger rivers. The highest range is the Serra de Estrella, which, passing from north-north-east to south-south-west, through Beira and Estremadura, terminates in the steep acclivities of Cintra and Cap la Rocca, near Lisbon. The principal chain, which is also known as the Serra da Junto, merges in a series of ridges, which cover a tract thirty miles in length between the Tagus and the sea. Another mountain range, named the Serra de Calderao and the Serra de Monchique, but constituting a mere continuation of the Spanish Sierra Morena, crosses the southern part of Portugal from east to west, and terminates in its most southern promontory of Cape St. Vincent. These ranges, with the numerous mountain-spurs that intersect the northern districts in every direction, so thoroughly occupy the area of Portugal that there are only two or three plains of any extent in the whole country, and these are situated to the west of the Guadiana, in Alemtejo, and in Beira and Estremadura, near the Tagus and Vouga. The valleys are very numerous, and by their great fruitfulness present a striking contrast to the barren and rugged mountains by which they are enclosed. The principal rivers enter Portugal from Spain. Of these, the largest are the Guadiana, which, leaving Spain near Badajoz, forms in part the boundary between the southern provinces of the neighboring kingdom, while the Minho and Douro, flowing west, form a part of the boundary in the north and north-east. The Tagus, or Tejo, intersects Portugal from its northern frontier to the southern termination of the Estrella Mountains, where it enters the sea a little below Lisbon. The Mondego, the largest river belonging entirely to Portugal, after receiving numerous affluents in its course, falls into the sea about midway between the Douro and the Tagus. The larger rivers, although obstructed at their mouth with dangerous bars, afford admirable means of internal navigation, together with the numerous lesser streams, and might through

canals be connected into one great system of water routes; but hitherto nothing has been done to improve these great natural advantages. Except a few mountain tarns, Portugal has no lakes. It has salt marshes on the coast near Setubal, in Estremadura, and Aveiro, in Beira, whence large quantities of salt are annually obtained by evaporation. Mineral springs are abundant in many parts of the country, but hitherto they have been almost wholly neglected.

The vicinity to the western ocean tempers the climate of Portugal and exempts it from the dry heat by which Spain is visited. The great inequalities of the surface produce, however, great diversities of climate; for while snow falls abundantly on the mountains in the northern provinces, it is never seen in the lowlands of the southern districts, where spring begins with the new year and harvest is over by midsummer. Rain falls abundantly, especially on the coast, from October to March, and as a general rule the climate is healthy in the elevated districts even of the southern provinces; but malaria and fever prevail in low, flat lands and near the salt marshes. The mean annual temperature at Lisbon is 61° Fahr.

The natural products correspond to the diversity of the physical and climatic conditions; for while barley, oats and wheat, maize, flax, and hemp are grown in the more elevated tracts, rice is cultivated in the lowlands, the oak thrives in the northern, the chestnut in the central, and the cork, date, and American aloe in the southern parts, while every species of European and various kinds of semi-tropical fruits and vegetables are grown in different parts of the country. The soil is generally rich, but agriculture is everywhere neglected, and is scarcely made subservient to the wants of the population. The cultivation of the vine and that of the olive are almost the sole branches of industry; from the former is derived the rich red wine familiarly known to us as Port, from its being shipped at *O Porto*, "the port." The mineral products include gold, antimony, lead, copper, marble, slate, coal, iron, and salt, but of these the last is alone worked in sufficient quantity for exportation, and is in eager demand for the British market on account of its superior hardness, which adapts it specially for the salting of meat for ships. The commercial industry of the country falls very far below its physical capabilities, and Oporto and Lisbon are the only centres of manufacture and trade, the former of which has important silk and glove manufactories, and produces an inconsiderable quantity of linen, cotton, and wool fabrics, metal and earthenware goods, tobacco, cigars, leather, etc.

The external trade of Portugal is as follows: Imports 34,047,000 milreis, exports 23,609,000 milreis. (The milreis equals $1.08 in gold.)

The commercial navy of Portugal consisted on the 1st of January, 1872, of 813 vessels, of a total burden of 88,510 tons.

The fundamental law of the kingdom is the "Carta Constitutional," granted by King Pedro IV. April 29th, 1826, and altered by an additional act, dated July 5th, 1852. The crown is hereditary in the female as well as male line, but with preference of male in case of equal birthright. The constitution recognizes four powers in the state, the legislative, the executive, the judicial, and the "moderating" authority, the last of which is vested in the sovereign. There are two legislative chambers, the "Camera dos Pares," or House of Peers, and the "Camera dos Deputados," or House of Commons, which are conjunctively called the Cortes Geraes. The peers, unlimited in numbers, but actually comprising 133, are named for life by the sovereign, by whom also the president and vice-president of the first chamber are nominated. The members of the second chamber are chosen in direct election by all citizens having a clear annual income of 133 milreis. The deputies must have an income of at least 390 milreis, but lawyers, professors, physicians, or the graduates of any of the learned professions need no property qualification. Continental Portugal is divided into ninety-four electoral districts, returning as many deputies. The General Cortes meet and separate at specified periods, without the intervention of the sovereign, and the latter has no veto on a law passed twice by both Houses. All laws

relating to the army or general taxation must originate in the Chamber of Deputies. The executive authority vests, under the sovereign, in a responsible ministry.

The budget of the financial year 1875–76 gives the estimated revenue at 23,152,000 milreis, and the expenditure at 24,129,000 milreis.

About one-half of the total liabilities of Portugal rank as an external debt, contracted for mainly in Great Britain, the rest being a home debt. The entire public debt amounted November 30, 1873, to £72,833,000. The army, in time of peace, numbers 31,826 men.

The navy of Portugal comprised, at the end of 1875, 21 steamers and 11 sailing-vessels, most of the latter laid up in harbor. The steamers comprise 9 corvettes, 8 sloops, and 7 gunboats, with a total of 170 guns and 4906 horse-power. The navy is officered by 1 vice-admiral, 5 rear-admirals, and 31 captains, and manned by 3493 sailors and marines.

The total length of railways in Portugal at the commencement of 1875 was 523 English miles. All the railways receive subventions from the state.

The number of post-offices in the kingdom at the beginning of 1872 was 599, and the number of telegraph offices 121. There were at the same time 1944 miles of telegraph lines. The number of telegrams despatched in the year 1871 was 698,700, nearly one-fifth for foreign countries. An international service by submarine cables was opened June 11, 1870.

Public education is entirely free from the supervision and control of the Church. By a law enacted in 1844 it is compulsory on parents to send their children to a place of public instruction, but this prescription is far from being enforced.

There are at present—

Scientific establishments for higher education,	9
For secondary education,	19
Elementary schools,	2445
For especial instruction,	6
	2479

The sum voted in 1875 for public instruction amounted to 902,730 milreis. The sum expended by private persons is estimated at about 300,000 more.

Colonies.

The colonial possessions of Portugal, situated in Asia and Africa, embrace a total area of 713,225 English square miles, or 34,820 geographical square miles. The latest official returns, based mainly on estimates, state the area and population as follows:

	AREA IN GEOG. SQ. MILES.	POPULATION.
1. POSSESSIONS IN ASIA:		
Settlements at Goa, Salcete, etc.,	68.60	474,233
" Damas and Diu,	7.45	53,284
Indian Archipelago,	260.	850,300
Macao,	.56	100,000
Total Asia,	336.61	1,477,817
2. POSSESSIONS IN AFRICA:		
Cape Verde Islands,	77.64	67,347
Settlements in Senegambia and Guinea,	1,687.	8,500
Islands of St. Thomas and Principe,	21.36	19,295
Angola, Benguela, and Mossamedas,	14,700	2,000,000
Mozambique and Sofala,	18,000	300,000
Total Africa,	34,486	2,395,142
Total Possessions,	34,822	3,872,959

Although of small extent, the Cape Verde Islands are estimated as the most important colonial possession of Portugal, politically and commercially. There are nine principal or inhabited islands that form the archipelago of the Cape de Verdes. Five of these islands—viz., St. Nicholas, Bona Vista, San Antonio, St. Vincent, and Sal—compose the Windward, and the four remaining islands—St. Jago, Fogo, Brava, and Maio—the Leeward, group. The island of St. Vincent, 70 English square miles in extent, but with not more than 1700 inhabitants, is possessed of a deep and excellent harbor, affording a secure anchorage at all seasons for vessels of the largest size. In the year 1871 there entered St. Vincent harbor 317 vessels of all nations. These islands, being in the direct route of European steamers bound to the coast of Brazil, the river Plate, and the west coast of South America, are of great value as affording a convenient resting-place for coaling and renewing provisions and water.

By the terms of a law passed by the Cortes Geraes of Portugal in 1858, domestic slavery is to cease in all the Portuguese colonies and settlements on the 29th of April, 1878.

Commission from PORTUGAL to the International Exhibition:

The preliminary works of the International Exhibition of Philadelphia were committed by the Portuguese Government to different corporations, these being helped by the authorities of the country.

EXECUTIVE COMMITTEES IN PORTUGAL.

DEPARTMENT I.

Bureau of Mines. JOAO BAPTISTA SCHIAPPA D'AZEVEDO, Chief.

Mining Engineers.

JOAO FERREIRA BRAGA.
LOURENCO MALHEIRO.
FRANCISCO FERREIRA ROQUETTE.
PEDRO VICTOR DA COSTA SEQUEIRA.

DEPARTMENTS II., III., IV., AND V.

Committee of the Society for the Encouragement of Manufacturing Industry.

ANTONIO AUGUSTO D'AGUIAR, Director of the Industrial Institute of Lisbon, President.
DANIEL CORDEIRO FEIO.
JOAQUIM MOREIRA MARQUES.
MANUEL DE CARVALHO RIBEIRO VIANNA.
IZIDORO THOMAZ DE MOURA CARVALHO.
MANUEL GOMES DA SILVA.
JOSE CAETANO D'ALMEIDA NAVARRO.
ANTONIO ADRIANO DA COSTA.
FIRMINO SEIXAS.
FRANCISCO JOSE LOPES FERREIRA.
MATHEUS FERREIRA.
ANTONIO DOS SANTOS MIGUEIS.
JULIO JOSE PIRES.
HENRIQUE PEREIRA TAVEIRA.

AT OPORTO.

GUSTAVO ADOLPHO GONCALVES E SOUZA, Director of the Industrial Institute of Oporto.

DEPARTMENTS VI. AND VII.

Committee of the Royal Central Society of Portuguese Agriculture.

VISCOUNT OF CARNIDE, President.
MANUEL JOSE RIBEIRO.
CAETANO DA SILVA LUZ.
JAYME BATALHA REIS.

ALFREDO DE QUEIROZ GUEDES, Treasurer.
LUIS AUGUSTO MARTINS D'ANDRADE, Secretary.

Committee of the Agricultural Society of Oporto.
BENTO DE FREITAS SOARES, President.
BARON OF ROEDA.
VISCOUNT OF VILLARINHO DE S. ROMAO.
VISCOUNT OF VILLAR ALLEN.
CONSTANTINO VANZELLER.
ARNALDO AMANDIO PEREIRA DE FARIA.
ALFREDO CARLOS LE COCQ.
JOAQUIM TAIBNER DE MORAES, Secretary.

COMMISSION IN PHILADELPHIA.

BARON OF SANT' ANNA, Royal General Commissioner.

DEPARTMENTS I., II., III., IV., AND V.

LOURENCO MALHEIRO, Commissioner.
ANTONIO JOSE ANTUNES NAVARRO.
FORGE CANDIDO BERKELEY COTTER.
THOMAZ VICTOR DA COSTA SEQUEIRA.

DEPARTMENTS VI. AND VII.

JAYME BATALHA REIS, Commissioner.
ALFREDO CARLOS LE COCQ.
MEM RODRIGUES DE VASCONCELLOS.
CAETANO OLYMPIO ROVERE.

TURKEY.

TURKEY, or the Ottoman Empire, includes large portions of the continents of Europe, Asia, and Africa, and consists of Turkey Proper, which is under the direct rule of the sultan, and of numerous dependent and tributary states, governed by their own princes. Turkey Proper is partly in Europe and partly in Asia, and is divided into a number of provinces, or *eyalets*.

The total area of the empire comprises 1,812,048 square miles, divided as follows:

	AREA.	POPULATION.
Turkey in Europe,	207,438	9,800,000
" " Asia,	660,870	16,750,000
" " Africa,	943,740	600,000
	1,812,048	27,150,000

The states dependent upon Turkey are either subject to hereditary chiefs — as in Egypt, Servia, and Montenegro — to elective rulers, or to viceroys appointed by the Sultan; and these chiefs, of whatever sort, must, on their accession, be approved of by the sultan, must acknowledge his suzerainty, and pay tribute; in all other respects they are on the footing of independent rulers.

Turkey Proper, as the immediate possessions of the sultan are called, is bounded by the Austrian dominions, Roumania, and the Black Sea on the north; by Persia, the Persian Gulf, and the Arabian Desert on the east; and by the Red Sea and its outlet, Egypt, the Mediterranean, Greece, the Adriatic Sea, and the Austrian empire on the south and west.

Turkey in Europe, the smaller of the two divisions of Turkey Proper, is generally hilly and undulating, traversed by a mountain system which has its origin in the Alps, whose eastern extension, the Julian Alps, enters the country at its north-west corner, runs in a south-west direction as the Dinaric Alps, keeping parallel to the coast-line, and after entering Albania, where it becomes Mount Pindus, assumes an almost southern direction till it reaches the Greek frontier. This range, which forms the water-shed between the Adriatic and Ægean Seas, has its culminating point in Mount Dinara (7458 feet), and sends out numerous offshoots over Montenegro and Albania.

The great river of Turkey is the Danube, which, with its tributary, the Save, forms the northern boundary, and receives in Turkey the Bosna and Drin from Bosnia, the Morava from Servia, and the Isker and Osma from Bulgaria. The Maritza, whose basin is formed by the Great Balkan and its two south-eastern branches, and the Strumo and Vardar, in Macedonia, are also considerable rivers, but those which are situated to the west of the Dinaric-Pindus range are, from the proximity of that water-shed to the sea-coast, insignificant in size; chief of them are the Narenta, Drin, and Voyutza. The Primitive rocks predominate in Macedonia, the Secondary group in the western provinces and to the north of the Balkan, and Tertiary deposits in the basins of the Save and Maritza, and in Suli.

On the high lands the cold is excessive in winter, owing to the north-east winds, which blow from the bleak and icy steppes of Southern Russia; and the heat

of summer is almost insupportable in the western valleys. Violent climatic change is, on the whole, the rule in European Turkey; but those districts which are sheltered from the cold winds, as the Albanian valleys, enjoy a comparatively equable temperature. Although the soil is for the most part very fertile, but little progress has been made in the art of agriculture, and the most primitive implements are in common use. The cultivated products are maize in the south; rice, cotton, rye, barley in the centre, and millet in the north; the natural products are the pine, beech, oak, lime, and ash, with the apple, pear, cherry, and apricot in the Danube basin; the palm, maple, almond, sycamore, walnut, chestnut, carob, box, myrtle, laurel, etc., in the provinces south of the Balkan; large forests of fir and pine in the north-west; the olive, orange, citron, vine, peach, plum, and other fruit trees in Albania; and abundance of roses in the valley of the Maritza. The mineral products are, iron in abundance, argentiferous lead ore, copper, sulphur, salt, alum, and a little gold, but no coal. The wild animals are the wild boar, bear, wolf, wild dog, civet, chamois, wild ox, and those others which are generally distributed in Europe. The lion was formerly an inhabitant of the Thessalian Mountains.

TURKEY IN ASIA.—This portion of the Turkish Empire is more hilly than the other; the two almost parallel ranges Taurus and Anti-Taurus, which are the basis of its mountain system, cover almost the whole of the peninsula of Asia Minor or Anatolia, with their ramifications and offshoots, forming the surface into elevated plateaux, deep valleys, and enclosed plains. From the Taurus chain the Lebanon range proceeds southward parallel to the coast of Syria, and diminishing in elevation in Palestine terminates on the Red Sea coast at Sinai. Besides the Euphrates, Tigris, and Orontes, the only important rivers of Turkey in Asia are the Kizil-Ermak, which rises on the borders of Cilicia, and after a devious course across the peninsula falls into the Black Sea near Samsoun; the Mæander and Sarabat, which flow to the Ægean; and the Sakaria, which empties itself into the Euxine. On the whole, Turkey in Asia is ill-supplied with water; and though the mountain slopes afford abundance of excellent pasture, the plains and many of the valleys, especially those of the Euphrates, Tigris, and Jordan, are reduced by the parching droughts of summer to the condition of sandy deserts.

The fertile portions produce abundance of wheat, barley, rice, maize, tobacco, hemp, flax, and cotton; the cedar, cypress, and evergreen oak flourish on the mountain slopes; the sycamore and mulberry on the lower hills; and the olive, fig, citron, orange, pomegranate, and vine on the low lands. The mineral products are iron, copper, lead, alum, silver, rock salt, coal (in Syria), and limestone. The fauna includes the lion (east of the Euphrates), the hyena, lynx, panther, leopard, buffalo, wild boar, wild ass, bear, wolf, jackal, jerboa, and many others; and the camel and dromedary increase the ordinary list of domestic animals.

Notwithstanding the primitive state of agriculture in Turkey, the extreme fertility of the soil, which returns from twenty-five fold to one hundred fold, makes ample amends for this defect, and supplies materials for the comparatively unimportant manufactures and industries of the country. The products are wax, raisins, dried figs, olive oil, silks, red cloth, dressed goat-skins, excellent morocco, saddlery, swords of superior quality, shawls, carpets, dye-stuffs, embroidery, essential oils, attar of roses, plum brandy, etc. The commerce of Turkey is extensive and important, and under the influence of judicious regulations is rapidly increasing. Detailed statistics are not obtainable. The average annual value of the imports of Turkey in Europe is estimated at £18,500,000; and of the exports at £10,000,000. The exports are the surplus of the above-mentioned natural and manufactured products of the country, also wool, goats' hair, meerschaum clay, honey, sponges, drugs, madder, gall-nuts, various gums and resins, and excellent wines; the imports are manufactured goods of all kinds, glass, pottery, arms, paper, cutlery, steel, amber, etc.

The merchant navy included, in 1873, 224 sailing-vessels of a total burden of

34,711 tons, and 9 steamers, aggregating 3049 tons. The total tonnage of the merchant navy is estimated at 180,000.

The sovereign is commonly styled sultan, but has also the titles padishah, grand seignior, khan, and hunkiar; though nominally absolute, his power is much limited by the *sheikh-ul-islam*, the chief of the *Ulemas*, who has the power of objecting to any of the sultan's decrees, and frequently possesses more authority over the people than his sovereign. The supreme head of the administration, and the next in rank to the sultan, is the grand vizier (*sadri-azam*), under whom are the members of the cabinet or divan (*menasybi-divaniie*), namely, the presidents of the supreme council of state (*alkiami-adlie*) and of the Tanzimat, the *Seraskier*, the *capudan pasha*, or high-admiral, and the other heads of departments of the administration. The governors of the *eyalets*, or provinces, are styled *walis;* each eyalet is divided into *sanjaks* or *livas*, ruled by *kaimakams*, each liva containing a number of *cazas*, or districts, and each caza a number of *nahiyehs*, composed of villages and hamlets.

According to the budget for 1875-76 (the year 1291, according to the Turkish calendar), the estimated public revenue was 4,776,588 purses* of 500 piastres each; the expenditure, 5,785,819 purses. The foreign debt of Turkey amounted in 1875 to £184,981,783; the internal and floating debt has been estimated variously at from £13,000,000 to £30,000,000.

The military forces of Turkey were officially estimated as follows in 1875: on a peace footing, 157,667 men; on a war footing, 586,100.

The navy consisted at the end of 1875 of 20 iron-clad ships and 70 other steamers. In addition to these there were 4 steam transports and a number of old sailing-vessels not fit for service. The total length of railways open for traffic on January 1st, 1875, was 825 English miles, of which 654 were in Europe and 171 in Asiatic Turkey. The length of telegraph lines on the 1st of January, 1875, was 17,597 miles. The total number of despatches carried in the year 1874 was 910,130, of which number 102,987 were international messages.

Education was long neglected, but in 1847 a new system was introduced; and since then schools for elementary instruction have been established throughout Turkey, and middle schools for higher education and colleges for the teaching of medicine, agriculture, naval and military science, etc. In 1870, Constantinople had 415 public schools, which were attended by 24,000 pupils.

Commission from TURKEY to the International Exhibition:

HIS EXCELLENCY G. D'ARISTARCHI BEY, Minister Plenipotentiary, President.
BALTAZZI EFFENDI, First Secretary of Legation.
RUSTEM EFFENDI, Second Secretary of Legation.
COUNT DELLA SALA, Acting Consul of Turkey.
MR. EDWARD SHERER.
MR. AUGUSTE GIESE, Honorary Member.

* One purse of 300 piasters = $25, gold.

RUSSIA.

THE empire of Russia, extending over a large proportion of the northern regions of the globe, includes the eastern part of Europe, the whole of Northern Asia, and a part of Central Asia. Lat. 38° 30′ to 78° N.; long. 17° 19′ E. to 190° E. (170° W.). Russia is bounded on the N. by the Arctic Ocean; on the E. by the Pacific Ocean; on the S. by the Chinese Empire, Turkestan, Caspian Sea, Persia, Asiatic and European Turkey, and the Black Sea; on the W. by Austria, Prussia, the Baltic, and Sweden.

The following table, showing the area and population of the Russian empire, is from the *Almanach de Gotha* for 1876:

	AREA IN SQUARE KILOMETRES.	POPULATION.
Russia,	4,909,194	65,704,559 (1870)
Poland,	127,316	6,026,421 (1870)
Grand Duchy of Finland,	373,536	1,832,138 (1872)
Lieutenancy of Caucasus,	447,645	4,893,332 (1871)
Siberia,	12,500,083	3,428,867 (1870)
Central Asia,	3,307,953	5,800,628
Total,	21,665,727	87,685,945

The northern shores of the Russian territories, which are washed by the Arctic Ocean, are deeply indented. The White Sea, an immense arm of the Arctic Ocean, penetrates 350 miles into the mainland, and is subdivided into the gulfs of Onega and Archangel or Dwina. The other chief inlets on the north of Russia are the Kara Sea and the gulfs of Obi and Yenisei. Westward from Nova Zembla the Arctic Ocean is navigable for three months of the year; east from that island the sea, even at the mildest season, is encumbered with floating icebergs. The chief islands in this ocean are the Kolguef, Waigatz, Nova Zembla, and Spitzbergen isles. The eastern shores of Russia are washed by the Pacific, subdivided into the Behring, Okhotsk, and Japan Seas, and the islands belonging to this country in these seas are Sakhalin and the northern part of the Kuriles. On the south are the Black Sea and the Sea of Azov, the latter communicating with the former by the Strait of Kertch, and so shallow that it is navigable for small craft only. Of the Caspian Sea, Russia commands the whole, with the exception of the south shore, which belongs to Persia. The northern and eastern banks of the Caspian are the seats of the chief fisheries of the empire. On the north-west of Russia are the Baltic Sea, with the gulfs of Riga, Finland, and Bothnia; and in these waters the islands of Aland, Esel, and Dago belong to the empire. The freezing of the water near the shores of the Baltic renders the navigation of this sea impracticable during five months of the year, although a few ports are accessible throughout the whole year. Possessing means of easy communication with the most fertile governments of the interior, and sustaining chiefly the commerce of the Russian empire with the other parts of Europe and with America, the Baltic is of the highest commercial importance.

European Russia consists of a vast plain bordered with mountains. On the east are the Ural Mountains, forming a broad range of no great elevation, ending on the

north on the shores of the Arctic Ocean, and on the south in a range of elevated plains on the left bank of the Volga. On the south-east of the great plain is the lofty range of the Caucasus, crossed by the Pass of Derbend and the so-called Military Georgian Road. The Crimean Mountains, a continuation of the Caucasian chain, rise to 5000 feet in their highest summit. The districts in the south-west of Russia, between the Vistula and the Pruth, are covered by hilly ranges from the Carpathian Mountains, which in Poland are known as the Sandomir Mountains. The Finland Mountains, on the north-west, are ranges of granite rocks, embracing numerous lakes, and not rising higher than 600 feet. The Alaunsky table-land, which connects itself with the Ural Mountains by a chain of hills in latitude about 62° N., is the key to the configuration of European Russia. From this table-land, with an elevation of about 1200 feet, the country, with gradually declining slopes, falls away in four directions—north to the Arctic, north-west to the Baltic, south to the Black, and south-east to the Caspian Seas. The sloping country on the north of the Alaunsky heights is called, from its eastern and western limits, the Ural-Baltic table-land; that on the south of the same dividing heights is called, for the same reason, the Ural-Carpathian table-land. The Alaunsky heights form the great water-shed, and regulate the course of all the great rivers of the Russian empire. To the north they throw off the Petchora, the Northern Dwina, and the Onega; to the south, the Dniester, Bug, Dnieper, Don, and Kouban; to the south-east, the Volga, with its great affluents the Oka and Kama. The Western Dwina, the Niemen, and the Vistula fall into the Baltic Sea. At the foot of the north-west slope from the central terrace is the lake country of European Russia, and the great lakes are Ladoga, Onega, Ilmen, Peipus, and Pskov. The plain of European Russia naturally divides itself into three tracts or zones, each of which differs from the others in the nature and quality of its soil. The northern zone extends between the Arctic Ocean and the Ural-Baltic table-land, the middle zone between the Ural-Baltic and the Ural-Carpathian table-lands, and the southern zone between the Ural-Carpathian table-land and the Black and Caspian Seas. The soil of the northern zone is marshy and the climate inclement. In its middle part, between the rivers Onega and Mezen, and especially along the banks of the Northern Dwina, forests of fir-wood and large tracts of fodder-grass occur. Toward the east of this tract the woods disappear, and vast marshes, frozen the greater part of the year, cover the country. The middle zone reaches south-west to the government of Volhynia and the South of Poland, and north-east to the Ural Mountains. In the west it consists of an extensive hollow, covered with woods and with marshes, the chief of which are those of Pinsk. In the middle part of this zone the soil is partly heavy and covered with mould, and toward the north sandy. Beyond the Oka luxuriant meadows abound, and on the east, beyond the Volga, this tract forms an extensive valley, covered with a thick layer of mould, abounding in woods, and rising into hills in the vicinity of the Ural range. The southern zone consists of steppes extending along the shores of the Black and Caspian Seas. The steppes of the Black Sea have mostly a mouldy soil covered with grass, but in the south-east shifting sands and salt marshes predominate. The steppes of the Caspian consist of sand, salt marshes, and salt lakes, the Elton lake, yielding nearly 4,000,000 pouds (about 1,290,000 hundred weights) of salt annually, being the most remarkable.

Owing to its vast extent, the Russian empire presents great varieties of climate. At Archangel the mean temperature of the year is 32° Fahr.; at Yalta, in the Crimea, 52°; and at Kutais, in the Caucasus, 58°. Consisting of an immense area of dry land, the climate of the empire is essentially continental, and the climate of localities in its interior is much more rigorous than that of places on the western shores of Europe in the same latitudes. The rigor of the climate of the empire increases not only with the latitude, but as you advance eastward; thus, the mean winter temperature of the town of Abo, on the Gulf of Bothnia, is the same as that

of Astrakhan, viz., 23° Fahr., although the former is in lat. 61° and the other in lat. 47°, or 14° nearer the equator. The difference of the mean summer temperature under the same latitudes is, on the contrary, not very considerable. The isothermal line of Astrakhan (60° Fahr.) passes through Lublin, in Poland, and Ekaterinoslav. In the east the maximum heat is even greater than in the west, and such heat-loving plants as the watermelon are grown more successfully in the south-east of Russia than in the west of Europe under the same latitude. The dryness of the atmosphere increases in the direction from north-west to south-east. On the banks of the Baltic the average number of rainy and snowy days is 150 and the annual rainfall is 20 inches, while near the Caspian the number of such days is 70 and the rainfall only 4 inches. The climate of Russia is in general healthy, but there are several places where diseases seem to be localized, as the shores of the Frozen Ocean, where scurvy is common, the marshes along the Niemen and Vistula, where the pica polonica is the chief disease, and the marshy lands on the Black, Azof, and Caspian Seas, where ague always prevails.

Russia is an eminently agricultural country, although only a comparatively small portion is under cultivation. In the central zone the soil is almost entirely black mould, extremely fertile, and hardly ever requiring manure. The system of husbandry most extensively practiced is what is called the "three-field system," in the working of which one-third of the land is always in fallow. In the south and south-east a system of agriculture peculiar in Russia is in operation; it is called the "fallow system," and consists in raising three or four consecutive crops from the same land, and afterward allowing it to lie fallow for five or six years, after which time it begins to grow feather-grass (*Stipa pennata*), which is considered a token of returning fertility. A great drawback to the development of agriculture is the want of proper means of communication, and consequently the low price of corn in the locality in which it is grown. Fodder-grass is rarely cultivated, as a sufficient supply of fodder is afforded by the extensive natural meadows. The chief cereals are wheat, which is grown as far north as lat. 62°, rye, barley, and oats. Buckwheat and millet are grown in the south, and from these, but specially from rye, the staple food of the inhabitants is made. Hemp and flax are extensively cultivated, and the oil extracted from the seeds of the former is an indispensable article of the peasant's household, as it is used for food during the fasts, which, taken together, extend over about half the year. Tobacco crops cover about 16,000 acres. Beet-root and maize are also cultivated, and there are numerous vineyards in the Crimea, Bessarabia, and along the Don. Gardening is an important branch of industry, the products being cucumbers, onions, cabbages, and other vegetables and fruits. An area of 486,000,000 acres is covered with woods, but the quantity of timber, from which material the peasant supplies almost all his wants, is at present suffering diminution. Coniferous trees are the chief in the northern districts, but in the central tracts oaks, limes, maples, and ashes are the chief. Timber is the chief article of internal commerce, and is floated down the rivers from the well-wooded districts to those which are destitute of wood.

Animals and Animal Products.—In the northern and central provinces cattle are kept chiefly for the purpose of obtaining manure, but in other parts cattle-breeding is an important branch of industry. On an average there are 30,000,000 head of cattle in Russia. Of horses the best, chiefly trotters, are reared in breeding-stables in the southern central governments, but the great bulk of the horses are obtained from the half-wild studs of the Cossacks, Kalmucks, and Kirghiz. The horses of Viatka, Kazan, and Finland are strong and hardy. The total number of the horses in Russia is about 18,000,000. Sheep-breeding is carried on extensively on the southern steppes. The sheep number 10,000,000, of which upward of 1,000,000 are of the fine merino breed. Besides these animals, there are camels in the south of Russia, reindeer in the north, and hogs and poultry in

great abundance everywhere. A breed of the urus—a huge and rare animal which does not occur in any other country—is preserved in a forest of the government of Grodno. Among the wild animals are (chiefly in the north) the bear, wolf, elk, fox, and marten; on the northern coasts are found the seal and walrus and the eider-duck and other wild-fowl. The more expensive kinds of furs are procured from Siberia.

The most important Russian fisheries are those of the Caspian and Black Seas and the Sea of Azof and their tributaries. The Baltic Sea is not remarkably rich in fish, but the produce of the adjoining lakes is much more considerable. The herrings, cod-fish, and salmon, caught in abundance in the White Sea, constitute the chief resources of the inhabitants of the adjoining districts. Bee-culture is very general in Russia. Silkworms are reared chiefly in the Caucasus.

During the year 1874, according to official returns, the state foundries smelted 1,225,000 Russian pouds* of bronze, 557,000 pouds of iron, and 1000 pouds of steel; 89,000 pouds weight of articles in bronze were cast, and 508,000 pouds weight of ammunition, 9000 pouds weight of steel cannon and 15,000 pouds weight of iron cannon, besides which 15,000 pouds of lead and 6600 pouds of zinc were smelted. There were also made 7800 pouds weight of iron articles, 10,000 pouds sheet-iron, and 7500 roubles'† worth of iron for use in shipbuilding, and 46,700 side-arms, 20,000 blades, and 5725 gun-barrels. The amount of metal passing through private factories is given approximately in the same official returns. They state the estimated products of the smelting establishments of the Ural at 13,200,000 pouds of bronze, 1,017,000 pouds of iron, 69,000 pouds of steel, and 100,000 pouds of copper. Those around Moscow are supposed to have produced 3,360,000 pouds of bronze and 1,830,000 pouds of iron. South Russian produce is estimated at 430,000 pouds of bronze and 440,000 pouds of iron; that of the Polish provinces at 1,370,000 pouds of bronze, 800,000 of iron, and 120,000 of zinc. Lastly, 44,000 pouds of copper is estimated as the return from the Caucasus. During 1874 gold to the amount of 1806 pouds was extracted, without reckoning the districts of Altai and Nerchmst, which yield an annual average of 165 pouds. The total amount of coal raised in 1874 was 83,375,000 pouds. The extraction of mineral oils in the Caucasus shows a great increase, and oil-wells have lately been discovered in the government of Kielce, Poland. Small handicraft manufacturing establishments abound in all the central governments, especially in the neighborhood of Moscow, where whole villages during the winter season are employed in some special industry, as weaving, tanning, fur-dressing, joiners' work, shoemaking, etc. The chief manufacture is spinning and weaving flax and hemp. Linen is manufactured to the value of 100,000,000 roubles, chiefly in hand-looms, although the finer qualities are manufactured by power-looms, mostly in the governments of Jaroslav and Kostroma and the capitals. Hemp is manufactured into sailcloth and ropes, which articles are largely exported. Woolen and worsted stuffs are made to the value of 50,000,000 roubles, and the quantity is on the increase. Fine cloths and mixed fabrics are made in the capitals, and in the governments of Livonia and Tchernigov. Silk-spinning and weaving are carried on in the factories of Moscow, which is renowned for its brocades and gold and silver embroideries.

In 1870 there were 158 cotton-spinning mills, producing goods to the value of 53,350,000 roubles, and weaving establishments with an annual product of 13,000,000 roubles. The next most important branch of industry is tanning, the products of which amount to 20,000,000 roubles. Other important branches of industry are cutlery, pottery, and glass-works. The produce of the machine-factories in 1870 did not exceed 15,000,000 roubles; of the sugar-refineries 27,250,000 roubles; of the paper-mills 5,750,000 roubles.

The following table shows the imports and exports during the year 1873:

* The *pud* or *poud* = 36 lbs. avoirdupois. † One rouble = 77 cents, gold.

	IMPORTS ROUBLES.	EXPORTS. ROUBLES.
Baltic ports,	232,900,000	140,494,000
White Sea ports,	981,000	7,913,000
Southern Sea ports,	61,070,000	89,343,000
Land frontier,	117,524,000	108,108,000
Total, Europe,	412,475,000	345,858,000
" Asia,	20,958,000	9,757,000
	433,433,000	355,615,000

By far the largest portion of exports consisted of cereals.

The merchant navy of Russia consisted, at the end of the year 1874, of 2512 seagoing vessels, of an aggregate burden of 521,008 tons. Included in the total were 621 ships engaged in trading to foreign countries, and 1672 coasting-vessels, many of them belonging to Greeks, but sailing under the Russian flag. Not included in the return were 385 river and lake steames.

The government of Russia is an unlimited monarchy, the head of which is the emperor, who unites in himself every authority and power—that is to say, is the head of the military, the legislative, and the judicial systems, and is also the ecclesiastical chief of the orthodox Greek Church. The order of succession is by primogeniture, hereditary in heirs-male, and in females in default of males. Every military or civil officer of the crown is required to take an oath of allegiance. The council of state is the highest branch of the executive, and comprehends the legislative, judicial, and administrative powers. The president and members—among whom are always included the ministers of the crown—are appointed by the emperor. A secretary of state, whose duty it is to report the opinion of the council to the emperor, is attached to this body. The estimates of expenditure and income, and every proposition introducing an addition to or a modification of the laws, are considered and revised by this council.

European Russia is divided into 50 provinces, over each of which is a governor appointed by the emperor. Some of these provinces, although administered by governors, are united under a governor-general. The governor-generalships are generally the remote frontier regions.

The nominal strength of the various divisions of the Russian army, according to the returns of the ministry of war, was as follows in 1874:

	PEACE FOOTING.	WAR FOOTING.
Regular army,	457,872	808,670
Army of first reserve,	180,740	127,923
Army of second reserve,	207,812	276,664
Total,	846,424	1,213,257

The navy comprised, in 1875, 223 vessels, of 188,120 tons burden, and carrying 561 guns. This included an iron-clad fleet of 29 vessels, of 9210 horse-power, 74,793 tons burden, and carrying 184 guns.

In the budget for 1875, the revenue is estimated at 559,361,193 roubles, and the expenditure at 556,105,410 roubles.

In 1875 the public debt was stated as 2,409,739,996 roubles, against which there was a credit, consisting of advances made to railway companies, etc., of 634,489,942 roubles.

The total length of railways at the end of the year 1874 was 13,227 English miles. Nearly one-half of the railway property was held by the government.

The post-office, in the year 1874, conveyed 59,529,000 letters, 1,300,000 post-cards, 2,218,000 wrappers, 1,493,000 parcels, and 29,020,000 newspapers. There were 3191 post-offices. The total receipts for the year 1874 did not cover the expenditure.

The length of telegraph lines, Jan. 1st, 1875, was 31,459 English miles, and the length of wires 58,675 miles. About five-sixths of the total belonged to the state. The total number of telegrams in 1874 was 3,512,003.

The following table shows, after official returns, the number of educational establishments in Russia, maintained either wholly or in part by the government, and placed under the Minister of Public Instruction, at the end of the year 1870:

	NUMBER.	PUPILS.
Universities,	8	7,275
Lyceums,	2	262
Veterinary schools,	2	154
Gymnasia and progymnasia, { for males,	153	58,478
Gymnasia and progymnasia, { for females,	173	
Training schools for teachers,	39	1,274
District schools,	419	27,508
Primary schools,	22,827	831,402
Total,	23,623	926,353

Commission from RUSSIA to the International Exhibition:

ALEXANDRE BUTOWSKY, Privy Councillor, Director of the Department of Commerce and Manufactures, President.

DMITRI KOBEKO, Privy Councillor; Chief of Cabinet; Ministry of Finance.

NICOLAS YERMAKOFF, Actual Councillor of State; Vice-Director of the Department of Commerce and Manufactures.

CHARLES DE BIELSKY, Actual Councillor of State; Commissioner-General.

ICAN WISCHNEGRADSKY, Actual Councillor of State; Director of the Technological Institute of St. Petersburg.

MICHEL PODOBEDOFF, Actual Councillor of State; Ministry of Finance.

ALEXIS BEHR, Actual Councillor of State; Ministry of Finance.

NICOLAS ILJINE, Councillor of State; Professor in Technological Institute of St. Petersburg.

DMITRI TIMIRIASEF, Councillor of State; Ministry of Finance.

Executive Committee at Philadelphia.

CHARLES DE BILLSKY, Actual Councillor of State, Commissioner-General.

BARON GUSTAV NOLCKEN, Delegate; Ministry of Finance.

EMILE DE LERCHE, Delegate; Ministry of Finance.

ALEXANDRE GOLDECHEN, Delegate; Ministry of Finance.

CHARLES BRECKMANN, Delegate; Ministry of Finance.

LEON WARSCHAWSKY, Delegate; Ministry of Finance.

ALEXANDRE PLETNEFF, Delegate; Ministry of Finance.

PIERRE ORLOFF, Secretary.

CHARLES SCHOENICH, Engineer, Inspector of the Russian Section.

OTTO KITZING, Special Secretary.

ERNEST PELLETIER, Attaché.

INDEX OF EXHIBITORS.

DEPARTMENTS VI., VII.

A.

A——, J. C., Cotton, 74.
Aass, P. L., Beer, 62.
Abad, G., Wheat, 88*d*.
Abadia, N., Bros., Wines, 88*t*.
Abarca, G. V., Fig bread, 88*q*.
Abattoir of Lisbon, Manures, 122.
Abbott, C. F., Plants, 152.
Abecassis Brothers, Wine, etc., 115.
Abeles, Heinrich, Wine, 55.
Abell, John, Portable engine, 46.
Abelló & Son, Wine, 88*aa*.
Abello y Boada, P., Nuts, 88*b*.
Aboim Joao, C. de S., Cheese, etc., 100.
Abolana, A. D., Maize, 88*c*.
Abramoff, Tobacco, etc., 124.
Abrancalha, Abrantes, Viscount da, Olives, 91; Grain, butter, 96.
Abrantes, Viscount da A., Oil, 119.
Abratnoff, P., Linseed, 124.
Abreiro, Joao Vaz de, Wine, 113.
Abreu, Antonio de, Wine, 108.
Abreu, Carlos de Souza Pinto, Wine, 116.
Abreu, Francisco Antoine Maxino, Wine, 108.
Abreu, Francisco José de, Wine, 113.
Abreu, Francisco Rodrigues de, Beans, 97.
Abreu, Honorato J. M., Wine, etc., 116.
Abreu, J. L. C. de, Oil, 118.
Abreu, J. Monteiro d', Cigars, 70.
Abreu, José Martens de, Honey, 101.
Abrigada, Viscount of, Wines, 110.
Abrikosoff's Sons, Preserves, 125.
Abrunhosa, J. C. de, Cheese, etc., 100.
Acacio Manuel Pereira, & Augusto, Flour, 106.
Academy of Natural Sciences, Birds, etc., 18.
Acapulco, Marquis of, Olive oil, 88*ff*.
Acari, Commission for, Resins, 68.
Acciole, Joao da Fonseca, Corn, 93.
Accioli, Joao da Fonseca, Vinegar, 116, 118.
Acclimatization & Agri. Society, Honey, 63.
Acebal y M., Chocolate, 88*dd*.
Acebedo, F., Wine, 88*u*.
Ackerman, C. & B. G., Fibres of tucum, 75.
Ackermann, L., Liqueurs, 54.
Acosta, Maria E. de, Candied quinces, 84.
Acton, M., Egypt, 252.
Acton Plow Co., Plow, 46.
Acuna, Francisco, Barley and corn, 78.
Acuña, P. G., Cow tripes, 82.
Adams, P. F., 189.
Adams, R., New South Wales, 180.
Adelino, Joao Manuel Joaquim, Honey, 101.
Adgaté, J. J., Wagon, 135.
Administrado do Canselho, Grain, 95; Wax, 102.
Administration Council, Mangualde, Timber, 90.
Administrative Council, Cantanhede, Seeds, 99.
Administrative Council, Castro Daire, Timber, 89.
Administrative Council, Coimbra, Fruits, 97.
Administrative Council, Guimaraes, Grain, 95.
Administrative Council, Lausado, Fruit, 105.
Administrative Council, Montemor o Velho, Grain, 94; Vinegar, 114.
Administrative Council, Penacova, Timber, 89.
Administrative Council, Vourella, Timber, 89.
Adorno Puma, Cav. Gaet., Wine, 66.
Adriance, Platt, & Co., Reapers, mowers, 28.
Adriano, L. A., Yuro, 130.
Adriatano, Luciano M., Cabo negro, 133.
Adrid, A., Claret, 88*x*.
Affonso, Domingos Arialva, Wines, 106.
Affonso, Joao Hilario, Wine, etc., 108.
Agelét, R., Walnuts, 88*a*.
Ageret, H., Liquors, 86.
Agero, J. D., Wool, 88*jj*.
Agner, L., Matte, 71.
Agnew, Eisenbeis, Vinegars, 22.
Agnew, Hannah M., Banana, 152.
Agnini, Tommaso, F. E., Liquors, 66.
Agosti Brothers, Dried prunes, 64.
Agostini, Count Alfredo, Wine, 65.
Agramunt, Corp. of, Cereals, 88*e*; Oil, 88*f*.
Agrarian Committee, Wine, 65.
Agrarian Committee of Chiavari, Cheese, 63.
Agrarian Colony of S. Martino, Grains, 63.
Agricultural Association, Products, 57.
Agricultural Committee of Palermo, Seeds, 63.
Agricultural Institute, Wool, 75.
Agricultural School, Oats, rye, and barley, 61.
Agricultural Union, Brandies, 51.
Agriculture, Classification of, 11.
Agriculture, Practical School of, Beets, 88*l*.
Aguado, J. de D., Vegetables, 88*i*.
Aguero, Patricia, Musk raisins, 84; Syrup, 85.
Aguila y Aguila, S., Olives, 88*b*; Olive oil, 88*ee*; Hemp, 88*ii*.
Aguilar, Bernardo Teixeira de, jr., Wines, 106.
Aguilar, F. D., Woods, 76.
Aguilar, J. M., Carob paste, 84.
Aguilar, Juan M., Red corn, 78.
Aguilar, O., Wheat, 79.
Aguirre, S., Honey, 88*p*.
Agulló, F. F. & Bros., Wines, etc., 88*t*.
Ahamada, B., Wheat, 79.
Ahern, J. H., Flower pots, 157.
Akerman, A. R., Sweden, 240.
Akin, W. H., & Son, Hops, 136.
Alagoas, Province of, Wool, 74, 75.
Alba, D. S., Wheat, 88*g*.
Alba, T., Wine, 88*y*.
Albany Lubricating Compound & Cup Co., Oil cups, 139.
Albarez, F., Walnuts, 77.
Albarracin Saturnio, Wax, 84.
Albear y Ward, F., Prunes, 88*q*.
Albemarle Swamp Land Co., Shingles, 15.
Albergaria, T. A. P., Corkwood, 89; Grain, 93; Beans, 99, 101, 120.
Albergotti, Geo., & Agostino Bros., Wine, 66.
Albert, A. P., Wines, 88*s*.
Albert, Perez, & Co., Vinegar, 88*t*; Olive oil, 88*dd*.
Albi y Ginér, A., Vinegar, 88*s*.
Albiate, Edward, Casks of duca, 65.
Albion Coffee Huller Co., Machines, 32.
Albir, B., Rice, 131.

Albornoz, J. G., Plows, 88*jj*.
Albors, C., Wine, 88*bb*.
Albors y Albors, C., Olive oil, 88*hh*.
Alborts y Alborts, C., Carrobs, 88*l*.
Albuquerque, A. de Sa, Coffee, 69.
Albuquerque, Manuel Lopes, Wine, 116.
Alcacer, Viscount of Sal, Wine, 116.
Alcacovas, Count of Paco d'Arcos, Wine, 108.
Alcalde, J., Olive oil, 88*ff*.
Alcantara & Brus., Leather, 100.
Alcántara, D., Cocoa, 131.
Alcantara, F. A. M. de, Cheese, etc., 97, 100.
Alcaraz, M. de, Beans, 88*k*.
Alces, Geo., Cigars, 17.
Alcoforado, Maria H. S., Wine, 114.
Alder, M., Charcoal, 44.
Aldrich, Isaiah, Capping machine, 34.
Aldrich, P. W., Birds, 18.
Alegre, John, Mate, 80.
Alegret, E. P., Olive oil, 88*dd*.
Alegret, F., Mistela, 88*u*.
Alejano, S. F., Wheat, 88*i*.
Alenda, A., & Son, Brandy, 88*t*.
Alentem, Administrator of, Flax, 120.
Alexandre, Joaquim Peres de, Wine, 113.
Alexandre, Manuel, Wine, 113.
Algar, F. L., Olive oil, 88*ee*.
Algar, J. R. de, Wine, 88*w*.
Alguacil, M. P., Olive oil, 88*ee*.
Alhorque & Barkes, Esparto grass, 88*hh*.
Allain, J., Kid, 49.
Allegatoire, Geraniums, 157.
Allen, Elisha H., jr., Hawaii, 261.
Allen, Frederick, & Sons, Confectionery, 41.
Allen, George, & Co., Port wine, 106.
Allen, Hon. G. W., New South Wales, 179.
Allen, J. F., & Co., Tobacco, 17.
Allen, R. H., & Co., Plows, etc., 26; Barrows, 37; Sowers, 152.
Allen, Rebello Volente, Honey, etc., 102.
Allen, S. L., & Co., Tools, 27.
Allen's, Josiah J., Sons, Fertilizers, 36.
Allison & Sons, Wrought iron, 9.
Allones, R., Tobacco, 88*m*.
Allurralde, P. y C., Horsehide, 83.
Allustante, M., Skins, 88*o*.
Almagro, S. C., Liquors, 88*x*.
Almansa, E. T. de, Wines, 88*z*.
Almanzan, Corporation of, Cereals, 88*h*.
Almeida, A. R. de, Vegetable fibres, 75; Oil, 118.
Almeida, Antonio Joaquim de, Timber, 89; Corn, 92.
Almeida, Antonio Mendes, Grain, 92.
Almeida, Augusto de Asevedo, Corks, 90.
Almeida, Bernardo Caieiro de, Olives, 105.
Almeida, Francisco Aleas, Corkwood, 89; Oil, 118, 119; Wines, 118.
Almeida, Francisco de Mattos, Wax, 101.
Almeida, Francisco M. de, Wine, 106.
Almeida, Ignacio Bernardino de, Wines, 113.
Almeida, Jacintho Pacheco, Woods, 89.
Almeida, Joaquim Ribeiro, Corkwood, 90; Corn, 92; Grain, 94; Flax, 120.
Almeida, Jose Bernardo de, Wine, 114.
Almeida, M. d', Oil, 118; Flax, 120.
Almeida, Manuel Lorenco, Wine, 113.
Almeida, S. S. de, Oil, 119.
Almeida, Silva, & Co., Oil, 118.
Almida, Joaquin S. Momao, Honey, 101.
Almodóvar, A. S., Preserves, 88*b*; Wines, 88*t*.
Almonacid de Jorita, Corp. of, Hemp, 88*ii*.
Alonso, B., Widow of, Chocolate, 88*cc*.
Alonso, B. R., Wine, 88*cc*.
Alonso, Julian, Cereals, 88*d*.
Alonso, Manuel, Wheat, 78.
Alonso, P. A., Chocolate, 88*cc*.
Alos, F., Wheat, 88*e*; Wine, 88*x*; Oil, 88*ff*.
Alric, A., Corn, 79; Flour, etc., 85.
Alsina, J., Wines, 88*s*.
Altemir, J., Wheat, 88*e*.
Altenkirch, F., Wines, 53.
Althayde, Luis da Silva, Wine, 116.
Alto Sub-commission, Corn, 79.
Alurralde, R., Skins, 83.
Alvarenga, Dr., Flour, 72.
Alvares, S., Wine, 88*r*.
Alvares, Sebastido, Wine, 108.
Alvarez, Cruz, Cumin seed, 80.
Alvarez, F., Wine, 86; Cotton, 87; Wheat, 79.
Alvarez, F. R., Esparto grass, 88*hh*.
Alvarez, J., Tobacco, 88*m*; Wine, 88*z*.
Alvarez, J. M., Honey, 88*p*.
Alvarez, R. C., Olives, 88*j*; Olive oil, 88*ee*.
Alvarez, S., Wheat, 79.
Alvarrao, Joao do Bomsucesso, Seed, 94, 97.
Alvear, C., Wine, 88*w*.
Alvear y Ward, F., Wine, 88*w*.
Alves, Assiz, Coffee, 71.
Alves & Bros., Liquors, 74; Macaroni, 106.
Alves, Francisco, Wine, 114.
Alves, José Martins, Beans, 97.
Alves, L., Pharmaceutical preparations, 75.
Alvim, Joao C. de S., Seed, 94; Mustard, 97; Linseed, 99; Cheese, etc., 100.
Aly, A., Barley, 53.
Alzric, A., Lemonade, 86.
Amador, A., Wheat, 88*c*.
Amafil, Benigno, Yellow corn, 78.
Amaral, Antonio da Costa, Red wine, 106.
Amaral, Antonio Gomes Silva do, Wine, 114.
Amaral, Bernardo Rodriques do, Wine, 114.
Amaral, F. do, Coffee, 71.
Amaral, Leonor Carvalho Fonseca, Wine, 114.
Amaral, Pedro d'Albuquerque S., Wines, 114.
Amaral, R. J. do, Liquors, 73.
Amato Bros., Candied fruits, 64.
Amazonas, Province of, Medicinal plants, 71; Brooms, guano, 75.
Amell y Carbonell, J., Wines, 88*u*.
American Champagne Co., Wines, 22.
American Condensed Milk Co., Milk, 19.
American Desiccating Co., Cocoanut, 20.
American Shearer Mfg. Co., Machines, 38.
American Wine Co., Wines, 22.
Ames, Manning, & Ames, Bone meal, 36.
Ames, Oliver, & Sons, Shovels, etc., 26.
Amor, B., Wines, 88*y*.
Amores, J., Chocolate, 88*dd*; Hemp, 88*hh*.
Amores, M., Cereals, 88*g*; Vegetables, 88*k*; Wine, 88*z*.
Amorós, J. E., Wine, 88*t*.
Amorós, V., Wine, 88*aa*.
Amposta, Corporation of, Rice, 88*h*; Carrobs, 88*l*; Olive oil, 88*gg*.
Amundson, Mrs. C. M., Oyster anchovy, 59.
Ancasti, Sub-commission of, Corn, 79.
Anchor Manufacturing Co., Barrels, 35
Ancion, A., Belgium, 228.
Andalgala Commission, Dyes, 76.
Andalgalá Sub-commission, Skins, 82.
Andrade, A., Wine, 88*y*.
Andrade, M. Z., Wheat, 88*g*; Olive oil, 88*gg*.
Anderson, A., Straw cutters, 46; Knives, 47.
Anderson & Campbell, Canned fruits, 19.
Anderson, J., Cow and sheep bells, 60.
Anderson, J., LL.D., Great Britain, 173.
Andes, Mendez M. de, Cigarettes, 81.
Andesson, Gustaf, Anchovy and sardines, 59.
Andrada, A. G. de, Preserved meat, 104.
Andrade, Adriano Peguito Seixas, Rice, 93.
Andrade, Antonio Garcia de, Corkwood, 90.
Andrade, Basilio A. X. de, Wine, 113.
Andrade, Bernardo A. da S., Wine, 114.
Andrade, Francisco B. d'Almeida, Beans, 97.
Andrade, Ildefonsode, Barks, 68.
Andrade, J. C. Paes de, Glue, 72
Andrés, L., Wheat, 88*f*.
Andresson, J. H., Wine, 114.
Andrew, R., Wheat, 88*e*.
Andrews, E. W., South Australia, 184.
Andronico, Giuseppe, Biscuits, 66.
Anfrye, Capt., France, 209.
Angas, F., Wheat, 88*i*.
Angelica, Rosa de J. M., Preserved fruits, 104.
Angelina, Directory Board of, Corn flour, 72.
Anglés y Font, J., Wine, 88*aa*.
Anguera y Anglés, Nuts, 88*b*; Wine, 88*bb*.

Angulo, J., Olive oil, 88*gg*.
Anheuser, E., Co.'s Brewing Association, Malt liquors, 137.
Anievas, J. M., Maize, 88*c*.
Anisdahl, R. O., Drops and peppermint, 62.
Anlestia, J., Hazelnuts, 88*b*; Wine, 88*bb*.
Annapolis Canning Co., Canned goods, 20.
Annear, John, & Co., Sauce, 20.
Annes, Antonio Joaquim, Grain, 95.
Añora, Corporation of, Acorns, 88*n*.
Anselmi & Marassi, Alcohol, 65.
Anstey, G. A., Wool, 42.
Anta, I., Cereals, 88*f*; Beans, 88*k*; Nuts, 88*q*.
Anta y Temes, F., Wines, 88*y*; Chocolate, 88*dd*.
Antao, Manuel Antonio, Wheat, 92.
Antheaume & Sons, Caramels, 50.
Anthoine, Wines, 50.
Antigue, Provincial Board of, Rice, 130.
Antonio, Eduardo M., Preserved meat, 105.
Antonio, Eduardo Montalvas de, Acorns, 91.
Antonio, M. de, Glue, 88*o*.
Antonio, Nicolau d'A., jr., & Bro., Wine, 114.
Antonio Nunes de Souza & Co., Wines, 116.
Antunes, J. A., Coffee machine, 75.
Appleton, Wm., Malt, 136.
Appleyard, Juan B., Rice, 80.
Appleyard, T. B., Tobacco, 80; Flour, 85.
Aragao, Alexandre A. de, Vinegar, 114.
Aragao, Alexandre de, Wines, 113; Oil, 118.
Aragao, Francisco de Pina, Wines, 108.
Aragon, Innocencia, Syrups, 132.
Aragon, J. M., Honey, 84.
Aragon, S., Tobacco, 80.
Aragonés, J. S., Wine, 88*bb*.
Aragonés, R. Z., Wine, 88*aa*.
Aragonés, T., Wines, 88*aa*.
Aranha, J. D., Tobacco, 70.
Araob, Adelaida, Grape syrup, 85.
Araraguara, Baron de, Coffee, 71.
Araujo, A. J. de, Oil, 119.
Araujo, A. J. Roiz d', Medicinal plants, 69.
Araujo, Bernardo, Corn, 92.
Araujo & Brother, Flour, 95.
Araujo, Castro, Wax, 68.
Araujo, I. de, Liquors, 73.
Araujo, J. A. Vieira, Honey, 72.
Araujo, Joaquim Cardosa de, Wines, 106.
Araujo, J. P. de Souza, Medicinal plants, 69.
Araujo, J. Pereira de Sz., Wax, 72.
Araujo, Rodrigues de, Medicinal plants, 69.
Araujo & Silva, Samples of woods, 68.
Arce, Invencio, Corn, 78.
Archdeacon, W., Pickles, etc., 20.
Archer, Jacintho F., Corks, 89.
Archer, Prof. T. C., Great Britain, 173.
Archleb, Josef, Liquor, 55.
Arenales, A. M. Alvarez de, Seed, 81.
Arenas, A. R., Brandy, 88*z*: Olive oil, 88*gg*.
Arenzana, Son of, & Co., Wool, 88*jj*.
Arganza, Corporation of, Cereals, 88*e*; Vegetables, 88*f*; Wines, 88*x*.
Argentine Republic, Statistics of, 264.
Argona, J., Cocoons, 88*u*.
Argoncillo, Eustaquio, Fibres, 133.
Argoncillo, R., Coffee, sugar, 131.
Arguellos & Oliver, Loaf sugar, 85.
Argüeso y Argüeso, L. de, Wine, 88*u*.
Arias, F., Sheepskin, 82.
Arias, F. G., Wine, 88*cc*.
Ariño, A., Anise seed cordial, 88*ee*.
Ariza y Ariza, J., Wheat, 88*d*.
Arjona, M. J., Olive oil, 88*dd*.
Arjona y Gomez, J., Pepper, 88*m*.
Arlès, D., Silk, 51.
Armas, A., Coffee, 88*m*.
Armenchiardi, Juan, Wheat, 80; Flour, 85.
Armengod, J., Hempen ropes, 88*ii*.
Armesto, R., Wheat, 88*f*.
Armistead, Louis L., Tobacco, 17.
Armstrong, E. F., Fanning mill, 46.
Armstrong, H. M., & Co., Pork products, 19.
Armstrong, Hon. W. J., Canada, 204.
Armunia, Corp. of, Wine, 88*x*; Flax, 88*ii*.
Arnal, D., Claret, 88*x*; Olive oil, 88*ff*; Esparto grass, 88*ii*.
Arnau & Tomas, Olive oil, 88*ee*.
Arnault, A., Skins, 82.
Aroca, J., Wine, 88*s*.
Arpal, M. V., Olive oil, 88*hh*.
Arque, B., Rice, 130.
Arqueaga, R., Grits, 88*r*.
Arribas, A. E., Wine, 88*v*.
Arribas, I. A., Vetch, 88*i*.
Arrigunaga, F., Tobacco, 88*m*.
Arrillaga, Javier, Mate herb, 80.
Arrom, L. L., Preserves, 88*p*.
Arrondo, A., Wheat, 79.
Arrue, M., Wheat, 88*h*; Beans, 88*l*.
Artacho, J. B., Wine, 88*x*.
Artasa, M., Corn, 79.
Artaza, S., Wheat, 79.
Arteaga, Amancio, Shells, 81.
Artells, M., Almonds, 88*b*.
Artigues, S., Raisins, 88*r*; Wine, 88*bb*.
Artiles, M. H., Olive oil, 88*ee*.
Arzadum & Co., Fish, 88*o*; Meat, 88*q*.
Asada, T., Tea, 128.
Asambuja, A. M. da, Wine, 118.
Asay, C., Tobacco, 88*m*.
Asay & Wood, Combined corn planter, 28.
Asaya, T., Hemp, etc., 129.
Ascaso, D., Chocolate, 88*dd*.
Ascoitia, Higenio de, Flour, 88*r*.
Asensio, R., Potatoes, 88*m*.
Asevedo, Joao Rodigues de, Wheat, 96.
Asevedo, José de, Beans, 97; Wine, 113.
Asevedo, José Ferreira da Silva, Wine, 113.
Asevedo, M. de L., Oil, 119.
Ashbourne, Alex. P., Pulverized cocoanut, 19.
Ashbourne & Co., Cosmetics, 39.
Ashley, H. A., Machine, 36.
Ashley & Smith, Cheese press, 46.
Asmoloff & Co., Tobacco, etc., 124.
Aspden & Pritchard, Oatmeal, 44.
Asphalt Mining Co., Asphaltum, 48.
Aspiroz, R. V., Seeds, 88*n*.
Assis, Domingos Francisco de, Wine, 108.
Assiz, F. d', Coffee, 71.
Assunguy, Colony of, Tobacco leaves, 70.
Aste, D. Stefano, Albumen, 63.
Asten, W. B., & Co., Malt bags, 138.
Astorga, P. G., Cereals, 88*c*.
Asuero, E., Bark, 130.
Atalya, Count of Santarem, Honey, 104.
Athayde, M. E. S., Skins, 72.
Athayde, M. E. Souza, Cotton, 74.
Atibaia, Baron of, Coffee, 69.
Atkins, J. L., Horse shoes, 38.
Atkinson, Empson, Road scraper, 36.
Atlantic Co. for the Culture of Cranberries, 15.
Atlen, Rebello Volente, Honey, etc., 101.
Atmore & Son, Mincemeat, etc., 19.
Atterling, C., Dairy apparatus, 60.
Attwood, A. C., Beehive, 46.
Aubin & Baron, Millstones, 52.
Aubone, Daniel, Beans, 80.
Auburn Mfg. Co., Implements, 25.
Auchmann, F., Champagne, 55.
Audielo, M., Potatoes, 80.
Auer, Josef, Vine shears, 56.
Aufion y Leon, Cereals, 88*g*.
Augier, U., Wine, 86.
Augier, Uladislao, Cumin seed, 80.
Aula, Domenico, & Co., Sumac, 63.
Aultman, C., & Co., Mower, 31.
Aultman, Miller, & Co., Mower, 29.
Aumüller, J., Wines, 53.
Aurajo, A. C. de, Biscuits, 118.
Aurea y Rivera, Antonio, Wheat, 88*d*.
Ausable Horse Nail Co., Nails, 38.
Austin, R., Vines, 155.
Austin, Tomlinson, & Webster Manufacturing Co., Lumber wagons, 135.
Austria, Statistics of, 216.
Austrian Commission, Scythes, 56.
Avansay, H., & Son, Wine, 88*z*.
Avelino, Joaquin Cumieira, Wine, 114.

Aveling & Porter, Engine, 41.
Avellino, Antonio, Sardines in oil, 63.
Avello, A., & Son, Olive oil, 88*hh*.
Avelló y Boada, P., Wine, 88*aa*.
Avery, B. F., & Son, Plows, etc., 26.
Avila, Elenterio, Mexico, 274.
Avila & Marti, Wheat, 88*k*.
Avilés, N., Wines, 88*v*.
Avilez, Count of, Oil, 120.
Aviléz y Merino, F., Seed, 88*n*.
Axe, Edwin C., Birds, 18.
Ayaz, J. D., Olive oil, 88*dd*.
Aybar, J. R., Grape syrup, 85.
Ayrosa, M. A., Coffee, 71.
Azeveda, Manuel Rodrigues de, Wine, 108.
Azevedo, Antonio Joaquin, Brazil, 263.
Azevedo, Antonio L. de N., Wines, 114.
Azevedo, P. de, Aguardente, 73.

B.

B——, A. A., Cotton, 74.
Baars, H., Norway, 243.
Baca, John, Wheat, 78.
Baca, V., Brandy, 86.
Bacas y Estévez, I., Wine, 88*u*; Oil, 88*dd*.
Baccarani, Pio, Italy, 249.
Bach, A. H., Wines, 53.
Bäcker & Fier, Brandies, 54.
Badham, Rev. C., New South Wales, 180.
Baerla, M. P., Olive oil, 88*hh*.
Bageau, H., Glue, 49.
Bagley, M. S., Bitters, 85.
Bagley, M. S., & Co., Biscuits, 86.
Baguena, J., Pepper, 88*m*.
Bahamas, Statistics of, 188.
Bahamonde, A. V. G., Wines, 88*z*.
Bahia, Presidency of, Cigars, 70.
Bahia, Province of, Cigars, 71; Chocolate, 74; Vegetable hair, 75.
Baigorra, José, Wild cocoa, 81.
Bailey, Samuel M., Plug tobacco, 17.
Bailey Wringing Machine Co., Machines, 34.
Baillo, J. M., Olive oil, 88*ff*.
Bailly & Co., Millstones, 48, 52.
Bailo, A., Liquors, 88*cc*.
Bain, J. D., Mackerel, 45.
Bairrada Commercial Wine Co., Wines, 113.
Baiza, Miguel de Sousa, Wine, 108.
Baker, Joseph P., Horseshoes, 38.
Baker, Walter, & Co., Cocoa preparations, 23.
Baklanoff's, K. K., Sons, Wool, 127.
Bal, J. J., Red currant wine, 58.
Balaguer, J. E., Wines, 86.
Balaguer, Tristan, Corn, 78.
Balanzátegui, C., Wine, 88*s*.
Balban, N., Resin, 77.
Balbas, J., Wine, 88*z*.
Balcarce, G., Skins, 82.
Balderston, G., Vases, 153.
Baldini, Agostino, & Co., Sole leather, 63.
Baldovi, R. G., Carrobs, 88*l*.
Baldwin, Homer, Flour, 22.
Baldwin, Mrs. M. W., Plants, 152.
Ball, J., Cereals, 88*e*.
Ball, J. A., Olive oil, 88*ff*.
Ball, James, Sauce, 40.
Ball, Samuel, Grain cradle, 29.
Ballano, F., Wheat, 88*h*.
Ballester y de Torres, L., Wines, 88*t*.
Baltazzi Effendi, Turkey, 288.
Baltimore Pearl Hominy Co., Hominy, 21.
Baltz, J. & P., Beer, 136.
Baluffi, Nicola, & Co., Hides, 63.
Balugera, D., Rice, 79.
Bamberger, H., & Co., Teas, 17.
Baneg, J., Seed, 131.
Banes, Jo., Oil, 132.
Banfi, Giuseppi Flavio, Glue, 63.
Banks, E. H., Oats, 42.
Bannihe, J. H., Grapes, 15.
Banos, B. F. Torreas de, Brazil, 263.
Bañou, F. P., Esparto grass, 88*hh*.
Banson, Arcadio, Danin cord, 133.
Banson, Nicasio, Fibres, 133.
Baptista & Co., Grain, 92; Flour, 106.
Baptista, José Antonio, Honey, etc., 102.
Baptista, José I. de M., Honey, etc., 102.
Baracho, José de Sousa, Red wine, 108.
Barao, José Correa de, Wine, 109.
Barao de Casaes do Douro, Oil, 119.
Barao de Mogadouro, Freixeas, Wine, 117.
Barao de Nellas, Wine, 108.
Barao de Viamonte, Wine, 113.
Barao do Calvario, Wines, 109.
Barao do Salgueiro, Wine, 117.
Baraona, Corporation of, Cereals, 88*k*.
Barber, J., Canned fish, 45.
Barbey, Peter, Beer, 137.
Barbósa, F., Woods, 68.
Barbósa, J. E. C., Oils, 74.
Barbosa, J. F., Woods, 68.
Barbosa, Manuel Carneiro, Grain, 94.
Barbosa, Manuel Paes Ferrao, Wine, 108.
Barbósa, Norpérto, Medicinal plants, 69.
Barboza, Paulo da Silva, Sweetmeats, 105.
Barbudo, Francisco de P., Cereals, 88*d*.
Barcellos, Francisco Maria, Wines, 113.
Barcena, Mariano, Mexico, 274.
Barcos, P. B., Skins, 83.
Barcuys, T., Hazelnuts, 88*c*
Barenys y Magriñá, J. B., Barley, 88*k*.
Barenys y Mariné, J., Vegetables, 88*l*.
Barjona, Pedro Simoes Alfonso, Beans, 97.
Barley & Malt, Com. on, Barley, malt, 136.
Barnard, Bishop, & Barnard, Wire netting, 41; Chairs, 156.
Barnes, Geo., & Co., Mower knives, 29.
Barnett, William, Wheat starch, 22.
Barnhill, B. B., Moosehead, 45.
Barnosell, P., Guano, 88*jj*.
Baro y Gibert, J., Wine, 88*u*.
Baron of Roeda, Portugal, 285.
Baron von Thüngen, Brewery, 54.
Barr, W. S., Bermudas, 190.
Barra, Luigi, Wine, 66.
Barral, J. L., Wines, 50.
Barraquero, Carmen, Wax and honey, 84.
Barreira, Antonio, jr., Wine, 109.
Barrenengoa, D., Coffee, 88*m*.
Barrengoa, D. de, Chocolate, 88*cc*.
Barrera, G., Wine, 88*u*.
Barrera, J. M., Olive oil, 88*ff*.
Barrera, P. G., Starch, 88*s*.
Barreto, jr., Oils, 74.
Barrett, J. O., Eagle "Old Abe," 18.
Barrill, Juan José, Peru, 270.
Barrionueva, F., Cereals, 88*d*; Beans, 88*j*.
Barrios, M., Flour, 88*r*.
Barrios, Rios, & Co., Flour, 88*r*.
Barros, A. A. de, Fibre, 75.
Barros, Antonio Manuel Ferreira, Brandy, 108.
Barros, B. de, Sugar, 73.
Barros, D. A., Cotton, 75.
Barros e Cunha, José de, Wine, 113.
Barros, F. de, Sugar, 73.
Barros, F. F. de, Fibres of tucum, 75.
Barros Gomes, B., Oil, 118.
Barros, J. J. d'A., Medicinal plants, 69.
Barros, José Xavier Pereira, Sweetmeats, 103.
Barros, L. A. de Sz., Coffee, 70.
Barros, L. Gomes de, Cipo matta gente, 75.
Barros, L. X. de, Oil, 118.
Barros, R. de, Coffee, 71.
Barros, Ramon, sr., Chili, 267.
Barros, Rita Candida de, Olives, 104.
Barros, S., Coffee, 71; Cotton, 74.
Barros, Sebastian, Cumin and anise, 80.
Barros, T. da, Coffee, 71.
Barroso, C., Alcohol, 74.
Barroso, P., Sugar, 73.
Barrotaran, J., Skins, 82.
Barrows, Savery, & Co., Steamer, 34.
Barrutia, E., Figs, 88*q*.
Barry, Arnold, & Co., Wheat flour, 43.
Barry & Nephews, Wool, aloes, 43.
Barry, Sir Redmond, Victoria, 182.

Bartels, Mr., Germany, 215.
Barthe, G., Corn, 48; Flour, 49.
Bartlerond, John W., Churn, 35.
Bartolucci-Godolini Brothers, Honey, 63.
Bartram Sewing Machine Co., Mowers, 30.
Basarán, I., Blue vetch, 88*l*; Cheese, 88*o*; Prunes, 88*q*; Wine, 88*bb*; Olive oil, 88*kk*.
Bascon, A., Olive oil, 88*gg*.
Bascuñan Francisco, Beans, 80; Figs, 84.
Bashmakoff, S. D., Liquors, 125.
Bassedas y Andreu, M., Hazelnuts, 88*b*; Carrobs, 88*l*; Olive oil, 88*kk*.
Basset & Co., Kid, 49.
Basset, Nathan, Sifting machines, 32.
Bassi, Medano, & Ugo Bros., Sausages, etc., 64.
Bassoa, José Luis de, Wine and brandy, 109.
Bastarás, A., Wine, 88*a*.
Bastas, Pedro José da Silva, Grain, 94.
Bastida, M., Olive oil, 88*ee*.
Basto, M. J. T., Wine, etc., 115; Flax, 121.
Bastos, M. F., Wine, 88*y*.
Bastos, Manuel José Teixeira, Corn, 93.
Bastos, R., Sugar, 73.
Batalhos, José dos Prazeres, Wine, 108.
Batangas, Provincial Board of, Bark, rice, 130; Cotton, 132.
Batchelor Bros., Cigars, 16.
Bateman, E. S. & F., Cultivator, 25.
Bates, B., Wheat, 78; Almonds, etc., 84.
Bates, Hyde, & Co., Cotton gins, 34.
Batlle y Marca, P., Ropes, 88*ii*.
Batlló Bros., Starch, 88*s*.
Battini, A. P., Leather, 82.
Baudry, M., Egypt, 252.
Bauer, G., Flour 85.
Bauer, O. von, Austria, 221.
Baugh & Sons, Mills, 34; Raw bones, 36.
Bausela, E. G., Chick-peas, 88*l*.
Bautista, M., Wheat, 88*e*.
Bavarian Joint Stock Brewery, Beer, 54.
Bawer, E., Hose, 139.
Bawtenheimer, P. M., Potato digger, 46.
Bayersdorfer, M. M., & Co., Fixtures, 151.
Bayla, J. de la, Land animals, 88*u*.
Bayliss, Edwin, Wheel-harrow, 26.
Bayvet Bros., Skins, 49.
Bazan, V. C., Wine, 88*y*.
Bazergne, Mr., France, 209.
Beadleston, Price, & Woerz, Ale, 137.
Bealey, Samuel, Wool, 42.
Bean, H. & B. F., Marker, 25; Fence, 36.
Beardsley, B. A., Hop press, 137.
Beath, J. R., Birds, 18.
Beatty, Matthew O., Cotton planter, 27.
Beaucourt, F., Wines, 50.
Beca, Agostinho da R., Woods, 90; Seed, 94.
Bechstein & Co., Sugar-cured hams, 20.
Bechtel, Geo., Beer, 137.
Becker, Jacob, jr., Wagon, 135.
Beco, J., Belgium, 228.
Bedell & Conklin, Meal flour, 22.
Beecher, C. T., Whiffletree gear, 37.
Beeler, J., Switzerland, 225.
Beeson, J., & Co., Grain, 15.
Begg, J., Coniferæ, 15.
Beggs, John, & Sons, Wagon, 135.
Behmersd, A., Egypt, 252.
Behr, Alexis, Russia, 294.
Behrensen, T., Wines, 54.
Beita, Valentin, & Co., Tobacco, etc., 80.
Beken, F., Wheat, 79.
Belache, Liquors, 73.
Belcher, J. W., Fruits, 45.
Belcher & Taylor, Machines, 34.
Belem, Silvestre P. C., Preserved fruits, 104.
Belen Sub-commission, Wine, 79, 83.
Beleus, J. L., Coffee, 70.
Belgium, Statistics of, 226.
Bell Brothers, Builders, 9.
Bell, Charles, Plow, 46.
Bell, D., Grain, 123.
Bella, J., Wine, 88*aa*.
Bella Vista, Baron of, Coffee, 71; Cane, 73; Aguardente, 74.
Bella Vista Sub-commission, Woods, 76; Corn, 80; Cocoons, 81; Skins, 83; Cotton, 87.
Bellaire Mfg. Co., Mower and reaper, 29.
Bellantani, G., Bologna sausages, etc., 64.
Bellardi, Dom., & Co., Vermouth, 66.
Beller, Jacob, Wines, 22.
Bellido, N., Walnuts, 88*b*; Wheat, 88*f*.
Bello, Francisco S. C., Wines, 108; Wool, 122.
Bello, Manuel Guci fao, Honey, etc., 101.
Bellocq Bros., Skins, 82.
Bellot, J., & Co., Brandy, 50.
Bellosi, Gio. Batto, Liquors, 66.
Belolipetzky, M., Cakes, 126.
Belpaire, A. J., Belgium, 228.
Beltraa, José de Gouvea de Lucena, Wine, 116.
Beltran y Lopez, J., Hemp, 88*hh*.
Beltran y Rosell, M., Wine, 88*u*.
Beluyos, Damian, Cotton, 132.
Benguet, Provincial Board of, Rice, 130.
Benites, A., & Co., Tallow, 83.
Benito, I., Flour, 88*r*.
Benito, J. B. P., Figs, 88*p*.
Benito, J. P., Wine, 88*t*.
Benito y Reoyo, G., Brandy, 88*x*.
Benjumea y Jilo, E., Olive oil, 88*gg*.
Benkovski, A., Asparagus digger, 127.
Bennett, S., New South Wales, 180.
Benoit, C., Wines, 50.
Benson, B. S., Steam plow, 25.
Bentes, Antonio Joaquim Serpa, Olives, 104.
Bentes, I. J., Oil, 119.
Bento, João, Wines, 106.
Beótegui, F., Claret, 88*x*.
Bequer, T., Cocoons, 88.
Berenguer, R., Brandy, 88*t*.
Berdue, M., Box, 77.
Berg, C. G., Punch and whiskey, 59.
Bergen Glass Works, Buoys, 61.
Bergen, J. N. von, & Son, Punch, 59.
Bergen Museum, Mammals, 61; Models, 62.
Bergens, Rögeri, Red herrings, 61.
Bergeré, Dr., Peanuts, 79.
Berggren, D. & J., Tobacco, 59.
Bergman, G. W., Sweden, 240.
Bergner & Engel, Beer, 136.
Bergner, George, & Co., Parers, 33.
Bergner, Theo., Malt turner & kiln, 138; Cork driver, 138.
Bergstresser, E. L. Corn planter, 26.
Bergstrom, H. C., Anchovy and herrings, 59.
Bergstrom, P. A., Sweden, 240.
Bernabeu y Diego, J. B., Almonds, 88*a*; Raisins, 88*p*.
Berninches, Corporation of, Honey, 88*p*.
Beriso, Juan, & Co., Dried tongues, 85.
Berizo, Flour, 85.
Berlin Brewing Co., Beer, 54.
Berlinski, G., Mustard, 124.
Bermudas, Statistics of, 189.
Bernard, J., Skins, 82; Wool, 87.
Bernardo Augusto Lopes & Co., Wine, 109.
Bernardo, Vasco, Wine, 112.
Bernhardt, A., Essences, 54.
Berrio y Torrero, V., Hemp, 88*ii*.
Berruezo, J. A., Almonds, 88*a*.
Bertao, Ladislau Xavier, Honey, etc., 103.
Bertea, Stefano, Wines, 65.
Bertolate, G., Wheat, 78.
Bertrand, J. & Co., Millstones, 48.
Besa, Santos, Oil, 132.
Besley's Waukegan Brewing Co., Ale, 137.
Beson, E. A., Cereals, 88*d*.
Bessarabian Agricultural School, Beans, 124.
Bessarabian Horticultural School, Wheat, 123.
Best, John, Agricultural engines, 33.
Betou, P. D., Artificial manures, 60.
Bettencourt, Francisco, Woods, 89.
Bettle, Harbert, Can holder, 35.
Betts, Albert C., Machine, 38.
Beuverand, de, & Poligney, de, Wines, 50.
Bewley & Draper, Aerated waters, 40.
Bexiga, Antonio Soares, Brandy, 108.
Biagem Boa, Baron da, Aguardente, 74.
Biardot, A., Confectionery, 51.

Bickford & Huffman, Grain drill, etc., 27.
Bidwell, J. C., Plows, etc., 25.
Bielsky, Charles D., Russia, 294.
Bierrembeck & Bro., Plows, 75.
Biester, Campas, & Co., Corkwood, 90.
Bigelow, Jona, Labeling machine, 19.
Biggo, G., & Co., Hand reaper, 67.
Bignell, J., Rice, 88*h*.
Biker, Antonio Pedro, Red wine, 113.
Bildt, C., Sweden, 240.
Billar, S., Brandy, 86; Ropes, 87.
Billsky, Charles de, Russia, 294.
Binder & Schweibing, Corn plow, 26.
Bindley & Co., Ales, 41.
Bindon, Hon. S. H., Victoria, 182.
Bines, S. M., Tree, 152.
Bingham, O. A., Stand, 153.
Bingham, R., Drosera, 151; Lilies, 153.
Bintrago, J. C. d'Almeida de, Wine, 109.
Biraben, A., Preserved meats, 84.
Birdsell Manufacturing Co., Machines, 32.
Birely & Co., Vinegar, 45.
Biron & Son, Stone, 48.
Bisco, Luigi, & Co., Liquors, 65.
Bissellach, G., Wines, 88*t*.
Bivar, Jeronymo, Wines, 108.
Bivar, Jeronymo d'Almeida, Red wine, 108.
Black & Krebs, Sugar-cured hams, 20.
Blackwell, W. J., & Co., Tobacco, 16.
Blackwood, R., & Co., Cider, 45.
Blake, George F., Mfg. Co., Pumps, 139.
Blanc, H. E., Baron, Italy, 249.
Blanchard's, Porter, Sons, Churns, 35.
Blanchaud, M., Corn, 79.
Blanchet, J., Plows, 75.
Blanco, A., Peas, 88*j*; Wine, 88*u*.
Blanco, A. F. P., Oil, 120.
Blanco, E., Wines, 86.
Blanco, J. A., Wines, 88*z*.
Blanco, J. M., Marmalade, 88*g*; Chocolate, 88*cc*.
Blanco, Joao Diago, Wines, 113.
Blanco y Alcalde, Wine, 88*v*.
Bland, Lt.-Col. R. E., Bermuda, 190.
Blandy, Carlos R., Wine, 113.
Blankenheijm, J. J. M., & Lede, C. A. E. van, Gin, 58.
Blatchley, C. G., Freezer, 35.
Blatz, Valentine, Beer, 136.
Blazquez, A., Wheat, 88*f*.
Bleasdale, J. I., Victoria, 182.
Bleckmann, A. & B. C., & Van der Poel, H., Cigars, 57.
Bley, J., Fibres, 75; Matte, 70.
Bliss, B. K., & Sons, Potatoes, etc., 16; Seed sower, 28, 152; Gladiolus, 153.
Blumenau, Colony of, Tobacco, 71.
Blymyer Mfg. Co., Thresher, 33.
Bó, A., Beans, 88*j*.
Boa-Viagem, Baron of, Sugar, 73.
Boa, Viscount of, Grain, 96; Cheese, oil, 100.
Board of Commerce, Models of boats, 62.
Board of Public Forests, Corks, 90; Tools, 122.
Bobadilla, N., Wine, 88*x*.
Bobo, F. P., Wines, 88*y*; Chocolate, 88*dd*.
Bock & Co., Tobacco, 88*m*.
Boculini, J. B., Wine, 88*t*.
Bodarata, Juan, Barley, 78.
Boden, A. F. W., & Co., Vinegar, 22.
Boden, H. W., & Co., Vinegar, 22.
Bodi, S., Orange wine, 88*bb*.
Boer, W. C., Trees, 158.
Boero, J. & P., Rack, 76.
Boeuilein, C., Bro., & Co., Beer, 137.
Bofim, F. T. do, Fibres, 75.
Bogalho, J. J., Grain, 95; Wine, 116; Wool, 122.
Bohol, Provincial Board of, Skins, shells, 131; Fibres, etc., 133.
Boileau, A., Trees, 155.
Bolinder, J., Sweden, 240.
Bollinger, J., Champagne, 50.
Bols, de Erven Lucas, Fine liquors, 58.
Bolton S., & Sons, Ale, 136.
Bolufer, C., Raisins, 88*r*.
Bomfin, F. T. do, Vegetable fibres, 75.
Bomhauer, Dr. E. H. von, Netherlands, 234.
Bon, R., Wine, 88*x*.
Bonanno, Michele, Baron, Wine, 66.
Bond, Geo. W., Commercial wools, 24.
Bonei Cassuccini Ottavio, Wine, 65.
Bonfils Bros., & Co., Truffles, 49.
Bonnement, I. B., Wool, 87.
Bonnet, M., France, 209.
Bonnett, Schenck, & Earle, Spices, 17.
Bonn-Retiro, Viscount de, Brazil, 263.
Bontou, jr., Wines, 50.
Bonvoisin, A., Plans, 157.
Bonzano, H., Pecan nuts, 15.
Boomer & Boschert Press Co., Presses, 34.
Boothly, J. J. P., South Australia, 184.
Bootz, Erven Wed. F. A., Liquors, 58.
Borba, N. M., Cigarettes, 70.
Borbujo, J., Flax, 88*ii*.
Bordallo, R., Wine and brandy, 88*z*.
Borden, John G., Condensed milk, 20.
Bordewich & Co., Fish meal, etc., 61.
Bordoni, Natale, & Co., Sausages, 64.
Borelli, Luigi, Eau-de-vie, 65.
Borga, Francisco Maximino, Wines, 108.
Borges, A. P. De Carvalho, Brazil, 263.
Borges, Candido Marcelino, Wines, 113.
Borges de Sousa, Asambuja, Wine, 112.
Borges, José Corroados, Wines, 108.
Borhegyi Bros., Wine, 56.
Borissovki, P., Apiary, etc., 127.
Bornaud, L., Coffee, 69.
Bornia Brothers, Pickles, 64.
Bornibus, A., Mustard, 49.
Borrallo, M., Rye, 88*c*.
Borras, S. S., & Lassalle, Wines, 88*aa*.
Borriol, Provincial Board of Agriculture of, Vinegar, 88*v*.
Borthwick, W., Mineral waters, 46.
Borzell, Edith, Mexico, 274.
Bosca y Pascual, B., Wine, 88*bb*.
Bosch y Grau, J., Brandy, 88*u*.
Boschiero, Cav. Giovanni, Wines, 65.
Bosehi, J., & Co., Fruits, 88*r*.
Bosh y Gausa, L., Wheat, 88*c*.
Bosisto, J., Victoria, 182.
Bost, Caleb E., Beehive, 37.
Botejana, J. V., Olive oil, 88*dd*.
Botelho, A. C. A., Skin of a boa, 72.
Botelho, Antonio C., Sausages, 104.
Botelho, Antonio da Costa, Wine, 113.
Bothamley, A. T., New Zealand, 177.
Botilheiro, J. F., Walnuts, 91; Beans, 97.
Boto, Joao de Sousa Dounas, Wine, 109.
Botti, Alessandro, Dried fruits, 64.
Bottinger, H. F., Beer, etc., 54.
Boucinha, Marmel da Costa, Honey, 101.
Boudon, L., Silk, 51.
Bougleuse Bros. & Co., Paste for soup, 64.
Bouille, M., Count de, France, 209.
Boulé, J., Wines, 88*z*, 88*aa*.
Boulle, E., Wines, 50.
Boully, J., Wine, 73.
Bouma, N. G. & J. G., Buckwheat, 57.
Bourgeois, Edmund, Tobacco, 16.
Bourgoin-Jamain, jr., Wines, 50.
Bouscaven, G., Model, 37.
Boutelleau & Co., Brandies, 50.
Böutteville, Baron von Mering, Beer, 54.
Bowen, C. M., Extractor, 36.
Bowers & Sittzer, Beam plow, 26.
Bowes, John L., & Bro., Raw materials, 41.
Boyd, G., & Co., Coffee, 16; Dried grain, fruit, 19; Dryer, 37.
Boyd, J., Cereals, 44.
Boyens, P. W., Spirits, 54.
Boyer, P., & Co., Olives, 49.
Boyer, Wm. L., & Bro., Machines, 33.
Boyle, W. F., Plants, 151.
Brabo. B., Almonds, 88*b*.
Bradbury, Henry, Boxes, 37.
Bradford, H., Ties, 37.
Bradford, W. A., & Co., Cider mill, 34.

Bradley Fertilizer Co., Fertilizers, 36.
Bradley Mfg. Co., Self-dumping hay rake, 29.
Braga & Bro., Brandy, 73.
Braga & Co., Syrups, 73.
Braga, J. F. C., Oil, 74.
Braga, J. M. da Silva, Leaves, 70.
Braga, Joao Ferreira, Portugal, 284.
Braga, Joas Jose de Sousa, Honey, 101.
Braga, Jr., Pharmaceutical preparations, 75.
Braga, Luiz Barbosa, Beans, 97.
Braithwaite, Arthur, Wool, 42.
Branca Bros. & Co., Vermouth, 66.
Branco, Joao Vicente, Gin, 108.
Brandao, Augusto Ferreira, Wine, 109.
Brandao, F. A., Corn, 93; Wine, 109.
Branden Mfg. Co., Howe scales, 33.
Brandmüller, J. B., Wines, 53.
Branson, D. H., Indian corn, 15.
Brant, J. F. d'Andrade, Manioc roots, 69.
Brava, F. L. da, Cotton, 74.
Bravo, Antonio, Barks, 133; Sugar, 131.
Brayley, James, Threshing machine, 32.
Brazil, Peter B., Snow plow, 47.
Brazil, Statistics of, 262.
Brecht, C. F., Wines and brandies, 22.
Brecht, Carl J. P., Wines, 42.
Breckmann, Charles, Russia, 294.
Breitholtz, C. G., Sweden, 240.
Bremer, J. L., Bro., & Co., Seamless bags, 138.
Bremont, M. S., Olive oil, 88*hh*.
Brenna, Santo, Liquors, 66.
Brett, J. M., Great Britain, 173.
Breuer, Miromil, Patent leather, 55.
Breve, Souza, Coffee, 71.
Breves, J. J. de Sz., Coffee, 69.
Brewery Administration, Beer, 55.
Brewster, Dodge, & Huse, Cultivator, 25.
Briantzeff, V., Liquors, 125.
Brichta, Jacob, Juniper berries, 56.
Bricker, Jac., Separator, 46.
Brigham, Wm. Tufts, Hawaii, 261.
Bright, Hon. H. E., South Australia, 184.
Brisuela, Primitivo, Grape syrup, 85.
British Guiana, Statistics of, 190.
Brito, Augusto Pereira, Wines, 108.
Brito, J. F. L. Costa, Wine, 109.
Brito, J. F. S. de, Oil, 118.
Brito, J. M. de B., Brandy, 113.
Brito, Joseph Z., & Co., Cigarettes, 17.
Britto, Joao de, Grain, 92; Wine, 117.
Briviesca, Corporation of, Flax, 88*ii*.
Brizard & Roger, Liquors, 50.
Broddelius & Akerman, Punch, 59.
Brodie & Harvey, Corn, 44; Flour, 45.
Brogsitter, P. F., Wines, 54.
Brolo, Duke F. L. di, Honey, 63.
Bromvers, E., Crackers, 86.
Bronsons & Weston, Pine, 134.
Brooks, C. D., Pickles, preserves, etc., 20.
Brosse, Madame S. C., Mosses, 152.
Brot, L., Furniture, 52.
Brotons Bros., Pepper, 88*m*; Hemp, 88*kk*.
Brotons, C., Flaxseed, 88*u*.
Brotons, Don Enrique, Spain, 280.
Brous, T. Miles, Plows, 25.
Brovold, T., Grain, 61.
Brown, A. & F., Engine, 139.
Brown, Clark D. W., Birds, 18.
Brown Cotton Gin Co., Gins, machines, 32.
Brown, Geo. W., Corn planter, 28.
Brown, H. L. & C. P., Grain drill, 28.
Brown, Hinman, & Co., Weeding hoes, etc., 26.
Brown, J. B., & Co., Wire netting, 41.
Brown, J. Morton, Trellises, 154.
Brown & Jones, Stove to dry hops, 138.
Brown, Miss Nellie, Silk worms, 18.
Brown, Wm. H., Prepared sizing glue, 19.
Brownback, P. N., Threshing machine, 26.
Bruce, H., & Co., Wines, 88*v*.
Bruce, Robert, Tree pruner, 47.
Brück, E., Wines, 53.
Brugalieres, E., Wines, 50.
Brugsch, E., Egypt, 252.
Brugsch Bey, H., Egypt, 252.
Brumby, G., Bitters, 54.
Bruner, M., jr., Hay press, 34.
Brunner, A. F., Plan of ice house, 138.
Bruno, Domingo, Wheat, 78.
Bruno, Giuseppe, Preserves, 64.
Bruschetti, C. Vincenso, Wine, 66.
Bruse, J. M., Barley, 88*e*.
Brusewitz, E., Sweden, 240.
Buada, F., Flour, 85.
Bucher, Gibbs, & Co., Plows, 25.
Bucher, S., Switzerland, 225.
Buck Bros., Vinegar, 54.
Buckhardt, W. H., & Co., Tank and cask, 35.
Budios, L., Wine, 88*x*.
Buena Vista Vinicultural Society, Wines, 22.
Bueno, J., & Co., Liquors, 88*y*.
Bueno, Pimenta, Woods, 68.
Buenos Ayres Prov. Com., Hides, 82; Wool, 8-
Buffa, Augustin, Wheat, 78.
Buffalo Scale Co., Scales, 139.
Buffe, Louis, Chili, 267.
Bufill, B., Almonds, 88*b*; Olive oil, 88*gg*.
Buford, B. D., & Co., Plows, etc., 26.
Buhl, F. P., Wines, 53.
Buil, J., Wheat, 88*l*.
Buison, Julian, Sugar, 132; Bark, 133.
Buist, David, Seed sower, 27.
Buist, Robert, jr., Seeds, 17; Plants, 154.
Bujalance, Corp. of, Wheat, 88*d*; Oil, 88*ee*.
Bujanda, P., Wine, 88*x*.
Bulacan, Provincial Board of, Roots, 130.
Bull, W., Plants, 156.
Bullon, A., Olive oil, 88*ff*.
Bulnes, F. de P., Walnuts, 88*a*.
Burchi, Serafino, Liquors, 66.
Burd, Dr. J. Patterson, Chili, 267.
Burdekin, M., New South Wales, 180.
Burden, H., & Sons, Model, 38.
Burel, J., Peltry, 49.
Burela, Serapio, Tobacco, 81.
Bureta, Countess of, Olive oil, 88*kk*.
Burgeff, N., Wines, 53.
Búrgos, F. de, Cereals, 88*k*; Peas, 88*l*.
Búrgos, Provincial Commission of, Vegetables, 88*i*; Hides, 88*o*; Hemp, 88*it*; Wool, 83*jj*.
Búrgos, Prov. Dep. of, Vegetables, 88*i*, 88*l*.
Burgos, R., Wheat, 78.
Burguete, Miguel Serrao, Nuts, 91; Olives, 105.
Burk, W. B., & Co., Corks, 15.
Burke, Edward & John, Ales, 40.
Burkhardt, G. F., & Co., Steep tub, 138.
Burkhardt, Geo. J., & Co., Dye tub, 35.
Burlage, R. C., Netherlands, 234.
Burmeister, C. C., Denmark, 236.
Burnham & Morrill, Canned meats, 20.
Burt, Hildreth, & Co., Machines, 32.
Buruago, Francisco Solano Asta, Chili, 267.
Bushfield, W. H., Beef cutter, 34.
Bushnell, E., Esparto grass, 88*hh*.
Bussaco, Jose Rodrigues, Honey, 101.
Bustamente, A. M., Cordial, 88*x*.
Bustamente, B., Wine, 88*u*.
Bustamante, O., Tobacco, etc., 80.
Bustindui, J. A., Wines, 88*w*.
Bustos, Sophia G., Quince preserve, 84.
Butchers' Slaughtering & Melting Association, Steamed bones, 19.
Buton, G., & Co., Liquors, 65.
Butowsky, Alexandre, Russia, 294.
Butz, A. L., Corks, 15.
Bykoff, T., Flax, 126.
Byrns, J., 180.

C.

C——, A. M., Coffee, 71.
C——, J. T. A., Cotton, 74.
Caballero, A., Wine, 88*x*.
Caballero y Cabello, M., Wine, 88*bb*.
Caballero, Marquis of, Wine, 88*cc*.
Cabanar y Blanco, R., Barley, 88*d*; Vegetables, 88*j*.
Cabello, J. G., Olive oil, 88*ee*.

Cabezas y Saravia, J., Hazelnuts, 88*a*; Olives, 88*q*; Olive oil, 88*ee*.
Cabezuelas, Count of, Cereals, 88*d*.
Cabilla, A., Grits, 85.
Cabra, Corporation of, Wheat, 88*d*; Vegetables, 88*j*; Esparto grass, 88*ii*.
Cabral, Antonio Paes, Wine, 112.
Cabral, Constantino do Valle, Wine, 108.
Cabral, J. F. D., Milk, 72.
Cabral, P. F., & Sons, Wines, 107; Cocoons, 122.
Cabré, J. N., Wine, 88*bb*.
Cabreira, Antonio, Wine, 112.
Cabrero, V., Wheat, 88*f*; Wool, 88*jj*.
Cabrito Joao Carlos, Wines, etc., 113.
Caceres, D., Olive oil, 88*dd*.
Caceres, Francisco, Wines, 113.
Cachurro, Modesto, & Bro., Wines, 88*z*.
Cadaval, F. de S., Grain, beans, 97; Flag, 120.
Caecedo, A., Retortuno, 77.
Caetano, Joaquim Antonio, Corn, 94.
Caevuo, Viscount of Gaira, Wine, 116.
Caglicsi, R., Plow, 67.
Cagwin & Young, Spading plow, 25.
Caillebotte & Dumagnou, Preserves, etc., 49.
Caipora, G., Laranginha, 74.
Caires, Manuel A., Wine, 117.
Calabuig, B., Seed, 88*n*; Raisins, 88*r*; Wine, 88*bb*; Olive oil, 88*hh*.
Calafate, A. F., Wheat, 88*c*.
Calamianes, Provincial Board of, Wax, 131.
Calasons, José Dias de S., Wine, 112.
Calatrava, F. G., Cereals, 88*f*; Peas, 88*k*; Wine, 88*y*.
Calatroni, Pedro, Liquors, 85.
Calca e Pina, Antonio, Corkwood, 90; Grain, cereals, 92, 95; Cheese, etc., 100; Honey, etc., 102; Wool, 121.
Calcada, Antonio da Casta, Beans, 97.
Calcined Bone Mfg. Co., Manures, 127.
Caldas, M. D. de S., Vinegar, 112; Wine, 116.
Caldeira, Joaquim de, Wine, 115.
Caldeira, Miguel Joaquim, Seeds, 96.
Caldeira, R. J., Wine, 107.
Calderon, J. Leon, Mexico, 274.
Calderon, P., Woods, 77.
Calegari, Giuseppe, Wines, liquors, 64.
Calero, J., Olive oil, 88*gg*.
Calheiros, L. d'O., Oil, 120.
Caliri, Salvatore, Candied fruits, 64.
Calisto & Dias, Rice, 92.
Callado, J. da C., jr., Cheese, 99; Oil, 118.
Callado Senior, Joao da Costa, Grain, 94.
Callejon, F. G., Cheese, 88*o*.
Calleya, Cypriano Ribeiro, Wine, 108.
Callisto, Manuel M., Preserved fish, 104.
Calvache, D., Palmetto leaves, 88*ii*.
Calvo, A., Claret, 88*x*.
Calvo, F., Orange wine, 88*bb*.
Calvo, L., Flax, 88*ii*.
Calzoni, A., Agricultural machine, 67.
Camacho, Fernando, Mexico, 274.
Camacho, Henrique José Maria, Wine, 111.
Camacho, M. G., Cheese, 88*o*.
Camara, D. H., Flour, 106.
Camara, Hermelinda Gago da, Flour, 106
Camara, José Maria, Wine, 108.
Camara, Nuts, 91; Seed, 92.
Camara, Tristao Prestrello da, Wine, 112.
Camargo, Pomperi de, Coffee, 71.
Camargo, S., Coffee, 71.
Camargos, Baron de, Tea, coffee, 71.
Camarines Sur, Prov. Board, Coffee, 131.
Cambaceres, Antonio, Jerked beef, etc., 85.
Camblond, M., Wool, 87.
Camello, J A., Corks, 90; Seeds, 99; Wines, 113.
Cameron, R. W., New South Wales, 180.
Cameta, Municipality of, Cocoa, 69.
Cammarato, Carmelo, Paste for soup, 64.
Campanhia das Lezirias do, Grain, 93.
Campas, Antonio Carlos de, Almonds, 91.
Campbell, C. A. J., Horse shoes, 38.
Campbell, Geo., Wool, 24.
Campbell, J. & J. A., Drill, 27.
Campbell, Thomas, Whiskey, 40.
Campello, E. J. F. de M., Raisins, 104.
Campo, F., Olive oil, 88*ee*.
Campo, V. M. del, Wheat, 88*h*.
Campoamor, R. de, Esparto grass, 88*hh*.
Campora, A., Wine, 86.
Campos, A. d'A. J. de, Oil, 120.
Campos, A. J. P., Wine, 107.
Campos, A. L., Olive oil, 88*ff*.
Campos, Antonio de Freitas, Wine, 113.
Campos, E., Wine, 88*s*.
Campos, Enrique, Milk extract, 84.
Campos, Francisco Ferreira, Wine, 113.
Campos, Luis José de, Olives, 104.
Campos, V., Wine, 88*bb*.
Camprubí, J., Liquor, etc., 88*u*.
Canada, Statistics of, 202.
Canada Wine Growers' Asso'n, Wines, 45.
Canadian Commission, Corn, 44, 45; Wool, etc., 46; Yarn, etc., 47; Arbutus, 134.
Canadian Meat & Product Co., Meats, 45.
Cañamás, B. A., Raisins, 88*r*; Olive oil, 88*hh*.
Cañamas, J. D. C., Wine, 88*bb*.
Canby, George, & Co., Pumps, 39.
Cancella, Francisco, Wines, 113.
Candedo, M., Hazelnuts, 88*a*.
Canela, A., Wine, 88*w*.
Canela, J., Wine, 88*w*.
Canella, Agostinho, Wines, 113.
Cano, A., Crackers, 88*cc*.
Cano, J., Olive oil, 88*ee*.
Cano, R., Olive oil, 88*ee*.
Canoza, Rosaline R., Vegetables, 72.
Cantelli, Giuseppe, Torrone, 66.
Canto e Castro, Miguel do, Wine, 112.
Cantrell & Cochrane, Ale, 41.
Cantual y Lopez, J., Olive oil, 88*ee*.
Capdevila é Ibern, J., Wine, 88*aa*.
Capdevila, J. D., Wine, 88*z*.
Cape of Good Hope, Statistics of, 185.
Capello, Manuel Joaquim da Silva, Wine, 112.
Capsir, I. D., Preserves, 88*q*; Syrup, 88*s*.
Caramés, J. G., Wax, 88*p*.
Carande, I., Peas, 88*k*.
Caras, S., Walnuts, 88*a*.
Carbayo, L., Wheat, 88*g*; Vegetables, 88*k*.
Carceller, S., Peanut oil, 88*hh*.
Cardoso, F. A. L., Oil, 118.
Cardoso, Francisco de Paula, Sumac, 90.
Cardoso, Joaquim Maria, Wine, 113.
Cardoso, jr., Wines, 112.
Cardoso, M. P., Wine, 107.
Cardoso, Manuel Gualdino, Wines, 115.
Cardozo, A. A. C. da S., Grain, 95; Oil, 119.
Cardozo, Antonio, Wine, 113.
Cardwell, J. W., & Co., Rice thresher, 32.
Carenon, E. & J., Model of pump, 88.
Caretti Bros., Liquors, 65.
Carey Bros. & Co., Wines, 88*aa*.
Carignano Bros., Wheat, 80.
Carinho, Bartholomeu Montargil, Wine, 112.
Carl, J., Beer, etc., 54.
Carli, R., Wine, 88*v*.
Carlos, Brandao, & Son, Cork, 90.
Carmichael, G. L. & J. B., Wines, 42.
Carmino, C., & Co., Cigarettes, 88*m*.
Carmo, Bazilia Maria do, Preserved meat, 104.
Carmona, J., Olive oil, 88*ee*.
Carmona, J. G., Liquors, 88*w*.
Carmona, M., Olives, 88*q*.
Carmona, S., Wheat, 88*d*.
Carnana Bros., Wine, 88*bb*; Olive oil, 88*hh*.
Carnaru, Commission of, Cotton, 74.
Carné, J., Wine, 88*w*.
Carneira, A. S., Wine, 107.
Carneiro, B. Rodrigues, Cheese, 72.
Carneiro, Custadio Gil dos Reis, Wine, 113.
Carneiro, F. L., Pao wine, 73.
Carneiro, J. A., Wool, 121.
Carneiro, Joao Bento Sil, Wine, 111.
Carnelho, Victorino A. do R., Vinegar, 112.
Carnell, J. H., Stuffed birds, 44.

Carnero & Colsa, Starch, 88*s*.
Carnes, E. M., Walnuts, 88*a*; Hams, 88*q*; Olive oil, 88*ff*.
Carnide, Viscount of, Wine, 110; Portugal, 284.
Carol, A., & Co., Olive oil, 88*hh*.
Carpanetti, Luciano, Liquors, 65.
Carpenter, Mrs. G. W., Plants, 152.
Carpinter & Co., Wines, 88*v*.
Carr & Hobson, Plows, etc., 26.
Carraffa, V., Wines, 86.
Carralho, Albino Justinianno, Dried figs, 104.
Carranza, Carlos, Argentine Rep., 265.
Carrao, Councillor, Coffee, 69.
Carrasco, A., Wine, 88*u*; Wool, 88*jj*.
Carrasco, A. G., Peas, 88*k*.
Carrasco, J. M., Wheat, 88*e*; Beans, 88*f*; Wine, 88*u*; Olive oil, 88*ff*.
Carratalá, F., Olives, 88*p*.
Carraugo, R., Beet roots, 88*m*.
Carré, W. W., Wagon, 135.
Carreira, F. L., Wines, 73.
Carreira, Joaquin de S. S., Brandy, 116.
Carreira, José Ivo, Woods, 92; Beans, 99.
Carreras, R. C., Chard thread, 87.
Carretero, A. Acorns, 88*n*.
Carretero, E., widow of, Flour, 88*r*.
Carretero, M., Flour, 88*r*.
Carretero, P., Wheat, 88*h*; Wine, 88*v*.
Carrick, David, & Co., Crackers, etc., 24.
Carrilho Bello, Antonio Marcellino, Wine, 117.
Carrillo, L., Beans, 88*f*.
Carrillos, Pablo, Tobacco, 81.
Carroll, John W., Tobacco, 17.
Carroll, Wm., Horseshoes, 39.
Cartau, R., Flax, 126.
Cartaya, Corporation of, Seed, 88*n*; Figs, 88*q*.
Carter, Henry C., Butter pail, 35.
Cartrite, Barnard, Fanning mill, 32.
Carulli, David, Bologna and salted meats, 64.
Carvalho, A. J. de, Oil, 118.
Carvalho, Alonso Pinto Teixeira, Wine, 112.
Carvalho, Ananias Cardoso de, Wine, 112.
Carvalho, Antonio José de, Seed, 97.
Carvalho, Antonio Marques de, Wine, 112.
Carvalho, Antonio Miguel de, Olives, 104.
Carvalho, B. Rocha, Rice, 69.
Carvalho, Manioc, 73.
Carvalho, Carlos Manuel de, Wine, etc., 115.
Carvalho, Dionisio A. N. de, Wine, 113.
Carvalho, E. N. de, Oil, 120.
Carvalho, Francisco Garcia de, Vinegar, 112.
Carvalho, Francisco José de, Brandy, 112.
Carvalho, Izidoro T. de M., Portugal, 284.
Carvalho, J. A., Oil, 120.
Carvalho, J. A. de, Oil, 120.
Carvalho, J. B., Oil, 118.
Carvalho, Joao Affonso de, Wine, 112.
Carvalho, Joao Antonio, Wine, etc., 115.
Carvalho, Joao Antonio de, Grain, 93.
Carvalho, Joaquim A. da S., Rice, maize, beans, peas, 94; Flax, 120.
Carvalho, Joaquim Freire de, Wines, 108.
Carvalho, José Avelino N. de, Red wine, 108.
Carvalho, José F. A. de, Beans, 97; Honey, 101.
Carvalho, José J. de, Wheat flour, 106; Wine, 112.
Carvalho, José R. L. de, Wine, 112.
Carvalho, José Teixéira da, Wine, 113.
Carvalho, José Velloso Pinto de, Wine, 113.
Carvalho, L. de, Gin, 73.
Carvalho, Luis Candido, Grain, 94.
Carvalho, Luis Xavier do Amaral, Wines, 116.
Carvalho, M. de, Gin, 73.
Carvalho & Oliveira, Syrup of ipecac, 73.
Carvalho, Rosa G. de, Chocolate, 104.
Carvalho, S. P. de M., Oil, 118.
Carvalho, Z. de, Coffee, 71.
Carvalhosa, José Felix de Almeida, Wine, 112.
Caryl, A. H., & Son, Horseshoe nails, 38.
Casa de Pasos, Wine, 113.
Casa Nova, Manuel Gonsalves, Corkwood, 90; Grain, 97; Barley flour, 106.
Casado, F., Olive oil, 88*ee*.
Casado, F. N., Raisins, 88*r*.
Casado y Febrero, Hempen ropes, 88*ii*.
Casamayor, M., Wine, 88*x*.
Casanco, Juan, Flax and spurge seed, 81.
Casarino, Mariellus, Leather, 63.
Casas, C., Pastilles, 131.
Casas, Molino de, Flour, 85.
Casci, V., Wines, 45.
Case, J. I., & Co., Threshing machine, 32.
Caselles, P., & Co., Wine, 88*aa*.
Casembroot, F. de, Netherlands, 234.
Casey, Hon. J. J., Victoria, 182.
Casillas, R. A., Olive oil, 88*dd*.
Caso-Galindo, Wheat, 88*g*.
Casoni, Giuseppe, Liquors, 66.
Casqueiro, José Maria, Grain, 96; Wine, 115; Wool, 121.
Cassale Brothers, Wine, 66.
Cassard Bros. & Co., Refined lard, 19.
Cassard, Geo., Pepper hams, 20.
Cassolo, Antonio Joaquim, Leather, 101.
Casta, J. P. de la, Carrobs, 88*l*.
Castañeda, R. R., Arrope, 88*s*.
Castanheira, José R. M., Wine, 113.
Castanheiro, B. R., Sweet fruit, 103.
Castel-Branco, A. M., Preserved meat, 104.
Castel Branco, F. B. C., Wool, 122.
Castel Branco, M. de B., Nuts, 91; Acorns, 99.
Castell, J., Olives, 88*p*.
Castell de Mas, J. P. de, Wine, 88*t*, 88*u*; Olive oil, 88*dd*.
Castellarnau, J. de, Wine, 88*aa*.
Castello, A. de G. R., Flax, 120.
Castello Branco, A. P. de T., Wine, 117.
Castello Branco, D. Joaquina, Wine, 108.
Castello Branco, F. d' A., Wine, 112.
Castello Branco, Ignacio Cardozo, Wine, 117.
Castello Branco, J. da S. F. de, Oil, 104, 119.
Castello Branco, Manuel A. P., Wine, 113.
Castello de Borges, Viscount of, Wines, 116.
Castello, Guadalupe, Grape syrup, 85.
Castello, Lucas da Silva Cardozo, Wine, 108.
Castello y Olivares, J. del, Wines, 88*v*.
Castellon, Provincial Board of Agriculture of, Walnuts, 88*a*; Cereals, 88*d*; Vegetables, 88*j*; Garlic, 88*l*; Seeds, 88*n*; Cheese, 88*o*; Starch, 88*s*; Cordage, 88*ii*; Figs, 88*p*; Barrilla, 88*jj*.
Castelnau, Count de, Victoria, 182.
Castelnuova, T., Absinthe, 73.
Castes, M. A., Wool, 87.
Castiglioni, Domenico, Wines, 64.
Castilho, A. de, Wine, 107.
Castilla, C., Wines, 88*y*.
Castilla, J. E., Olive oil, 88*ee*.
Castillejo, P., Olive oil, 88*ee*.
Castillo, J. H., Honey, 88*p*.
Castillo y Mesquita, F., Palmetto leaves, 88*ii*.
Castino, G. B., & E. Scotto, Paste for soup, 64.
Castorina & Parlato, Sumac, 63.
Castro, A. M. Q. de M. e, Oil, 120.
Castro, Antonio A. d'A., Wine, 113.
Castro, Ayres de S. Mariz, Wine, 113.
Castro, Borja, Woods, 68.
Castro, Damiao Martins, Wine, 113.
Castro, Diego de, Argentine Rep., 265.
Castro, E. C. de, Chocolate, 88*cc*.
Castro, E. R., Wheat, 88*c*.
Castro, J. J. P. de, Oil, 118.
Castro, Joao Lopes de, Grain, 92.
Castro, Joao Vaz Pacheco, Woods, 89.
Castro, Joaquim Caetano de, Hams, 104.
Castro, José d'A. S. e, Beans, 97; Wine, 119
Castro, José de Braganca, Wine, 113.
Castro, Luis B. L. M., Nuts, 91.
Castro, Luis de, Wine, 112.
Castro, Luis de Mello, Brandy, etc., 115.
Castro, M. José de, Sweetmeats, 72.
Castro, M. O. C. de, Wines, 118.
Castro, Miguel Ozorio, Seed, 97.
Castro, Pedro, White corn, 78.
Castro, R. de, Sugar, 73.
Castro, S., Brandy, 86.
Castro y Torres, Wheat, 88*g*.

Catala, A., Raisins, 88*r*.
Catamarca, Prov. Com. of, Seeds, 76; Tobacco, 79; Shells, 81; Skins, 82; Cotton, 86.
Cataneo, J., Flax, 87.
Catanzaro, Giuseppe, Wines, 65.
Catelli Bros., Vermicelli, 45.
Cathrineholnis Foundry, Implements, 62.
Catigbac, N., Coffee, 131.
Cattermolle, E., Wines, 74.
Catz, S., Bitters, liquors, 58.
Causland, McCoy, & Causland, Pickaxe, 25.
Cavadas, J. da S., Flax, 120.
Cavalcante, J. B., Oil, 74.
Cavalcanti, Samples of woods, 68.
Cavalleri, P., & Co., Cheese, etc., 100.
Cavallone, Giovanni, Vermouth, 66.
Cavanaugh, Hon. W., South Australia, 184.
Cavite, Provincial Board of, Rice, 131.
Cazol, Eliziario, Cheese, etc., 100.
Ceará, Province of, Oils, etc., 74; Fibres, 75.
Ceballos, D., Leather, 83.
Cecenarro, V., Wood, 76.
Cecero y Barreda, E., Wine, 88*x*.
Cederlund's, J., Sons, Punch, 59.
Celis, J. G. de, Wine, 88*z*.
Cellas Convent, Preserved fruits, 104.
Central Exportation Co., Matte, 71.
Cepeda, I., Honey, 88*o*, 88*p*.
Cepeda, I. de, Wine, 88*w*; Olive oil, 88*ff*.
Cepeda, J. J., Olive oil, 88*ee*.
Cepeda, M., Wines, 88*x*.
Cercal, M. d'Oliveira, Matte, 70.
Cerda, E., Vinegar, 88*t*.
Cereals Manufacturing Co., Wheat, 21.
Cerero, L. T., Olive oil, 88*ff*.
Cerero y Barreda, E., Wheat, 88*e*.
Ceretti, L., Wheat, 79.
Cernigliano, Vizzi Carmelo, Sumac leaves, 63.
Cernstein, Anton V., Leather, 55.
Cerqueira, Lima, & Co, Leather, etc., 101.
Cerquira & Co., Snuff, 70.
Cerri, Luigi, Torrone, 66.
Cervantes, Pedro, Weed, 92.
Cerveira, Jose Rodrigues, Wines, 113.
Cespedes, Jose, Dried apples, figs, 84.
Ceylon, Statistics of, 191.
Chabert, J., & Co., Silk, 51.
Chaboseau & Payen, Liquor, 50.
Chaco Argentine Territory Com'n, Woods, 76.
Chaco Argentine Territory, Provincial Commission of, Skins, 82; Cotton, 87.
Chadborn & Coldwell, Lawn mower, 29.
Chalmers, James, & Sons, Gelatine, 19.
Chalvin, H. A., Cordials, etc., 22.
Chamber of Commerce & Arts, Almonds, mustard seed, olives, 63; Figs, 64.
Chambers, Jos. M., Canned goods, 20.
Champalimaud, Antonio Montes, Wines, 113.
Champion, A., Thresher, 46.
Champion Machine Co., Reapers, etc., 31.
Chandler & Taylor, Saw mill, 33.
Chaplin, C. H., Rake, 29.
Chapman Binder Co., Reaper, 30.
Chapman, Edwin, & Co., Koumiss, 40.
Chapman, Frank W., Honey extractor, 37.
Chapman, J., Painter, 147.
Chapman, John Winslow, Barrel heading, 37.
Chappée, A., Iron pipes, 48.
Charlesworth, M., & Son, Bran, 44; Flour, 45.
Charozé Bros., Fruits, 48.
Charrington, E., Great Britain, 173.
Chas. F., Fleece, 87.
Chase, B., jr., Stakes, 153.
Chase & Co., Confectionery, 23.
Chase, J., Fernery, 153.
Chateau d'Issan, R. G., Wines, 50.
Chaves, Antonio Joaquim, Wine, 113.
Chaves & Brother, Flowers, 90; Grain, 93.
Chaves, C., Seeds, 77; Wines, 86.
Chaves, José Luciano, Wine, 112.
Chaves, Manuel José da Cunha, Wine, 113.
Chaves, Rosaura, Olives, 84.
Cheasham, John T., Cotton plants, 24.
Cheavin, G., Filters, 41.
Chenaillier, Evaporator, 52.
Chenu, Lafitte, & Co., Wines, 50.
Chenu, P., Confectionery, 51.
Chesley, Plumer, Meat chopper, 34.
Chevallier, A., Food, 49.
Chiapella, J., Wines, 51.
Chicago Scraper & Ditcher Co., Scraper and ditcher, 36.
Chicago Plow Co., Plows, etc., 26.
Chick, W. H., & Co., Freezers, 35.
Chiclana, Corporation of, Cereals, 88*d*.
Chicorro, A. G., Oil, 119.
Chicorro, A. M., Oil, 118.
Chicorro, Andre Guilherme, Grain, 94.
Chief Intendency of War, Ments, 124.
Chili, Statistics of, 266.
Chillaron, S., Saffron, 88*m*; Seeds, 88*n*.
China, Statistics of, 256.
Chiozza, Luigi, Maize, 55.
Chisfield, W., & Son, Isinglass, 136.
Chleborad, Franz, Hops, 55.
Christesen, V., Denmark, 236.
Christian, J. A., & Co., Flour, 22.
Christian, P., Canned lobsters, 45.
Christiania Brewery, Ale, 62.
Christina, Manuel Lopes, Grain, 97.
Christophersen, W. C., Norway, 243.
Chudaca, L., Oil, 51.
Ciaccio, F. Paul, Various grains, 63.
Cicile, L., Bottle cleaner, 52.
Cid, J., Olive oil, 88*ee*.
Cid, Jose Ignacio, Olives, 104; Wool, 122.
Cills, Wm., Tobacco packing hox, 17.
Cinzano, Franco, & Co., Vermouth, 66.
Cirat y Villafranqueza, Count of, Medoc, 88*y*.
Cirer, M., Rice, 130.
Cisnero, J. B., Wine, 86.
Cisneros, H. de, Olive oil, 88*gg*.
Cita, Francesco, & Co., Liquors, 66.
City Chemical Laboratory, Candy, etc., 129.
City Council of Spalt, Beer, etc., 54.
City of Gloucester, Exhibit of progress, 19.
Claghorn, Herring, & Co., Cotton, 24.
Clariano, R., Wine, 88*aa*.
Clark & Dunham, Millstones, 41.
Clark, E. W., Plants, 152.
Clarke, C., Wool, 87.
Clarke, N. W., Fish-hatching apparatus, 19.
Clarke, W. B., New South Wales, 180.
Clarkson, F. M., & Son, Fruits, 20.
Claro, Francisco Germano, Wine, 112.
Clarridge, John, Planter, 27.
Classen, E., Wool, 87.
Classification of Agriculture, 12.
Classification of Horticulture, 149.
Clausen, H., & Co., Beer, 137.
Clausen, H., & Son, Ale, beer, 136.
Claussen, Chas. A., Clover seed, 18.
Clavarino, S., Wine, 86.
Clavé, B., Leather, 49.
Clavelle, J., Wines, 51.
Claver, M., Wheat, 88*i*.
Clear, E., Wheat, 43.
Clegg, Wood, & Co., Hay rake, 29.
Clément, Clément, & Co., Diamonds, 48.
Clement & Co., Pearls, 49.
Clement & Dunbar, Churns, 35.
Clemente, M. M., Cheese, 88*o*.
Clerc, J. B., Wines, 51.
Clerfeyt, J., Belgium, 228.
Clerici, Costantino, Vermouth, 65.
Climaco, J., jr., Wine, 107.
Climent, V., Wine, 88*v*.
Cloramunt, H., Wines, 88*v*.
Coates, A. W., Hay rake, 29.
Coates, C. J., Australia, 184.
Coates, H. C., Cape of Good Hope, 186.
Cobo, L., Tobacco, 80.
Coca, J. de, Cereals, 88*c*.
Coca, J. M., Cheese, 88*o*.
Cocho, T., Vegetables, 88*l*.
Cochran & Gillespie, Leaf tobacco, 17.
Cockle Separator Mfg. Co., Machines, 32.
Codes, T. L. de, Fish, 88*n*, 88*o*; Oil, 88*o*.

Codina, R., Wine, 88*x*.
Codina y Riu, R., Wine, 88*u*.
Coelho, A. F., jr., Wine, 107.
Coelho, Antonio, Cheese, 99.
Coelho, Antonio Jose, Nuts, 91; Grain, 97.
Coelho, J. J., Flax, 120.
Coelho, Joao dos Santos, Grain, 97.
Coelho, Jese Fialho, Grain, 93; Honey, etc., 102.
Coelho, Jose Justino, Nuts, 91; Seed, 97; Beans, 99.
Coelho, L. P., Wool, 122.
Coelho, Luis Pires, Grain, 94; Seed, 96; Santarem, 108.
Coelho, Manuel Diogo, Timber, 90; Nuts, 91; Seed, 96; Cheese, etc., 100; Oil, 118.
Cohen, John B., Cigars, 17.
Cohin, E., Oil, 74.
Cohu, A. B., Implements, 32; Jack, 37.
Coignet, sen. & jr., & Co., Manure, 52.
Cokin, E., Tobacco, 70.
Colambres, G., Vetch, 88*k*.
Colburn, A., & Co., Spices, 17.
Coleman & Gowinlock, Salt, 47.
Colin, jr., Fish, 48.
Colina, J. N., Cotton, 86.
Coll, F. M., Wine, 86.
Coll, J., Walnuts, 88*b*; Raisins, 88*q*; Wine, 88*aa*.
Coll, Vitoria, & Co., Cigarettes, 81.
Colla, Juan, Flour, 85.
Collin, A., Champagne, 51.
Collings, E. Z., Cranberries, 15; Plants, 37.
Collins & Co., Axes, etc., 25.
Collison, H. C., Syrup-drip, 39.
Collyer, Robt. H., Glass, 24; Machinery, 31.
Coln, Joseph, Food, 49.
Colodrero, A., Yatay palm cocoanuts, 84.
Colombini, Ulisse, Sausages, 64.
Colonia San Carlos Sub-com., Barley, 79.
Colony of Angelina, Wheat flour, 73.
Colony of Blumenau, Various products, 72, 74.
Colony of Iatahy, Sugar cane, 73; Cotton, 74.
Colthurst, Symons, & Co., Bricks, 41.
Colwell, H., & Son, Ash, 134.
Comas, F., Hazelnuts, 88*b*.
Comas y Delgado, R., Wine, 88*bb*.
Combet, J., Confectionery, 51.
Combier, J., Liquors, 50.
Commenda, Elias Rebeiro, Wine, 113.
Commerce, Board of, Dried fish, 61.
Commercial Exchange Ass'n, Flour, 18.
Commission General, Cereals, 69; Wax, etc., 72; Hemp, etc., 75.
Commission of the Chaco Argentine Territory, Corn, etc., 80; Rattlesnake, etc., 81.
Commission of Corrientes, Sugar cane, 80.
Company for the Supply of Food, Meats, 125.
Company of Lezirias do Tagus & Sado, Corkwood, 90.
Compondu, L. F., Colens, 151; Pansies, 154.
Compte, J., Wines, 88*aa*.
Compte, J. A., Wine, 88*aa*.
Conari, G., Italy, 249.
Conceicao, Joas Nunes da, Dried fruit, 104.
Conceicao, Jose dos Santos, Flour, 106.
Conceiro, J. R., Oil, 118.
Conde & Bros., Flour, 88*r*.
Conde da Graciosa, Oil, 119.
Conde de Junqueira, Wines, 115.
Conde, D. L., Oil, 118.
Conde, J., Vetch, 88*j*; Seeds, 88*n*.
Conde, J. M., Hides, 88*o*; Wool, 88*jj*.
Condessa d'Anadia, Santa Clara, Beans, 97; Wine, 117.
Condessa Geraz de Lima, Wine, 112.
Congosto, Corp. of, Chestnuts, 88*a*; Cereals, 88*e*; Vegetables, 88*j*; Wine, 88*x*; Flax, 88*ii*.
Congressional Library of the U. S., Committee of, Plants, 152.
Connell Bros., Plow, 46.
Conrad, E. C., Coffee machine, 34; Cage, 37.
Conroy, Bissett, Fishing rods, 19.
Consolidated Tobacco Co., Tobacco, 17.
Constanca, Maria, & Sons, Coffee, cocoa, 71; Tapioca, 73.
Constantino, J., Tobacco, 70.
Consul & Virgili, Hazelnuts, 88*b*; Wine, 88*aa*; Olive oil, 88*gg*.
Contada, Jose D., Corn, 92; Wine, 113.
Contarella, Franco, Baron, Wine, 65.
Conte Gran, A., Elixir, 86.
Contessini, Gerini, & Co., Candied fruits, 64.
Continho, F. A. d'A., Oil, 119; Wool, 121.
Continho, J. da F., Oil, 118.
Contreiras, Jose da Silva, Honey, 97, 101.
Conver, W. H., Churns, 35.
Converse, Bolivar C., Reaping machine, 29.
Cook, Isaac, Hops, 44.
Cook, J. W. & V., Canned salmon, 20.
Cook, L. C., Trout rod, 19.
Cook, Mrs. O. A., Flowers, 151.
Cooke & Foulke, Cultivator, 25.
Cooley, John E., & Co., Native wines, 22.
Cooper, E. E., Great Britain, 173.
Cooper, I. G., Cutter, 34.
Cooper, J. G., Brace, 33.
Cooper, Mark, Fertilizer, 28.
Cooper, Sir D., New South Wales, 180.
Cooper's, Peter, Glue Factory, Glue, etc., 19.
Cope, A., Plants, 152.
Cope & Maxwell Mfg. Co., Pumps, 139.
Coquillat y Sempere, J., Wine, 88*t*.
Coracer, A., Olive oil, 88*ff*.
Corado, Vincente Joaquin, Grain, 92.
Corbalán, J., Almonds, 88*b*; Honey, 88*p*; Wine, 88*z*; Olive oil, 88*ff*.
Corbel, E., & Co., Leather, 49.
Corbett, A., Incubator, 33.
Corde, J., Cereals, 88*d*.
Cordeiro, Antonio Montes, Wine, 113.
Cordeiro, Cataeno Manuel, Cork, 90.
Cordeiro, jr., Rice, 73.
Cordero, Pedro J., White corn, 78.
Cordes, Balthasar, Grain, 95; Wines, 108.
Cordini, Gaetano, & Brivio, Vermouth, 66.
Cordoba, Demetrio, Lima beans, 80.
Cordoba, Provincial Commission of, Woods, 76; Wheat, 80; Skins, 83; Cacti, 159.
Cordojueta, R., Red wheat, 88*d*.
Corinho, Jose Maria, Grain, 92; Oil, 118.
Cork Distillery Co., Whisky, 40.
Cormier & Véron, Food, 49.
Corn Exchange Ass'n, Grain, 44; Flour, 45.
Cornejo, J., Resin, 76.
Cornejo, John, Sugar cane, 78.
Cornell, G. B., Bung bushes, 138.
Cornish & Curtis, Churn, 35.
Cornu, E., & Co., Marble, 48.
Corral, L. M. del, Tobacco, 88*m*.
Corrales, I. W., Wool, 87.
Correa, Antonio de Sousa, Olives, 104.
Correa, Benedicto, Corn, etc., 78; Wool, 84.
Correa, Ildefonso, Matte, 70.
Correa, Joaquim, Nuts, 91; Grain, 94; Oil, 118.
Correa, Jose, Augusto, Wine, 113.
Correa, Laurenço, Medicinal plants, 69.
Correa, P., Matte, 76.
Corrella, Manuel, Mexico, 274.
Correras, S., Skin, 83.
Corrientes, Agricultural Dept. of, Wood, 76.
Corrientes, Prov. Com. of, Woods, 76; Viper's skin, shells, 81; Skins, 83; Ropes, 87.
Corry, Wm., & Co., Aërated waters, 40.
Corte Real, Antonio Freire, Dyewood, 90; Beans, 97; Wine, 112.
Cortes, B., Wines, 88*y*.
Cortés, J. I., Wine, 88*u*.
Cortés y Velarde, E., Wool, 88*jj*.
Cortez, Benedicto Celorico, Red wine, 108.
Cortez, P., Steer hide, 72.
Cortez, P. de Siqueira, Matte, 623.
Cortina, M. de la, Resin, 130.
Cortines, C., Liquors, 88*z*.
Cortinez, Domitilio. Honey, 84.
Cortino, Mariano, Maguey plant, 133.
Cortlandt Wagon Mfg. Co., Wagon, 135.
Cosio y Cuenca, Liquors, 88*cc*.

Cosmacendi, Anton, Liquors, 55.
Cosolfero, M. G., Oil, 118.
Cossart, Gordon, & Co., Wine, 112.
Cosset, D., Lamps, 48.
Cossola, Antonio Joaquim, Barks, 90.
Costa, A., Charcoal, 82.
Costa, A. da, Oil, 118.
Costa, Agostinho N. d'Oliveira, Wine, 108.
Costa, Antonio Fereira da, Seed, 97.
Costa, Antonio Ignacio da, Flour, 106.
Costa, Antonio Jacome da, Brandy, 112.
Costa, Bartolo, Wheat, 78.
Costa & Bro., Corn flour, 106.
Costa, Cabral Joao Rebello da, Wine, 112.
Costa & Co., Sugar, 73; Fruit, 88*r*.
Costa da Mendiga, Jose da, Honey, 101.
Costa, Domingos Antonio da, Wine, 112.
Costa, E. A. da, Biscuits, 118.
Costa, Eymoll, & Co., Hides, 72.
Costa, F. C., Wine, 107.
Costa Falcao, Antonio, Olives, 105.
Costa, Francisco Bentoda, Wine, 113.
Costa, Gaudencio da, Caoutchouc, 68.
Costa, J. P., Wine, 88*bb*.
Costa, J. V. P. da, Wine, 107.
Costa, Joao Carlos, Acorns, 91; Wool, 122.
Costa, Joao Cezario, Red wine, 108.
Costa, Joao Maria da, Wine, 112.
Costa, Jose da Abravezes, Wine, 112.
Costa, Jose Joaquim Pintoda, Wine, 113.
Costa, Jose Rodrigues da, Olives, 105.
Costa, L., Liquors, 86.
Costa, L. J. da F., Wine, 118; Oil, 119; Wool, 121.
Costa, M. da, Coffee, 71.
Costa, M. J., Oil, 120.
Costa, Manuel Jorge da, Barley and beans, 94; Flax, 120.
Costa, P. M., Coffee, 69.
Costa-Pereira, A. B. da, Coffee, 71.
Costa, Pereira, & Co., Wines, 113.
Costa, R. de, Sugar, 73.
Costa, Victorino Alves da, Wine, 113.
Costeira, M. F., Wine, 118.
Costin, P., Cider, 45.
Cotan, A., Vinegar, 88*z*.
Cotan, A. G., Wheat, 88*g*.
Cotan y Mufioz, Wheat, 88*g*.
Cotrofe, M., Fish, 88*u*; Preserved meat, 88*q*.
Cotter, Forge Candido Berkely, Portugal, 285.
Cotton, A. C., Hoe, 25; Extractor, 36.
Cotton Exchange, Raw cotton, 24.
Couceiro, Samples of woods, 68.
Coudert, A., Cigarettes, 80.
Coudert, G., & Son, Brandies, 51.
Couette, Tents, 157.
Council of Agriculture, Cereals, 44.
Council of Polizzi, Avellane nuts, 63.
Coupiac, E., Cheese, 49.
Couraca, Jose de G., Wine, 108; Wool, 121.
Court, P. W., Wool, 43.
Cousland & Cousland, Picks, 34.
Coutinha, Dr. J. M. de Silva, Brazil, 263.
Coutinho, A. J. de M., Wines, 113.
Coutinho, Fernando A. d'A., Grain, 96.
Coutinho, Joaquim Jose, Wine, 111.
Coutinho, Jose Maria d'Almeida, Wines, 113.
Coutinho, Luis C. de L. A., Nuts, 91; Seed, 99; Wine, 112.
Couto, Antonio Severino do, Wine, 112.
Coutto, Joaquim Lucio do, Grain, 95.
Couture, Textile stripper, 51.
Cowder & Jones, Windmill, 37.
Cowdrey, E. T., & Co., Canned vegetables, 20.
Cox, Hon. G. H., New South Wales, 180.
Craig, Daniel, Parlor aquarium, 19.
Crater, Chas. H., Coupling, 135.
Crawford & Walton, Bleached sponge, 19.
Crenshaw, Geo., Stuffed fowls, 18.
Crespo, José S., Chocolate, 88*dd*.
Crespo, M., Wheat, 79.
Crespo, R., Cereals, 88*k*.
Cresswell & Co., Wine, 111.
Cresswell, Samuel J., Cast iron, 147.
Creutz, A., Punch, 59.
Creux, T., Wines, 88*u*.
Criado, D., Olive oil, 88*ee*.
Criado, J. G., Wheat, 88*d*.
Criqui, Joseph, Wines, 23.
Crispo, M. C., Lemons, oranges, 63; Wine, 65.
Croft, Wilbur, & Co., Confectionery, 23.
Crompton, J., South Australia, 184.
Crook, Graham, & Co., Boilers, 41.
Croskill, G. H., Cordials, 45.
Cross & Mehling, Imitation walnut buhl, 15.
Crosse & Blackwell, Sauces, 40
Crowe, A. H., Fishes, etc., 45.
Crowell, J. B., & Co., Grain, etc., 28.
Crozier, Hon. J., South Australia, 184.
Crusat, B. L., Wine, 88*bb*.
Cruz, B. A. da, & Bomfun, Fibres, 75.
Cruz Durán, J. de la, Walnuts, 88*a*.
Cruz Gomez, J. de la, Shoddy, 88*jj*.
Cruz, J. F. da, Biscuits, 118.
Cruz, Joao Lopez de, Grain, 92.
Cruz, Joaquim Rodrigues, Wine, 113.
Cruz, Jose Bento, Beans, 97; Honey, 104.
Cruz, Jose Lopes da, Wine, 113.
Cruz, Manuel Mendes da, Wine, 113.
Cruz, R. T. de la, Figs, 88*q*; Olive oil, 88*ff*; Models, plans, 88*jj*.
Cuadra, E. de la, Cereals, 88*k*; Vegetables, 88*k*; Olive oil, 88*gg*; Wool, 88*jj*.
Cuba, Central Commission of, Tobacco, 88*m*; Sugar, 88*o*; Honey, 88*p*; Sherry, 88*cc*.
Cuéllar, J. A., Cereals, 88*h*.
Cueva, F. de la, Almonds, 88*a*; Liquors, 88*u*.
Cueva, M. de la, Liquors, 88*x*.
Cuevas & Garcia, Vermicelli, 88*s*; Chocolate, 88*dd*.
Cuevas, J. de las, Sausages, 88*p*.
Culbertson, J. Brandon, Rice, 16.
Cummings, W., Banana, 152.
Cundall, J. H., Great Britain, 173.
Cunha, Alexandre de Sena, Red wine, 113.
Cunha, Antonio Duarte da, Wine, 113.
Cunha, Antonio Jose, Seed, 99.
Cunha, Bernardino Alves Teixeira, Wine, 113.
Cunha, Gregorio da, Wine, 108.
Cunha, J. J. Alves da, Coffee, 70.
Cunha, Joao Augusto da, Wine, 112.
Cunha, Joaquim Guilherme da, Olives, 104.
Cunha Ozorio, J. F. da, Grain, 92; Oil, 118.
Cunibert, Baron von, Wines, 53.
Cunliffe, Dobson, & Co., Wines, 51.
Cunningham, Edward, China, 257.
Cunningham, P., & Co., Wheat, 42.
Cunto, Manuel d'Aguino Alves do, Wine, 113.
Curlier Bros. & Co., Brandies, 51.
Curry, Giacomo, Preserves, 64.
Curté, L. de, Belgium, 228.
Cusack, H. P., Barrel hoops, 134.
Cusenier, E., & Co., Liquors, 51.
Cusi y Ferret, F., Wine, 88*t*.
Cusick, Linn, & Co., Tea boxes, 17.
Cuthbert, A., Tree, 152.
Cuvier Club, Fish, 18.

D.

Da Costa, Antonio Adirano, Portugal, 284.
Da Silva, Manuel Gomes, Portugal, 284.
Dabner, G. H., Agave, 88*ii*.
Dagorret, M., Hides, 83.
D'Aguiar, Antonio Augusto, Portugal, 284.
Dahl, E. C., Pale ale, 62.
Dahl, Jens. O., Fish nets, lines, 61.
Dahl, P., Snuff, 59.
Dahlen, F. K., Wines, 53.
Dahlen, J. F. J., Wines, 53.
Dahlheim & Engstrom, Punch, 59.
Dairit, F., Seeds, 131; Oil, 132.
Dalbello, Antonio, Liquor, 55.
Dalen's Tannery, Leather, 62.
Dalman y Amat, D. de, Wine, 88*aa*.
Dalmatia, Prima Societa Enologica, Wine, 56.

Daman, Samuel C., Hawaii, 261.
Damiros, M., Egypt, 252.
Dammann, L., & Cordes, Bitters, 54.
Dana, C. H., Label machine, 38.
Dandicolle & Gaudin, Wines, 50.
D'Andrade, L. A. M., Portugal, 285.
Danks, J., Victoria, 182.
Dannfelt, C. J., Sweden, 240.
Dantas Pimenta, Jose Maria, Dried fruit, 103.
Daoiz, Count of, Olive oil, 88*gg*.
Daoiz, J., Olive oil, 88*gg*.
Darcher, A., Skins, 83.
Dardel, F. L. von, Sweden, 240.
Dardelle & Co., Vegetables, 49.
D'Aristarchi, G., Turkey, 288.
Dassi, Joseph, Italy, 249.
Daubin & Co., Lard, 49.
Daumas, J., & Co., Cigarettes, tobacco, 81.
Dávalos, A., Wine, 86.
Davalos, Benjamin, Tobacco leaves, 81.
Davenport, S., South Australia, 184.
Davernat & Co., Brandy, 88*t*.
Davey, Bickford, Watson, & Co., Fuse, 48.
Davey, W. O., Oakum, 24.
Davidson, G., & Co., Cochineal, 88*n*.
Davila, Bonifacio, Beans, 80; Wines, anise, brandy, 86; Wool, 88.
Dávila, Carmen T. de, Preserved olives, 84.
Dávila, D., Wines, 86.
Dávila, G., Beans, 79; Syrup, 85; Cotton, wines, 86.
Dávila, N. V. de, Wines, 86.
Dávila, Nicolasa, Monogasta syrup, 85.
Davis, H. S., Horseshoes, 38.
Davis, S. jr., & Co., Smoked hams, etc., 21.
Davis, T., & Bro., Porter, 45, 139.
Davis, Wire, & Co., Shingles, 15.
Davison, E. Mara, Argentine Rep., 265.
Davison, Edw. T., Argentine Rep., 265.
Davison, G., & Co., Wines, 88*v*.
Dawson, W. G., Axe handles, 134.
Day, A. G., India rubber, 15, 39.
Day, Edmund, Viper, 81.
Day, Frederica, Wheat, 78.
Day, S. A., & Co., Incubator, 33.
Daza, F., Cereals, 88*c*.
Daza y Ruiz, F., Grapes, 88*a*; Beans, 88*i*; Wines, 88*t*; Flax, 88*ii*.
De Bont, M. J., Confectionery, 58.
De Chabrol, Mr., France, 209.
De Fallois, Mr., France, 209.
De Jough, Wz. D., Vegetable oils, 58.
De la Cruz Videla, Juan, Wheat, 80.
De Laforest, Mr., France, 209.
De Nava, Giuseppe di P., Wines, 65.
Dean, William G., Mustard, 17.
Deardorff, Isaac N., Stove, 38.
Deas, J. S., Canned salmon, 45.
Deats, L. M., & Co., Plows, 25.
Deby, J., Belgium, 229.
Decker, J., Cotton, 74.
Decker, J., & Son, Ice swimmers, 137.
Decker, P. H., Hollow tooth harrow, 25.
Decrow, A. W., Scavenger, 135.
Dederick, P. K., & Co., Machines, 33.
Deener, Cissel, & Welsh, Flour, 21.
Deere & Co., Steel plows, etc., 25.
Defagot, C., Peach liquor, 86.
Deitz, George A., Dryer, 37.
Dejante & Co., Wine, 107.
Déjardin, E., Syrup, 50.
Dejorti, E., Wine, 86.
Del Bono, Enrico, Wine, 65.
Delaware, State of, Timber, 15; Cereals, 16.
Delcheralerie, M., Egypt, 252.
Delf, W., Wheat, 40.
Delgado, Daniel, Potatoes, 80.
Delgado, F. G., Olive oil, 88*dd*.
Delgado, M., Wool, 88*jj*.
Delgado, M. G., Wheat, 88*g*.
Delgado, Manuel, Dried figs, 84.
Delgado y Palacios, J., Alcohol, 88*v*.
Delizy & Doistau, jr., Liquors, 51.
Delmas, A., Woods, 48.
D'Elpeux, Ravin, France, 209.
Delta Moss Co., Moss, 15.
Denginк, H., Maize, 123; Lentils, 124.
Dénia, R., Wine, 88*s*.
Denmark, Statistics of, 235.
Denner, Santiago, Lima beans, 80.
Dennis, F. A., Wool, 88.
Dennis, Rowland, & Co., Plow, 46.
Denny, L., Sugar press, 51.
Deplanque, jr., Emery, 48.
Deriviere, J., Food, 49.
Dernell, H. F., & Co., Tools, 34.
Descals, F. P., Wine, 88*w*.
Desfeux, P., Sheds, 52.
Deshariot, A., Liquors, 125.
Desmoutis, Quennessen, & Le Brun, Platinum, 48.
Dessandier, F., & Co., Brandies, 51.
Dessauer, A., Glue, 53.
Detlós, G. de, Maize, 88*c*; Seeds, 88*n*.
Detrie-Grandjean, Kirschwasser, 51.
Detring, G., China, 257.
Deu, J., & Co., Wine, 88*u*.
Deus, J. R. de, Wine, 107.
Deus, J. R. de, & Co., Oil, 120.
Dexter, E. M., & Co., Confectionery, 24.
Dezincourt, Arrowroot flour, 72; Sugar, 73.
D'Haussonville, Viscount, France, 209.
Diamante, Sub-commission of, Cochineal, 77.
Diarson, J., Matte, 71.
Dias, C. F., Plants, 69; Pharmacies, 75.
Dias, D., Drugs, 75.
Dias, D. J. F., Wine, 107.
Dias, J. D., Oils, 74.
Dias, J. da F., Wine, 107.
Dias, Luis Antonio, Beans, 98.
Dias, M. I., Vinegar, 107.
Diaz, A., Hemp, 88*ii*.
Diaz, Bances, & Co., Tobacco, 88*m*.
Diaz, C., Wine, 88*y*; Wool, 88*jj*.
Diaz, E., Wheat, 77.
Diaz, Eulogia, Stuffed viper, 81.
Diaz, F., Walnuts, 88*b*; Rye, 88*f*.
Diaz, G., Wheat, 88*g*.
Diaz, I., Sugar, 73.
Diaz, J., Sweetmeats, 88*q*; Liquors, 88*cc*.
Diaz, L. B., Wine, 88*y*.
Diaz. R., Wheat, 79.
Diaz y Gomez, E., Wines, 88*w*.
Dibble, Andrew J., Churns, 35.
Dick, J., Ferns, 151; Boiler, 152; Plants, 154.
Dickey, A. P., Mills, 34.
Dickson, C., Sweden, 240.
Diego, F. de, Wheat, 88*h*.
Diego, F. P., Carrobs, 88*l*; Wines, 88*bb*.
Diego, Wood, & Co., Wines, 88*v*.
Diego y Carsi, I. & J., Carrobs, 88*l*; Oil, 88*hh*.
Dieguez, M., Anise seed cordial, 88*cc*.
Diener, H., Wines, 53.
Dier & Dietz, Skins, wool, 43.
Dieringer, C., Coopers' work, 138.
Dietrich, A., Tobacco, 70.
Dietrich & Co., Wines, 53.
Dietz-Monin, France, 209.
Diez, C. P., Liquors, 88*cc*.
Diez y Diez, L., Wine, 88*cc*.
Dilthey, Sahl, & Co., Wines, 53.
Dimayuga, Procesa, Cotton, 132.
Dingee, Squire, Pickles, chow-chow, etc., 21.
Diogo, Paulo Joao, Grain, 94.
Dione, A. C., Food, 49.
Dios Aguado y Alarcon, J. de, Cereals, 88*c*.
Dios Quemada, Juan de, & Sons, Root, 88*m*.
Direction of the Works of the River Mondego, Timber, 90; Olives, 91; Grain, 95.
Ditely, E., Wines, 51.
Diz, M. F., Wine, 88*z*.
Dobrozelinsky Sugar Mfg. Co., Sugar, 125.
Dodds, John, Sulky horse hay-rakes, 20.
Dodero y Ponte, J., Carrobs, 88*d*; Wines, 88*n*.
Doel, W. H., Nest, 45.
Doerchuck, G., Varnish, 138.
Dole Bros., Hops, 136.

Dolin, Mrs., Vermouth, 51.
Domec, G., Honey, 88*f*.
Domech, P., Sherry, 88*cc*.
Domenech, A., Wine, 88*bb*.
Domenech y Monte, J., Almonds, 88*b*.
Domenici, Annibale, Meat, 64.
Domeyko, Ignacio, Chili, 267.
Domingo, D., Almonds, 88*b*; Cereals, 88*h*.
Domingo, G. de, Honey, 88*o*.
Domingo, T., Olive oil, 88*gg*.
Domingues, V. J., Oil, 119.
Dominguez, B., Honey, 88*o*.
Dominguez, F., Brandies, 88*w*.
Dominguez, J., Skins, 81; Vinegar, 85.
Dominguez, J. D., Syrups, 85.
Dominguez, M., Barley, 88*f*; Wine, 88*z*.
Dominguez, P., Maize, 88*i*; Olive oil, 88*gg*.
Donadio, Count del, Spain, 280.
Doncel, J. E., Wine, 86.
Doncel, R., Wine, 86.
Dorner & Suhl, Hay cutter, 33.
Dons, Henrik, Fish, 61; Meats, 62.
Dookhinoff Brothers, Linseed, 124.
Doolvetoff, D., Wine, 125.
Doonaieff, N., Tobacco, etc., 124.
Doordin, J., Beer, 126.
Dooroontcha, M., Tobacco, etc., 124.
Dooroontcha, S., Tobacco, etc., 124.
Dorado, M. L., Flax, 88*ii*.
Doria, B., Wine, 107.
Doria, J., Wine, 107.
D'Orleans, Gaston, Brazil, 263.
Dornas, Luis Cazemiro Pinto dos, Grain, 93.
Dornon, L., Gauzes, 52.
Dortmund Brewery, Beer, 54.
Dos, F., Wheat, 88*g*.
Doulton, H., & Co., Vases, 156.
D'Oultremont, Count, Belgium, 229.
Dow & Co., Wine, 107.
Dow, John, Harrow, 46.
Downie, W., Hops, 44.
Downs, W. H., Churns, 35.
Doyle, J. F., Wines, 42.
Drach, J. R. G., Wine, 107.
Draisma Van Valkenburg, S., Liver oil, 57.
Drake & Parmley, Fence post base, 36.
Draper y Precios, S., Starch, 88*s*.
Dreer, H. A., Ferns, 151; Tools, 153; Plants, 154.
Dreher, Anton, Beer, 55.
Dreifuss & Binswanger, Beer, etc., 54.
Drew, E. B., China, 257.
Dreydelsohn & Co., Wines, 53.
Dreyfus, B., & Co., Wines, 22.
Driessen, C. A., J. P., & H. T., Cacao, 58.
Dronne, L. F., Meats, 49.
Drouven, J., & Co., Liqueurs, 54.
Drown, W. A., Umbrellas, 37.
Druelle, Wine, 51; Corking apparatus, 51.
Du Summerard, France, 209.
Du Vivier & Co., Pickles and delicacies, 20.
Duarte, E. J., Oil, 119.
Duarte, J. B., Wine, 107.
Duarte, J. C. F., Wine, 107.
Dubois, B. B., Cheese, 82.
Dubois, E., Bottling machine, 51.
Dubois, E., & Co., Brandies, 51.
Dubois, José B., Flour, 85.
Dubois, L., Chocolate, 88*dd*.
Duchesne Bros., Leather, 49.
Duclerc, M., France, 209.
Duff, Gordon, & Co., Sherry, 88*cc*.
Dufour, A., & Co., Wines, 49; Sardines, 49.
Dugage, R., France, 209.
Dugan, T., Skins, 82.
Duhayon, F., Belgium, 228.
Duijvis, J., Starch, 58
Duisberg, E., Belgium, 229.
Dulce y Alvarez, B., Flour, 88*r*.
Dumoutier, C., Agricultural products, 48.
Dunn Edge Tool Co., Scythes, 31.
Dunn, T. J., & Co., Cigars, 17.
Duperon, Chas., Harrow, 46.
Dupland, E., Sardines, 49.
Duportal, E., Skins, 82; Wool, 87.
Duportal, Emilio, Argentine Republic, 265.
Duquénel, Wines, 51.
Duraes, L. A., Wine, 107.
Duran, E., Wine, 88*u*.
Durand, A., Wool, 87.
Durango, M. M., Barley, 88*f*; Flour, 88*r*.
Durao, Pedro Manuel, Vinegar, 116.
Durenne, A., Fountains, 48, 157.
Duret, J., & Co., Cognac, 51.
Durlacher, S., & Sons, Wines, 54.
Duro, Francisco dos Santos, Grain, 94.
Durozier, M., & Co., Liquors, 51.
Durrschmidt, Emery, 48.
Durvie, Kneading trough, 52.
Duryea's Glen Cove Starch Co., Starch, 22.
Dutch Agricultural Society, Agriculture, 57.
Dutch Association for Encouragement of Flax Industry, Flax, 58.
Dutton, R., Reaping and mowing machine, 29.
Duvillers, F., Plans, 157.

E.

Eagle Co., Scythes, 29.
Eagle, L. J., Plants, 151.
Eagle Mfg. Co., Walking cultivator, 28.
Eagle Mowing & Reaping Machine Co., Mowing and reaping machines, 28.
Eastern Burnettizing Co., Lumber, 15.
Eastwood & Co., Shafts, 41.
Ebert, J., Fountain, 153.
Ebling, P. & W., Beer, 137.
Eca, José Ferreira de, Brandy, 106.
Echarrieta, S., Paste, 88*r*.
Echebehere, P., Woods, 77.
Echevarria, C., Dyes, 76; Vipers, 81; Skins, 83; Cotton, 87.
Echevets, Gabriel, Stuffed wildcat, 81.
Eckel Bros., Wines, 53.
Eckstein, A. M., & Sons, Tobacco, 53.
Eckstein, H. M., Kid leather, 55.
Eclipse Windmill Co., Windmills, 140.
Economical Society, Tea, 131.
Economical Society of Friends of the Country, Grapes, 88*a*.
Ecorcheville & Legrand, Fruits, 49.
Edwards, J. Fenton, Porcelain, 41.
Edwards, J., & Son, White ware, 41.
Egan, Thos. J., Birds, 44.
Egberts, B. H., Succory, 58.
Egert, J. v. H., Oats, etc., 123.
Egidius, Peter, Herring, anchovies, 61.
Egreja, José Francisco de Serra, Grain, 95; Flour, 106.
Egreja, Manuel Antonio, Indian corn, beans, 95; Flour, 106.
Egypt, Statistics of, 250.
Ehrel, Geo., Beer, 137.
Ehrhardt, C., Wines, 53.
Ehrhardt, J., Wines, 53.
Eichler, G., Plans, 158.
Eigeman, A. H., Netherlands, 234.
Eisenmayer & Co., Flour, 22.
Eklundh, L. P., Plows, 60.
Elfving, N. H., Sweden, 240.
Elia, Antonia, & Sons, Pistachio almonds, 63.
Elia, E., Cheese, 82.
Elias & Betz, Beer, 137.
Elias, Edward, Egypt, 252.
Elligot, James, Bottles, etc., 35.
Elliott, Thos., Hay rake, 46.
Ellis, Chas. R., Tank, 37; Boilers, 152.
Ellis, Hoffman, & Co., Machines, 32.
Ellis, Minot, Swivel plows, 25.
Ellsbury & Hayward, Fruit, 37.
Ellsworth, John T., Churn, 35.
Elmore, Daniel, Settees, 154; Pagodas, 155.
Elola, P., Woods, 77.
Elphee, Edmund, Seed wreath picture, 37.
Elten, D. P. K. van, Netherlands, 234.
Elvira, J., Jam, 88*g*.
Emery, Horace L., Machine, 34.

Emmert, Wm P., Churns, 35.
Empire Portable Forge Co., Forges, 33.
Encinedo, Corporation of, Rye, 88*e*; Beans, 88*f*; Flax, 88*ii*.
Enciso, A. M., Pepper, 88*n*.
Engineers of Woods and Forests, Insects, 88*n*; Esparto grass, 88*ii*; Implements, etc., 88*jj*.
Enison, Catalino, Sugar, 132.
Enological Society of Savighano, Wine, 65.
Enological Society of Scandiano, Wine, 65.
Ensenada, Justice of the Peace of, Woods, 76.
Entre Rios, Prov. Com. of, Woods, 77; Skins, 83
Ergueta, M., Skin, 82.
Erichsen, Thomas, Fish hooks, 61.
Ericsson, Anders, Calfskins, 59.
Ericsson, N. O., Anchovies, herrings, 59.
Erie Preserving Co., Canned fruits, 21.
Erkenbrecher, Andrew, Starch, 22.
Ermoloff, A., Grain, 123.
Errazuriz, Sr. Francisco Gonalez, Chili, 267.
Errazuriz, Sr. Maximiano, Chili, 267.
Erskine, W. A. E. W., South Australia, 184.
Erwin & Wise, Isinglass, 45.
Escalada & Co., Skins, 82.
Escamilla, S., Wheat, 88*i*.
Escarda, S. M., Chocolate, 88*aa*.
Escobar, Don Alfredo, Spain, 280.
Escobar, H., Oil, 120.
Escobar, Juan de Dios, Lima beans, 80; Snake skin, 81; Dried figs, peaches, 85.
Escobar y del Campo, F., Wine, 88*w*.
Escoda, A., Hazelnuts, 88*b*.
Escoda y Teixido, A., Carrobs, 88*l*.
Escofet Nello, M., Wine, 88*u*.
Escoffier, J., Fruits, 49.
Escolá y Franch, R., Hazelnuts, 88*b*.
Escolar, A., Olive oil, 88*ff*.
Escribano, F., Wheat, 88*g*.
Escribano, José, Carrobs, 88*d*.
Escribano, J. V., Olive oil, 88*ee*.
Escribano, Luis, Wheat, 88*d*; Acorns, 88*n*; Peas, 88*f*; Olive oil, 88*ee*.
Escudero, D., & Son, Chocolate, 88*dd*.
Escudero, F., Wheat, 88*f*.
Esmond & Dunham, Press, 34.
Espada, J. C., Honey, etc., 101.
Espada, T., Wine, 86.
Esparsa, J., Seed, 77.
Esperanca, Viscount of, Wine, 109; Brandy, vinegar, oil, 117.
Espina, J. M., Vinegar, 88*x*.
Espinós, J., & Co., Raisins, 88*f*; 88*r*.
Espinosa, F. M. de, Wool, 88*jj*.
Espinosa, J., Wheat, 88*c*.
Esquivel, Peter A., Cigars, 80.
Estapé y Cardona, J., Pastes, 88*r*.
Esteban, F., Wheat, 88*k*; Flour, 88*r*.
Estéban y Balen, A., Peas, 88*f*.
Estéfani, J. G., Champagne, 88*y*.
Estellés, G.. Raisins, 88*q*.
Esterly, Geo. W., Cultivator, seeder, 28.
Estes, William A., Anti-friction plow, 26.
Esteve, D. E., widow & son of, Nuts, 88*c*; Olives, 88*g*; Vinegar, 88*aa*; Olive oil, 88*hh*.
Esteve, J. M., Starch, 88*s*.
Esteves, Félipe, Nito, 133.
Esteves, J. M., Wine, 107.
Esteves, M. de M., Wine, 107.
Estévez, J. V., Wine, 88*y*.
Estrada, E., Olive oil, 88*ee*.
Estrada, L., Barley, 88*c*.
Estrada, Ramon, Cereals, 88*d*.
Estrada, S., Wax, 131.
Estradé y Alsamora, J., Wine, 88*aa*.
Estrado, D. P., Wine, 88*x*.
Estrado y Perjano, R., Olive oil, 88*ee*.
Eugenia & T., White silk, 75.
Euplio, Reina, Wine, 65.
Evans Bros., Hams, shoulders, etc., 21.
Evans & Baird, Machines, 33.
Evans, C. H., & Co., Ale, 136.
Evans, Lippincott, & Cunningham, Bacon, hams, etc., 21.
Evans & Stafford, Cheese, 40.
Evans, Wm. P., Engine, 33.
Everard, Hon. W., South Australia, 184.
Evoli, Ma. Giovanni, Liquor, 66.
Exhibition of Live Stock, 142, 143, 144.
Exton, Adam, & Co., Butter, etc., 24.
Eyries, A., Wine, 88*cc*.

F.

Fabarés, F. R., Wheat, 88*f*.
Fabiá, M. A., Syrup, 88*r*.
Fabra, F. Loyser, Spain, 280.
Fábregues, G., Nougat, 88*r*, 88*ø*; Milk, 88*ø*.
Fabrica, Povoense, Fish, 99.
Facchini, Pietro F., & Co., Hemp, 66.
Facheris, Enrico, Wines, 66.
Factory of Miguel A. da S. P., Tobacco, 99.
Factory of Tobacco, Lealdade, Tobacco, 99.
Factory of Tobacco, Liberdade, Cigars, 99.
Faes Bros. & Co., Cordial, etc., 88*l*.
Fagerheim Net Co., Nets, 61.
Fairbanks & Ewing, Scales, 33.
Fairfax, J. R., New South Wales, 180.
Falcao, D. C., Oils, 74.
Falcao, F. P. de M., Wine, 107.
Falcao, J. C. da C., Woods, 89; Oil, 120.
Falcao, J. de S., Wine, 107.
Falcao, J. J. Franco, Coffee, 69.
Falcao, J. M. F., Wine, 107.
Falcao, Jeronymo F., Honey wine, 101.
Falcao, L. D., Wool, 122.
Falcao, Luis da Costa, Wine, 116.
Falcao, M., Oil, 120.
Falcao, Maria M., Beans, 98; Brandy, 109.
Falcao, P., Aguardente, 73.
Falcao, P. P., Sugar-cane brandy, 73.
Falck, Ytter, Norwegian fishing sled, 61.
Falcon, F., Wheat, 88*ii*.
Falero y Fajardo, P., Cheese, 88*ø*.
Fallon, James T., Wines, 42.
Falz, F., Wool, 127.
Fantozzi, Cesare, Liquors, 66.
Faria, Arnaldo A. P. de, Portugal, 285.
Faria, B. de, Tobacco, 70.
Faria, Francisca Albertina de, Wine, 109.
Faria, M. A. P. R., Wine, 107.
Faria, Manuel Simplicio, Corkwood, 89.
Faria, S. P. de, Wine, 107.
Faria, Souza, Samples of woods, 68.
Farias, José A., Beans, etc., 80.
Farinola, M. Paolo, Wine, 66.
Farmers' Friend Mfg. Co., Implements, 27.
Farmers' Fruit Preserving Co., Fruits, 20.
Faro, J. de C. A., Beans, 98; Wine, 116.
Farra, L. D., Sprinkler, 152.
Farrar, G. H. & L. E., Flower pots, 157.
Farrell, A. P., Wine, 45.
Fastrzembsky, Stanislas, Grains, 123.
Fatz, T., Wool, 126.
Fau, J., Prunes, 49.
Fauqueux, A., Millstones, 48, 52.
Faure, J., & Co., Brandies, 51.
Faurie, J., sr., Wines, 51.
Fausá, P., Almonds, 88*b*; Vegetables, 88*l*.
Faust, W. F., Lily, 152.
Fava, C., Cochineal, 77; Skins, 81; Cotton, 87.
Favare, Marquis Delle, Sumac leaves, 63.
Fay, C. J., Hay press, 32; Rock lifter, 36.
Fayn, J., Belgium, 229.
Febur, Michel Le, Vinegar, 45.
Feenders, Harm., Clod crusher, 25.
Feigh, A., Beer, 137.
Feijo, A. G. B., Wine, 107.
Feio Cordeiro, Daniel, Portugal, 284.
Feis, L., Wines, 53.
Feist Bros., & Sons, Wines, 53.
Feith, H. J., & Son, Biscuits, 60.
Felgner, F. W., & Son, Smoking tobacco, 17.
Feliú, J., Almonds, 88*a*.
Feliú y Rodriguez, J., Almonds, 88*a*.
Felix, E., Austria, 221.
Fell, C. J., & Bro., Spices, 16; Gelatine, 21.
Felten, A. L., Vegetables, 16; Plants, 154.

Fendel, H. J., Wines, 53.
Fereira, Joao Dias, Beans, 98.
Feria, José Maria de la Serpa, Olives, 105.
Fernandes, A. V. d'A., Grain, 95; Wines, 107.
Fernandes, J., Cork, 89; Oil, 120.
Fernandes, J. C., Wine, 107.
Fernandes, J. J., Oil, 120.
Fernandes, Joaquim Filippe, Grain, 95; Seeds, 99; Cheese, oil, 100.
Fernandes, Joaquim P., Beans, 98; Oil, 120.
Fernandes, Jose Antonio, Beans, 98.
Fernandes, Jose Manuel, Honey, etc., 102.
Fernandes, Lucas, Skins, 101.
Fernandes, M. T., Wool, 121.
Fernandes, Manuel I., Grain, 95; Honey, 102.
Fernandez, A., Wheat, 88*d*; Wine, 88*s*; Chocolate, 88*dd*.
Fernandez, C. J., Coffee, 69.
Fernandez de Villalta, A., Seed, 88*n*.
Fernandez, F., Honey, 88*p*; Wine, 88*w*.
Fernandez, F., & Bro., Chocolate, 88*dd*.
Fernandez, G., Wheat, 88*d*.
Fernandez, J., Olivos, 88*g*; Wine, 88*x*; Chocolate, 88*cc*, 88*dd*.
Fernandez, M., Wheat, 88*h*.
Fernandez, P., Cereals, 88*d*.
Fernandez, S., Olive oil, 88*dd*.
Fernandez, Severo, Viper skins, 81.
Fernandez, T., Walnuts, 88*a*; Cereals, 88*e*; Vegetables, 88*j*.
Fernandez, T. V., Walnuts, 88*c*.
Fernandez y Conde, P., Wine, 88*y*.
Ferran, M., Olive oil, 88*dd*.
Ferrandis y Soler, J., Maize, 88*h*; Carrobs, 88*l*; Wine, 88*bb*.
Ferrando, Juan, Lima beans, peas, 80.
Ferrant, M., Vinegar, 88*t*.
Ferrari, G., Wine, 107.
Ferrari, Sebastiano, Paste for soup, 64.
Ferrarini Bros. & Co., Rice, 63.
Ferratges, J. V., Wine, 88*aa*.
Ferraz & Choque, Wine, 107.
Ferré, Vincente, Sugar canes, 80.
Ferreira, A. A., Wine, 107.
Ferreira, Adriano Baptista, Wine, 109.
Ferreira, Antonio Cypriano, Leather, 101.
Ferreira, Antonio M. T., Dried fruits, 105.
Ferreira, Augusto Dias, Wine, 116.
Ferreira & Bros., Kidskins, 101.
Ferreira, Camillo P. da C., Leather, 100.
Ferreira, Candido J., Cigars, 70.
Ferreira & Co., Chocolate, 99; Candy, 105.
Ferreira & Co., Gasper P., Fibres, 75.
Ferreira Convent, Dried plums, 103.
Ferreira & Dourado, Wine, 107.
Ferreira, E. A., Cigarettes, 70.
Ferreira, F. de S., Wine, 107.
Ferreira, Francisco Jose Lopes, Portugal, 284.
Ferreira, J. D., Flax, 121.
Ferreira, J. da M., Oil, 120.
Ferreira, J. I., Wine, 107.
Ferreira, J. J., Oil, 120.
Ferreira, J. J. G., Wine, 107.
Ferreira, J. M., Wine, 107; Oil, 120.
Ferreira, Januario da Silva, Corn flour, 106.
Ferreira, Joao Dias, Grain, 94.
Ferreira, Jose, Grain, 94.
Ferreira, Jose Henriques, Wine, 108.
Ferreira, Manuel da Costa, Beans, 98.
Ferreira, Manuel Felix, Corkwood, 90.
Ferreira, Mathews, Portugal, 284.
Ferreira, S. P., & Negrao, J. de S., Fibres, 75.
Ferreira, V. R. J., Oil, 74.
Ferreiro, A., Seed, 88*n*.
Ferreiro y Hermida, A., Maize, 88*f*.
Ferrenda, I. N., Oil, 120.
Ferrer, J., Vinegar, 88*t*.
Ferrer, V., Woods, 76.
Ferret Bros., & Co., Wines, 51.
Ferris, H., & Son, Ale, 137.
Ferriz y Martinez, C., Wine, 88*s*.
Ferro, B., Wine, 88*y*.
Ferro, G. Vigna del, Italy, 249.
Ferro, Martinho Luis, Grain, 94.
Ferro, N. T. M., Wine, 107.
Feydel, Son, Hides, 72.
Fialho, F. A., Wine, 107.
Fialho, Francisco d'Abreu, Wine, 108.
Fialho, Jacintho Maria, & Son, Wine, 106.
Fibbi, Raffaele, Glue, size, 63.
Fiederlin, F., Washing machine, 139.
Field & Carpenter, Hay-rake, 29.
Field, W., Oatmeal, 40.
Fieldskov, V., Denmark, 236.
Figatner, Enrico, Dried meat, 64.
Figueira, Boaventura da Piedade, Wine, 108.
Figueira, G. A., Sugared almonds, 105.
Figueira, J. R. de C., Wine, 107.
Figueira, Manuel D., Olives, 91; Oil, 120.
Figueiredo, A. J. M., Wine, 107.
Figueiredo, Antonio Jose de, Olives, 105.
Figueiredo, Augusto de Sa, Grain, 94.
Figueiredo, J. F. de, Oil, 120.
Figueiredo, Joaquim de, Honey, 101.
Figueiredo, Jose Cereira de, Honey, etc., 102.
Figueiredo, Jose Paulo, Grain, 95; Oil, 120.
Figueiredo, Manuel Gonsalves, Wine, 109.
Figueora, Sr. Eugenio, Chili, 267.
Figueras, I., Wine, 88*cc*.
Figuerdo, P. de, Twisted tobacco, 71.
Figueroa, Andres, Fibres, 133.
Figueroa, E., Olive oil, 88*ff*.
Figueroa, Jose E., Syrup, 85.
Figueroa, M., Wine, 86.
Figueroa, Molas, & Co., Wine, 86.
Figueroa, Tomas, White corn, 78.
Figuerola, A., Wine, 88*aa*.
Figuerolo, J., Wine, 88*aa*.
Fil, F., Wines, 51.
Filippe, Jose Antonio, Corn, 94.
Filopanti, Q., Plan of irrigation, 67.
Finck, A., & Son, Beer, 137.
Finnegan, A. J., Butter, 35.
Fino, Luigi, & Co., Albumen, 63.
Firsoff, G., Grain, 123.
Fischer, Johann, jr., Champagne, 55.
Fish Bros. & Co., Wagons, 135.
Fisher & Hall, Cedar tubs, 138.
Fisher, Henry, Mower knife, etc., 29.
Fisher, J. H., Refrigerator, 35.
Fisher, M., Cranberries, 44.
Fisher, Samuel, Gang plow, 26.
Fisher, W. A., Fertilizers, 36.
Fison, J. P., Steam engine, 41.
Fisse, Thirion, & Co., Clasps, champagne, 51.
Fitch, Homer W., & Co., Hay conveyer, 37.
Fiton & Nouvialle, Liquors, 49.
Fitz, W. Scott, China, 257.
Fitzgerald, R., Cactus, 151.
Fitzhugh, J. R., Hay elevator, 34.
Fiuza, Domingo Antonio, Grain, 95.
Flanagan & Wallace, Ale, 137.
Flandre, H.R.H. the Comte de Belgium, 228.
Flemming, M., Seeds, 77; Potatoes, 79; Wine, 86.
Flood, E., New South Wales, 180.
Flood, Wm. M., Mutton in alcohol, 20.
Floral Works, Fountains, 153.
Flores, A., Wines, 88*w*.
Flores, N., Tar, 77; Wines, 86.
Flores, P. M., Olive oil, 88*kk*.
Florio, Ignazio & Vincenzo, Wines, 65.
Flotard, Mr., France, 259.
Fluminense Agricultural Institute, Tea, 71; Starch, 73.
Fluxa y Palet, Oils, 88*dd*.
Fock, Baron A. H. E., Sweden, 240.
Fogelmark, Sixten, Cereals, 59.
Foges, I., Leather, 55.
Foggia, Z. M., Medicinal plants, 69.
Fokrath & Co., Cordials, 125.
Folch, J. B., Wine, 88*bb*.
Foley, C., Stuffed birds, 44.
Foley, Margaret A., Fountain, 159.
Fonrodona, Don Jose, Spain, 280.
Fonseca, B. da S. P. da, Wine, 107.
Fonseca, Francisco da Costa, Grain, 94.
Fonseca, J. A., Wines, 107.

Fonseca, J. M. da, Wine, 107.
Fonseca, Manuel Coelho da, Wine, 109.
Fonseca, Santos A. G. da, Honey, etc., 102.
Fonseca Santos, Antonio Germano, Grain, 94.
Fonsecca, Francisco Maximo da, Wine, 109.
Font, S., Liquors, 83*u*.
Fontaine, S. de la, Wines, 50.
Fontam, L. T., Anise liquor, 86.
Fontanals, J. T., Beer, 83*u*.
Fontes & Neygra, Skins, 83.
Fontes, Vicente, & Neyra, Woods, 77.
Fontordera, J. de, Beans, 88*i*.
Fontoya, M., Flour, bran, 88*r*.
Fonts, M., Olives, 83*g*; Barley, 83*h*; Beans, 88*l*; Garlic, 88*n*; Wine, 88*aa*.
Foondoocley, J., Wine, 125.
Foorkhin, P., Fruit paste, 125.
Foot, Scovill D., Fruit preserver, 37.
Fora, Jose Augusto dos Santos, Wine, 109.
Forbes, Dr. R. W., New South Wales, 180.
Forestal District, Esparto grass, 88*ii*.
Forkel, F., Plans, 159.
Formosinho, J. M. G., Grain, 95; Cheese, 99.
Formosinho, Widow of Joao M., Wines, 110.
Fornasa, Vicenzo, Cereals, 63.
Fornell, Ramon, & Co., Olive oil, 88*dd*.
Fornell y Battlaura, J., Wine, 83*u*.
Forni, Alessandro, Sausages, etc., 64.
Forniar, Antonio J. Batta, Leather, 63.
Forrasté y Ferré, J., Nuts, 88*b*; Wheat, 88*k*.
Forseth, O. N., Pale ale, 62.
Forst, J., Wines, 53.
Forster, Christian, Birds, 18.
Forsyth & Co., Reaper, 46.
Fortes, J. M., Wines, 107.
Fortier, B., Leather, 49.
Fortunny, L., Wool, 87.
Forzano, Don Bernardo, Spain, 280.
Forzano, Don Francisco, Spain, 280.
Fos, Miss J., Cigarettes, 48.
Fossen's Tannery, Leather, 61.
Foster, Calvin A., Machines, 34.
Fouchez, L., & Co., Brandies, 51.
Fourcade, Pedro, Wheat, 80; Flour, bran, 84.
Fournier, A., Wines, 51.
Fournier, J., Champagne, 51.
Fowler, Hon. H., Bermudas, 190.
Fox, Geo., Starch, 22.
Fox, Geo., jr., Fishing rods, 18.
Foyn, Sven, Fish guano, 62.
Fraile, A. M. de la, Wines, 83*v*.
Fragoso, Luis Antonio F., jr., Wine, 108.
Fragoso, Manuel Figueira Sonto, Wine, 108.
Fragozo, J. M., Wine, 107.
Fragozo, S. Thiago, Grain, 95.
Fragueiro, G., Skins, 82.
Franca, F. A., Tea, 70.
France, Statistics of, 205.
Franch & Segriá, Hazelnuts, 88*b*.
Francica Brothers, Wine, 66.
Francioze, Maria do Carme, Olive oil, 116.
Franco, Eduardo, Grain, 94.
Franco, Francisco Guedes, Vinegar, 116.
Franco, J., Flax, 121.
Franco, Joaquim, Dried figs, 103.
Franco, Jose da Costa, Grain, 94; Cheese, 99.
Franco, L. A., Wines, 86.
Franco, Luis A., Bird, 81; Quinces, 86.
Franco, M. A., Wine, 107.
Franco, R. S., Wine, 88*u*.
Franco, Viscount de Souza, Brazil, 263.
Franco, Vital Jose Pereira, Wine, 116.
Frank & Lami, Flour, 85.
Franke, I. G. & L., Austrian timber, 55.
Franke, Louis, Yeast, 136.
Franklin Glue Works, Glue, oil, 19; Hair, 24.
Franqueira, R., Brandy, 107; Cocoons, 122.
Franquet y Dara, J., Olive oil, 88*gg*.
Frauenheim & Vilsack, Beer, 136.
Frausto, Antonio Joaquim, Corkwood, 89.
Frausto, L. P., Flax, 121.
Frazer, Hon. J. J., Canada, 204.
Fréal, E., Bottling machine, 51.
Frebeck, P. N., New South Wales, 180.
Frederick, L. W., Wagon, 33.
Freeman & Clarke, Machines, 32.
Freeman, J. R., Begonia, 151.
Freeman & Smith, Ferneries, 153.
Freire, A. A. de S., Beans, 98; Wine, 106.
Freire, Bernardo Xavier, Wine, 106.
Freire & Bros., Coffee, 71.
Freire, J. L. F., Oil, 120.
Freire, Joao Pereire, Seed, 97; Wine, 109.
Freire, M., Coffee, 71.
Freire, M. S., Maize, 88*f*; Peas, 88*j*.
Freires, M. S., Wool, 88*jj*.
Freitas, D. A. de, Wine, 107.
Freitas, G. de Sz., Medicinal plants, 69.
Freitas, J. M. de, Flax, 121.
Freitas, Joao S., jr., Sardines, 99.
Freitas, Jose Alves Pinto de, Grain, 94.
Freixa, S., Hazelnuts, 88*b*; Carrobs, 88*l*.
Freixedas, E., Oil, 120.
French & Co., Truck, 135.
French Steam Flour Mills, Flour, 59.
Frers, G., Wool, 87.
Frexedas, J. F. de F., Wine, 107.
Frey, Abram, Portable fence, 36.
Frey, O., Liquors, 73.
Freyung, O., Liquors, 73.
Frias, Musk raisins, 84.
Frias, Salvador, Corn, 78; Flour, 85.
Friburgo & Sons, Coffee, 71.
Friedrichshöhe Joint Stock Brewery, Beer, 54.
Friestedt, A. W., Commercial fertilizers, 60.
Frigieri, Giuseppi, Hams, sausages, etc., 64.
Frischi, Cristino, Wheat, 80.
Frismuth Bros. & Co., Tobacco, 16.
Fritsch, Joseph, Sun-bleached wax, 19.
Frizzi, Luigi, Wine, 55.
Frois, Leo, & Co., Wines, 51.
Frölich, F. A., Wines, 53.
Frommel, C. J., Preserved fruits, 59.
Frosini, Edoardo, & Bro., Paste for soup, 64.
Fruit Growers' Trade Co., Cranberries, 20.
Fry, Joseph Storrs, & Sons, Chocolate, 41.
Frydenlund Brewery, Ale, 62.
Fuente el Salce, Count of, Olive oil, 88*ee*.
Fuente, D. de la, Plant, 159; Argentine Republic, 265.
Fuente, D. G. de la, Toads, 81; Skins, 82.
Fuente, G. F. de la, Wool, 88.
Fuentes, J., Cereals, 83*f*; Peas, 83*k*.
Fuentes y Ponte, J., Olives, 88*g*; Seed, 88*u*.
Fuentesauco, Corporation of, Chick peas, 88*l*.
Fuento, G. T. de la, & Del Carril, Skins, 83.
Fujita, H., Tea, 128.
Fukukawa, S., Tea, 128.
Fuller, S. S., Flaxseed, 44.
Fulton, Jos. W., Corns, etc., 18.
Fumaña Bros., Almonds, 88*b*; Wine, 88*aa*; Olive oil, 83*hh*.
Funck & Herbzeter, Wagon, 135.
Furitero, L., Wine, 88*cc*.
Furst & Bradley, Machines, 34.
Fussell, James, Sons, & Co., Edge tools, 41.
Fuster, F., Almonds, 88*a*.
Fuster, M., Almonds, 88*a*.
Fvanoff, A., Winnowing machine, 127.

G.

G. B. T., Cotton, 74.
Gaar, Scott, & Co., Machines, 33.
Gabaldoni, Andrea Carlo, Wines, 65.
Gabarres, M., Wheat, 88*e*.
Gade, G., Norway, 243.
Gadrad, D. G., & Co., Brandies, 51.
Gadsden, John W., Anatomical specimens, 38.
Gago, J. B., Wheat, 88*f*.
Gago, Joao Henrigues Nunes, Corkwood, 89; Acorns, 90; Grain, 92; Cheese, oil, 100; Wool, 88.
Gail & Ax, Tobacco, 17.
Galan, A., Olive oil, 88*ee*.
Galan, A. B., Wheat, 88*d*; Acorns, 88*n*.
Galarani, Carlos, Flax, etc., 78 87.

Galesboot, J. P. R., Trees, 158.
Galhardo, F. F., Wine, 107.
Gali, A., Wines, 88*u*.
Galibert, A., Apparatus, 48.
Galimberti, Giuseppe, Liquors, 66.
Galindo, Widow of, Wine, 88*z*.
Galitzyn, Prince Victor, Sugar, 125.
Gallardo, F., Coffee, 130.
Gallardo, J., Wines, 88*w*.
Gallego, F., Peas, 88*k*.
Gallegos, M., Woods, 76.
Gallegos, Tomas, Abaca lupiz, 133.
Gallino, J. A., Woods, 77.
Gallisa, J. A., Wine, 88*bb*.
Gallo, B., Flour, bran, 85.
Galloni, Luigi, Wines, 66.
Gallope, Fernando dos Santos, Wine, 104.
Galloway & Graff, Vases, 153.
Galvao, Jose Augusto Ferreira, Brandy, 106.
Galvao, S. J. M. dos A., Wine, 107.
Gama, Antonio Damingo d'Oliveiro, Hides, 101.
Gama, Azarias, Wood, 68.
Gama, J. A. S., Oil, 120.
Gama, J. C. L. da, Oil, 120.
Gama, M. T. da, Wines, 106, 121.
Gama, P. N. Noguira da, Coffee, 71.
Gama, T. J. de Sz., Cigars, 70.
Gambrill, C. A., & Co., Flour, 21.
Gammon & Deering, Harvester, automatic binder, wind-mill, 30.
Gandara, Alvaro de La Don, Spain, 280.
Ganeshin Bros. & Co., Wool, 126.
Ganz, Joseph, Wine, 55.
Ganzalez, B., Wine, 88*cc*.
Garcao, José Maria, Honey, etc., 101.
Garcés, V., Almonds, 88*a*.
Garcia, A., Barley, 88*g*, Peas, 88*k*.
Garcia, A. G., Vegetables, 88*l*; Preserves, 88*p*.
Garcia, Antonio Joaquim, Wine, 106.
Garcia, B., Chocolate, 82*dd*.
Garcia, Cirilo, Abaca, 133.
Garcia, D., Tobacco, 88*m*; Olive oil, 88*ff*.
Garcia, Domingo, Glue, 83; Raisins, 84.
Garcia, F., Wine, 88*bb*.
Garcia, Fidel, Bros., Sugar, 85.
Garcia, I., Peas, 88*k*.
Garcia, J., Honey, 88*p*.
Garcia, J. A., Wine, 88*y*.
Garcia, J. S., Almonds, 88*b*; Wheat, 88*c*; Olive oil, 88*ff*.
Garcia, Jose Camillo, Wax, 101.
Garcia, L. G., Brandies, 88*t*.
Garcia, M., Cereals, 88*i*; Fig bread, 88*p*; Fruits, 88*r*; Chocolate, 88*dd*; Wool, 88*jj*.
Garcia Muñoz, E. S. de, Sugar, 88*s*.
Garcia, N., Nets, 131; Model, 133.
Garcia, P., Wines, 88*w*, 88*bb*; Syrups, 132.
Garcia, P. L., Olive oil, 88*gg*.
Garcia, Pedro de Souza, Wine, brandy, 108.
Garcia & Piñon, Meat, 88*g*; Fish, 88*u*.
Garcia, R., Cereals, 88*g*; Peas, 88*k*.
Garcia, Regino, Rice, 131.
Garcia, S., Sugar, 85; Dried fruit, 88*q*; Olive oil, 88*hh*.
Garcia y Garcia, Wool, 88*jj*.
Garcia y Garcia, F., Beans, 88*i*.
Garcia y Garcia, M., Liquors, 88*y*.
Garcia y M. J., Olive oil, 88*ee*.
Garcia y Ruiz, P., Wines, 88*w*.
Gardenghi, Enrico, Sausages, etc., 64.
Gardner, J., & Co., Ale, porter, 136.
Garfias, M. J. de L., Almonds, 91.
Garneau, Hon. P. A., Canada, 204.
Garnier, P., Liquors, 51.
Garran, A., New South Wales, 180.
Garrido, J., Walnuts, 88*b*.
Garriga, F. D., Cereals, 88*c*; Vegetables, 88*l*; Systems, models, 88*jj*.
Garriga, L., Rigging, 88*ii*.
Garrigos, J. M., Woods, 77.
Garros, J. L., Wines, 51.
Garst, David W., Chopper, 34.
Garun, N., Nets, 131.
Garvino, Signor, Salt meat, 85.
Gasca y Beltran, J., Fruits, 88*r*; Syrup, 88*s*.
Gascó, F. B., Brandy, 88*v*.
Gascon, A. S., Honey, 88*p*; Olive oil, 88*gg*.
Gastinel, M., Egypt, 252.
Gasull, B., Almonds, 88*b*; Olive oil, 88*hh*.
Gatehouse, J., Victoria, 182.
Gatell y Folch, J., Olives, 88*g*; Maize, 88*h*; Beans, 88*i*; Flour, 88*r*; Oil, 88*hh*.
Gates, H. C., Eels, etc., 18.
Gattola, N., Plow, 67.
Gaus, A., Tobacco, 53.
Gauther, A., Tallow, 82.
Gauvea, Jose das Santos, Honey, etc., 102.
Gaviao, B., Coffee, 71.
Gavino, D., Wool, 88.
Gay & Bryant, Post hole digger, 37.
Gayoso, T. R., Chestnuts, 88*q*.
Gazzo, Luis, Vermicelli, 85.
Geary, H. Seymour, China, 257.
Geilfuss, H., Confectionery, 24.
Geisel, L., Beer, etc., 54.
Gelabert, M., Fibre, 87.
Gelos, M., Dyes, 77; Skins, 82; Grass, 87; Oak, 159.
Gendar, W. T. & T. V., Brewers' tools, 138.
Gener, J., Tobacco, 88*m*.
Gent & Co., Flax, 126.
Genta, Giovanni, Vermouth, 65.
Gentili, Ferdinando, Paste for soup, 64.
Geological Survey, Clam shells, 45.
George, D. F., Clapboards, 134.
George, P. T., & Co., Hams, lard, etc., 21.
Geraides, M. V. P., Wool, 122.
Gerin, E., Brandies, 51.
German Brewery, Beer, 85.
German Rock Asphalt Co., Flooring, 138.
Germany, Statistics of, 210.
Germersheimer, J., Wines, 53.
Germont, L. F., Wines, 53.
Gerolamy, Wm. A., Fanning mill, 46.
Gerona, M., Wine, 88*u*.
Gerra, Sr. E., Chili, 267.
Gervais, E., Corking machines, 51.
Geyelin & Co., Food, 40.
Gfall, Josef Anton, Condensed milk, 55.
Ghizzoni, Luigi, Liquors, 64.
Ghys-Bruneel, P. F., Belgium, 229.
Giacobini, Cariolano, Liquors, 65.
Giacone, Pietro, Wines, 65.
Gianello, Angelo, Italy, 249.
Giannelli, Raffaello, Honey, 64.
Gibbs, B. T. B., Great Britain, 173.
Gibbs & Lee, Steam spader, 28.
Gibbs & Sterrett Manufacturing Co., Mower, hay conveyer, 29.
Gibelli, S., Wine, 86.
Gibson & Bennet, Verbenas, 154.
Giese, Auguste, Turkey, 288.
Gifford, Johnson, & Co., Cultivators, 26.
Gijon, T., Wine, 88*v*.
Gil Bros., & Rico, Flour, 88*r*.
Gil, A. M., Liquors, 88*y*.
Gil, E., Wine, 88*s*.
Gil, F., Almonds, 88*b*; Beans, 88*l*; Wine, 88*aa*; Olive oil, 88*hh*.
Gil, G., Starch, 88*s*.
Gil, J., Wheat, 88*c*.
Gil, Rafael, Sugar, 132.
Gil, S., Beans, 88*j*.
Gilka, J. A., Spirits, 54.
Gillis, George, Harrow, 46.
Gimenez, B., Liquors, 88*y*.
Gimenez, F., Wool, 88*jj*.
Gimenez, F. S., Wheat, 88*c*.
Gimenez, J., Wheat, 88*h*; Peas, 88*k*.
Gimenez, J. M., Wheat, 88*d*; Vegetables, 88*j*.
Gimenez, L. C., Figs, 88*q*.
Gimenez de Tejada Bros., Wines, 88*u*.
Gimenez de Tejada, S., Wines, 88*w*.
Gimeno, M., Wine, 88*cc*.
Giojuzza & Giobertini, Wines, 51.
Giordano, Gio. Batta, Wine, 65.
Giraldez, V., Olive oil, 88*gg*.

Girart, N., Sap, 88*s*.
Girdlestone, C. H., & Co., Tobacco, 44.
Girona, S., Cordial, 88*u*.
Girona y M. R., Olive oil, 88*ee*.
Girones, M., Olives, 88*p*.
Girones y D., Almonds, 88*r*.
Gisbert, M., Wine, 88*bb*.
Gisbert y Marco, F., Wine, 88*t*.
Gisborne, Hon. W., New Zealand, 177.
Gissing, Anthony S., & Sons, Cocoa, 41.
Githens & Rexsamer, Canned fruits, etc., 20.
Glinka, N., Wool, 126.
Gnevan Sugar Mfg. Co., Sugar, 125.
Godinho, Francisco, Wines, 108.
Godinho, Francisco Ferreira, Leather, 100.
Godoy, Nicolas, Preserved citrons, 84.
Gody, J., Belgium, 229.
Gœde, D., Cheese, 57.
Goerg, I., & Co., Champagne, 51.
Goetze, F. A., Wines, 23.
Goetze, F. A., & Bro., Snuff, 16.
Gogl, Dr., jr., Mustard, 55.
Gogueira y Diaz, M., Wines, 88*y*.
Golar y Sirasol, J., Wine, 88*t*.
Gold Coast Colony, Statistics of, 192.
Goldechen, Alexandre, Russia, 294.
Goldsmith, Francis J., Troughs, 37.
Golikoff, K. P., Starch, etc., 125.
Gomes, Antonio L., Grain, 92; Wines, 114; Flax, 121.
Gomes, Antonio Xavier Correa, Grain, 95.
Gomes, Cordeiro, Unhulled rice, 69.
Gomes, Francisco Antonio, Olives, 91.
Gomes, J. Carlos, & Maura, F. A., Peas, lupines, lentils, 98; Oils, 99.
Gomes, J. M., Oil, 120.
Gomes, Joao Carlos, Beans, 98; Brandy, 106.
Gomes, Jose, Brandy, 108.
Gomes, Jose Libanio, Seed, 98; Dried figs, 103.
Gomes, Jose da Costa, Grain, 94.
Gomes, Jose da Costa Balazar, Flour, 106.
Gomez, A. E., Acorns, 88*n*; Olive oil, 88*ee*.
Gomez, A. J., Raisins, 88*q*.
Gomez, B., Saffron, 88*m*.
Gomez, C., Skin, 83.
Gomez, Enrique, Textile substances, 132.
Gomez, F., Wool, 88.
Gomez, J., & Co., Confectionery, 88*r*.
Gomez, J. C., Olive oil, 88*dd*.
Gomez, L., Flamingo skin, 82.
Gomez, M. M., Peas, 88*k*.
Gomez y Gomez, E., Figs, 88*q*.
Gonsalves, J. P., Cigars, 70.
Gonsalves, Jose dos Santos, Wine, 108.
Goncalves, Jose J., Cheese, honey, 100.
Gonzalez, A., Wine, 88*y*.
Gonzalez, Biass, & Co., Wines, 88*v*.
Gonzalez, D., Wheat, 88*d*.
Gonzalez, Daniel, Wool, 88.
Gonzalez, Don Miguel, Spain, 280.
Gonzalez, E., White wheat, 88*g*.
Gonzalez, F., Wines, 88*z*.
Gonzalez, J. M., Chocolate, 88*dd*.
Gonzalez, Joaquin, Roots for dyeing, guano, 77; Corn, 79; Skins, 82.
Gonzalez, Juan, Polecat, small fox, 81.
Gonzalez, M., Peas, 88*i*; Flax, 88*x*; Onions, 88*l*; Wine, 88*ii*.
Gonzalez, Meliton, Woods, 77.
Gonzalez, N. G., Liquors, 88*w*.
Gonzalez, P., Cocoons, 88*jj*.
Gonzalez, Pedro J., Dissected guano, 81.
Gonzalez, R., Maize, 88*g*; Beans, 88*k*; Wool, 88*j*.
Gonzalez, T. D., Flax, 88*ii*.
Gonzalez, Ventura, Wheat, 79; Raisins, dried figs, 84; Sugar, 132.
Gonzalez, Z. D. de, Liquors, 86.
Goodale, S. L., Food extract, 18.
Goodall, Backhouse, & Co., Sauce, 40.
Goodell Co., Broadcast seed sower, 28.
Goodrich, C. C. & F. W., Tobacco hooks, 37.
Goodwin, Wm. F., Mowers, reapers, 30.
Goozov Sugar Manufacturing Co., Sugar, 125.
Gordillo, Alcibiades, Nanogasta syrup, 85; Wines, 86.
Gordo, F., Wheat, 88*g*.
Gordo, J., Flour, 88*r*.
Gordon & Dilworth, Preserved fruits, 20.
Gordon, Hon. S. D., New South Wales, 180.
Gordon, James F., Harvester, 29.
Gordon, W. R., Queensland, 195.
Gori, M. W. C., Netherlands, 234.
Gorki Model Farm, Grain, 123.
Gornez, John M., Horseshoes, 39.
Gorter Brothers, Flax, 58.
Gossin, F., Terra-cotta vases, 154.
Göteborg Machine Co., Plows, 60.
Gotell y Folch, J., Wine, 88*z*.
Goulao, Joao Pereira, Corkwood, 89.
Gourlié, A., Wines, 88*v*.
Gourry & Co., Brandies, 51.
Gouturon, M., Corks, 48.
Gouvea, Jose dos Santos, Products, 92.
Gouvea, Josea B. d'A., Preserved fruits, 103.
Gouzbeyre, A. I., France, 209.
Gove, E., Panels, 15.
Government Cotton Factory of Sakai, Cotton, 129.
Government of Prov. San Juan, Grasses, 78.
Goya y Lopez M., Vinegar, 88*u*.
Goyaz, Province of, Tobacco, 70.
Goyena, John, Stuffed toad, rabbit, 81.
Goyri, B., Seeds, 77; Corn, 79; Skins, 83.
Grace, Wm. Russell, Peru, 270.
Graham, Dorsett, & Co., Woods, 15.
Graham, Emlen, & Passmore, Mower, 29.
Graham, H., Ferns, 151; Plants, 152.
Graham, John, Bacon, 45.
Granada, Salvador, Chocolate, 81.
Grande Latino, Baron C., & Bros., Grain, 63.
Grangell, P., Olive oil, 88*ee*.
Grant, L. J., & Co., Tobacco, 17.
Grant, Peter, Pitchfork, 46.
Grant, Thomas, Brandy, 40.
Grás, P., Wine, 88*z*.
Grasser & Brand, Beer, 137.
Grasso, Carmelo, Liquors, 65.
Gratcheff, E., Grains, etc., 124.
Grau, J., Seed, 88*n*.
Grau, J. M. de, Olive oil, 88*gg*.
Grau y Fló, J., Olives, 88*q*.
Grau y Plá, J., Vegetables, 88*l*.
Grau y Vilanova, J. M., Hazelnuts, 88*b*.
Gray, A. G., Mower, 46.
Gray, Young, & Sparling, Salt, 46.
Great Britain, Statistics of, 169.
Grecke, P., Ale, etc., 136.
Greco-Cassia, Cav. Luigi, Wine, 65.
Greco, Marco, Liquors, 64.
Green Bros., Single reaper, 46.
Green, John, Gelatine, 40.
Green, T., Denmark, 236.
Greening & Sons, Woven wire, 41.
Greenfield, Nelson, Flavors, etc., 20.
Greenfried & Strauss, Confectionery, 24.
Greenough, J. J., Machine, 38.
Greenway, J., Ale, porter, 136.
Greenwich Machine Works, Cultivator, 25.
Greggs & Co., Sulky plow, 26.
Grego, A., Wheat, 77.
Gregoire, N., Wool, 87.
Gregori, T., Cereals, 88*c*.
Gregorio, S., Cereals, 88*f*.
Grerrar, John W., Wool, 43.
Grevsmül, A., Spirits, 125.
Griffiths, George, Shovels, etc., 26.
Grillini, Nanni, & Co., Sausages, 64.
Grillo, M. F., Nuts, 91; Seed, 97; Oil, 120.
Groen, Gz. J. B., Bitters, wine, 58.
Groenewegen, A. C., Flowers, 158.
Grootes, Pz. M., Cacao, etc., 58.
Gros, F., & Co., Raisins, 88*q*.
Grós, J. A., Wheat, 88*i*.
Grós, M., Wheat, 88*i*.
Grosskopf, L., Cigarettes, 53.
Grote, Avon, Liquor, 126.

Grotenfeld, N., Buckwheat, 123.
Groult, jr., Conserves, 49.
Grubinsky, F., Reaping machine, 127.
Grün, W., Wines, 53.
Gualeguaychu Sub-commission, Wheat, 79.
Guapo, Jose Daniel, Wines, 108.
Guedes, A. P. de C., Wine, 107.
Guedes, Alfredo De Queiros, Portugal, 285.
Guedes, F. D., Olives, 91; Sausages, 105.
Guedes, Viscount de, Beans, 99.
Guerin, E., Wines, 86.
Guerin, N., Wheat, 78.
Guernsey, Daniel, Milk pans, 35.
Guerra, B., Wheat, 88*c*.
Guerra, F. L., Pepper, 88*n*; Olive oil, 88*ee*.
Guerra, Francisco A. do A., Wine, vinegar, 108.
Guerra, Joaquim Jose da, Olives, 91; Grain, 95; Wine, 116.
Guerra, Jose da C., Olives, 91; Dried fruits, 104.
Guerra, Jose Ignacio Pinto, Wine, 108.
Guerra, Jose Manuel, Corkwood, 89.
Guerra, T. I. de M., Oil, 120; Flax, 121.
Guerreiro, A. M., Grain, 92; Linseed, 99; Flax, 121.
Guerrero, C. T., Wool, 87.
Guerrero, J., Wheat, 88*c*.
Guevara, E. L. de, Fleece, 87.
Guevara, V. L. de., Wheat, 88*c*; Hemp, 88*hh*.
Guevedo y Perez, J. C., Wines, 88*v*.
Guglielmini, Andrea, Dried fruits, 64.
Guichard-Potheret & Son, Wines, 50.
Guilhou, A., sr., Wines, 50.
Guillaume, Mr., France, 209.
Guillen, V. N., Wine, 88*bb*.
Guimaraes, Oil, 118.
Guimaraes, Ant., Coffee, 71; Rice, 73; Figs, 103.
Guimarães, J. F., Medicinal plants, 69.
Guimaraes, Jose Fernandes, Grain, 94.
Guimaraes, Jose Lopes, Wine, 116.
Guimaraes, M. A., Betas, fibres, 75.
Guimaraes, M. A., & Pedrozo, H., Vanilla, 89.
Guimaraes, M. A. da C., Oil, 120.
Guimaraes, Victorino Barbosa, Beans, 98; Wine, 115; Wool, 122.
Guimera, G., Wool, 88*jj*.
Guisado, J. B. R., Wine, 107, 115.
Guisones, J., Sugar, 131.
Guitian, J., Wine, 88*y*.
Gukes, C., Ale, 137.
Gulden, Chas., Mustards, 17; Catsup, 20.
Guli, Salvatore, Cav., Candied fruits, 64.
Guli, Salvatore Luigi di, Wines, 65.
Gulick, Edwin, Safety seat for harvesters, 31.
Gumiel y Garcia, L., Cordial, 88*s*.
Gumpert Bros., Cigars, 17.
Gunther, G., Cages, 37.
Gurney, Wm., Cotton, 24.
Gurrido, V., Wine, 88*b*.
Guscetti, E., Cheese, 63.
Guth, H., Brewers' instruments, 139.
Gutierrez, C., Beans, 88*k*.
Gutierrez, J. F., Cereals, 88*f*; Peas, 88*k*; Wine, 88*z*.
Gutierrez, S., Rye, 88*f*.
Gutierrez, V., Gin, 88*z*.
Gutmann & Bloch, Barley, 48.
Guttier & Wagner, Preserved fruits, 72.
Guttierez, G., Wool, 87.
Guyer, E., Switzerland, 225.
Guzman, M. de, Seed, 131.

H.

Haagen, R. C. van, Cacao, 58.
Haar & Wesnaes, Preserved meats, etc., 62.
Haas, E., Malt mill, 138; Scales, 139.
Haas & Rosenfeld, Ether, 56.
Haberman, S., Beer swimmer, 137.
Hacke, W., South Australia, 184
Hafner, John A., Threshing machine, 32.
Hagendahl, C. A., Cereals, 59.
Hagerstown Agricultural Implements Mfg. Co., Grain, seed, and fertilizing drills, 28.
Hagerstown Steam Engine & Machine Co., Machines, 32.
Haggert Bros., Separator, 46.
Haig, J., & Co., Whisky, 40.
Halderman, Frank, Bird cage, 37.
Hale, S. B., Wool, 88.
Hall, H. L., Sower and cultivator, 28.
Hall, John, Wool, 42.
Hall, S. W., Fences, 36.
Hallen, J. P., Leather, 61.
Haller, Ella G., Choice fruits, 20.
Hallgren, J. J., Anchovies and herrings, 59.
Halloran, H., New South Wales, 180.
Hall's Self-feeding Cotton Gin Co., Machines, 32; Cotton gin, 34.
Hamar Brewery, Ale, 62.
Hammer, W., Denmark, 236.
Hammond, J. L., China, 257.
Hampel, O., Model malt kiln, 138.
Hance, A., & Sons, Revoluta, 152; Plants, 154.
Hanck, S., & Bro., Vegetable cutters, 34.
Hancock, Salmon, & Co., Tobacco, 17.
Hand, S. A., Lawn mower, 30.
Handy Horse Hay-Fork Co., Hay-fork, 30.
Hanes, John, Corn sheller, 31.
Hannis Distillery Co., Whisky, 22.
Hanot, Jorge, Liquor, 85.
Hansen, C., Denmark, 236.
Hansen, J., Denmark, 236.
Hansen, O., Denmark, 236.
Hanson, F. O., Galvanized railing, 154.
Hapgood & Co., Preserved salmon, 18.
Harbert & Raymond, Mower, hay-rakes, 31.
Harbison, W. C., White mountain honey, 19.
Harbor-Master, Sugar-cane plant, 80.
Harder, Minard, Machines, 32.
Hardin, L. S., Butter making, 35.
Harman, G. W., Chiccory, 124.
Harnish, Edward P., Cultivator, 26.
Harper, Smith, Steel hoes, 25.
Harper, Twelvetras, & Co., Soap powder, 41.
Harrauff & Engle, Tobacco, 16.
Harris, A., & Son, Mower, 46.
Harris, J., & Co., Plows, 46.
Harris, Milo, Dried fruits, 21; Dryer, 37.
Harris, Wm. K., Collection of geraniums, 154.
Harrisburg Fertilizer Co., Flour of bone, 36.
Harrison & Evans, Salt, 47.
Harrison, Lautz Bros., & Co., Wagon, 135
Harrison Manuf'g Co., Knife-head, 30.
Hart, James H., China, 257.
Hart, Robt., China, 257.
Hart, R. T., Manufactured tobacco, 17.
Hartford Pump Co., Wind mill, 140.
Hartley, Richard, Birds, etc., 18.
Hartman, John, Crackers, etc., 23.
Hartsen, P., Netherlands, 234.
Hartung & Krantz, Beer, 136.
Hartwig, H., Beer, etc., 125.
Harvey & Adamson, Vases, 153.
Harvey, J., & Co., Wool, 46.
Hashimoto, S., Spirits, etc., 129.
Hastings, James, Wines, 45.
Hathaway, Vincent, & Co., Ginger ale, 22.
Hatheway, F. A., Moose heads, 45.
Hatter, Carl, Bottle stoppers, 138.
Hattori, Z., China grass, 129.
Häusler, C. S., Cider, 54.
Havemeyer, T. A., Austria, 221.
Havenith, J., Belgium, 229.
Hawaii, Statistics of, 260.
Hawaiian Islands, Ferns, 159.
Hawkins, Chas. P., Ale, 137.
Hay, Hon. J., New South Wales, 179.
Haya, Sanchez, & Co., Cigars, 17.
Hayashi, Y., Tea, 128.
Hayer, M., Cotton, 74.
Haynes, W. H., Hay elevator, 29.
Hayward & Jenkinson, Mouldings, 134.
Hazard, E., & Co., Canned fruits, 20.
Hazard, Thomas, Straw cutters, 34.
Hazelhurst & Young, Flowers, 152.

Head, James S., Shingles, 134.
Head, Thos., Potato digger, 46.
Headden, W. P., Sweden, 240.
Heamer, Andrew J., Hedge-trimmer, 28.
Heaton, Edward, Granum, 21.
Hecker, Geo. V., & Co., Self-raising flour, 21.
Hector, J., New Zealand, 177.
Heebner & Sons, Machines, 32.
Heemskerck Van Beest, J. E. van, Netherlands, 234.
Heide & Wirtz, Almond paste, 24.
Heijnsbergen, P. van, Liver oil, 57.
Heil, L. W., Edam cheese, 57.
Heissinger, F. X., Designs, 153.
Helgesen, H. A., Preserved salmon, 61; Meats, 62.
Hellin, D., Wheat, 88*e*.
Hemp, Day, & Co., Canned fruits, 21.
Henderson, P., Designs, 151; Trellises, 153; Plants, 154.
Henderson, Peter, & Co., Seeds, 18.
Hendryx & Bartholomew, Bird cages, 37.
Henkell & Co., Wine, 54.
Hennig & Papenhagen, Chiccory, 59.
Henry, L., Paté de foie gras, 49.
Heras, A. A. de las, Beans, 88*j*.
Herbst, Augusto, Tobacco, 70.
Herbster, J., Wines, 54.
Herdeiros de Roberto & Hunter Reynolds, Corks, 89.
Heredia, Sa, Dr., Hereida root, 69.
Hermanoff Sugar Mfg. Co., Sugar, 125.
Hermelin, Baron O., Sweden, 240.
Hernaiz, F., Wool, 88*jj*.
Hernandez, A., Wheat, 88*g*.
Hernandez, Antonio, Peru, 270.
Hernandez, B., Beans, 88*k*.
Hernandez, J., Wheat, 88*g*.
Hernandez, J. G., Olive oil, 88*dd*.
Hernandez, P., Wool, 88*jj*.
Hernandez, R., Liquors, 88*z*.
Hernandez, T., Coffee, 131.
Hernandez, V., Peas, 88*k*.
Hernando y Nieto, F., Wheat, 88*f*.
Herraiz, E., Honey, 88*p*.
Herran & Co., Wine, 88*u*.
Herrera, J., Wine, 88*bb*.
Herrera, José, Almonds, 84.
Herrera, M., Wheat, 79.
Herrera, P., Brandy, 86.
Herrera, P. J., Nuts, 84.
Herrera, Ramon, Musk raisins, 84.
Herrero, A., Wheat, 88*f*.
Herrero, J., Olive oil, 88*gg*.
Herrero, P. R., Wheat, 88*f*; Wine, 88*z*.
Herreros, J. I., Wheat, 88*e*; Peas, 88*j*.
Herzog, J., & Co., Eureka hair, 24.
Hess, J. M., & Sons, Vases, 153.
Hetsch, C., Denmark, 236.
Hewit, John C., Potato digger, 29.
Hews, A. H., & Co., Vases, 153.
Hexamer, F. M., Russet cider, 22; Plant, 154.
Heydrick, W. H. H., Steam plow, etc 25.
Heyl, J. B., Bermuda, 190.
Heytler, Frank, Wagon, 135.
Hiatt, E. J., & Bros., Merino wool, 24.
Hidalgo, V., Seed, 88*n*.
Hidalgo y Verjano, Wines, 88*u*.
Higganum Mfg. Co., Plows, 26; Trucks, 37.
Higgin, T., & Co., Salt, 41.
Higuera, T., Flour, 88*s*.
Higueras, J., Lentils, 88*j*.
Hildebrand, J., Beer, 54.
Hill, E. S., New South Wales, 180.
Hill, Hon. P. C., Canada, 204.
Hill, W., Queensland, 195.
Hillborn, Buckman, & Co., Plows, 27.
Hills' Archimedean Lawn Mower Co., Lawn mowers, 29.
Hills, G., Stand, 153.
Hincke, Julius, Domestic wines, 22.
Hinckel, F., Beer, 136.
Hinson, H. J., Bermuda, 190.
Hirano, H., Tea, 128.
Hirner, C. G., Cattle powder, 38.
Hiromichi, Kubo, Japan, 259.
Hiroshi, Shibata, Japan, 259.
Hirsh, A., Switzerland, 225.
Hitchcock, H. R., Hawaii, 261.
Hitchings & Co., Boilers, 152.
Hitz, J., Switzerland, 225.
Hivert, Pellevoisin, & Godet, Brandies, 50.
Hjorth, Fr., Anchovies, 61.
Hjul & Platou, Anchovies, 61.
Hoadley, J. C., Co., Engines, 33.
Hobson, W., Flower pots, 157.
Hoces, A. de, Wheat, 88*d*.
Hodgkinson, F. J., Great Britain, 173.
Hoepiner, Martin, Prepared food, 38.
Hoffman, I. & S., Leather, 55.
Hoffman & Merkel, Beer, 137.
Hoffmann, M. & J., Liqueurs, 54.
Hoffner, J., Palm, 152.
Hoffstedt, W., Sweden, 240.
Hofman, A. J. T., Liquors, 58.
Hofmark, B., Chiccory, 124.
Hofmeister, Ch., Cereals, 59.
Högstedt & Co., Punch, 59.
Höhl Bros., Wines, 53.
Holbrook & Cummington, Salmon, 45.
Holbrook, Edward, Tobacco, 16.
Holbrook, Harry C., Plug tobacco, 17.
Holcomb, E., Deer skin lace leather, 19.
Holden, D. L., Drawings of machines, 138.
Holden, J. A., South Australia, 184.
Holgate, Geo., & Co., Preserved fruits, 21.
Holl, S. J., Chalk, 48.
Holland, Ed., Buggy plow, 25.
Hollender & Co., Beer, 137.
Hollister, King, & Young, Shipping boxes, 35.
Holmblad, J., Denmark, 236.
Holmen's Sawing & Planing Mills, 61.
Holst, Chr., Samples of Norwegian wood, 61; Artificial manure, 62.
Holt, Hiram, & Co., Scythes, 30.
Holt, Hon. T., New South Wales, 180.
Homann, C., Beer, etc., 54.
Homedo y Velasco, P., Flour, 88*r*.
Hontoria y Tezanos, J., Wine, 88*u*.
Hoogenstraaten, D. A. J., Vegetables, 57.
Hooker, J., Condensed milk, 40.
Hoopes, Bro., & Thomas, Plants, 154.
Hoosier Drill Co., Wheat drill, 28.
Hopkins, A. P., Road scraper, 25.
Hoppe, P., Gin, etc., 58.
Horcajo, M., Cereals, 88*d*.
Hori, G., Tea, 128.
Hornachuelos, Corporation of, Wheat, 88*d*.
Hornig, E., Austria, 221.
Hornly, Alex., Cereals, 16.
Hortal, I., Almonds, 88*b*; Wines, 88*z*.
Horticulture, Classification of, 149.
Hotsenpiller & Co., Mill, 33.
Houtman, A., & Co., Gin, 58.
Howard & Fuller, Ale, 137.
Howe & French, Isinglass, 136.
Howlett, C. K., Birds, 18.
Huber, Alfred, China, 257.
Huber Manufacturing Co., Hay-rake, 29.
Huck, John A., Wines, 23.
Huelbes y Ortis, E., Cereals, 88*h*; Seed, 88*n*; Flour, 88*r*.
Huelin, G., & Son, Almonds, 88*a*; Raisins, 88*q*; Sugar, 88*s*.
Huergo, A., Wool, 87.
Huerta, C. de la, Wine, 88*z*.
Huesco, Corporation of, Esparto grass, 88*ii*.
Hughes, H. D., Flour barrel, 33.
Hughes, H. R. & M., Ale, 22, 137.
Hughes, W. W., & Son, Malt kiln, 138.
Hugues, G. H., Wine, 88*v*.
Hull, David H., Tobacco machine, 25.
Hull, Theodore, Horseshoes, 38.
Hulshizer & Larzelere, Machines, 32.
Hulskamp, F. A., Cork, 57.
Hultenberg, C. A., Barley, 59.
Humbert, N., Wines, 88*t*.
Hunt, Roope, Teage, & Co., Port wine, 106.

Hunter, John, & Son, Oatmeal, 40.
Hunyady, Count Emerich, Wool fleeces, 56.
Hupiel, A. G., Barrel-rolling machine, 138.
Hupfel, J. C. G., Barrel-rinsing machine, 138.
Hupiel's, A., Sons, Beer, 137.
Hurd, Lewis, Fruit honey, 19.
Hurley, T., Dyes, 77.
Huss, J. & F., Ferns, 151.
Hutchinson, Samuel, Adjustable harrow, 26.
Hutter, Robert, Grape sugar, 22.
Hydraulic Lime Stock Co., Lime, 48.

I.

Ianesch, Edward, Leather, 55.
Ibanez, L., Olive oil, 88*ff*.
Ibanez, L. G., Pears, 88*a*.
Ibarra, J. M., & Son, Wines, 88*z*; Oil, 88*gg*.
Ibern, y Roviro, J., Carrobs, 88*l*.
Icely, J. E., Switzerland, 225.
Icleinek, Adolph, Glove leather, 55.
Iglesias, A., Lentils, 88*k*.
Iglesias, M., Wine, 107.
Iglesias, R., Cereals, 88*f*; Beans, 88*k*.
Ignes, P., Hazelnuts, 88*a*; Vetch, 88*j*.
Igualada, F., Cordage, 88*ii*.
Iles, F., Designs, 151; Baskets, 153.
Iljine, Nicolas, Russia, 294.
Illañes, J. M., Wheat, 79.
Illas, J. M., Hazelnuts, 88*b*.
Illinois State Board of Agri., Samples, 18.
Ilocos Sur, Provincial Board of, Seeds, 131.
Iloibo, Provincial Board of, Seeds, 130.
Imai, K., Tea, 128.
Imaz Bros., Wheat, 77.
Imperial Nikitzky Garden, Wine, 125.
Imperial Russian Horticultural Society, 123.
Inchado, José Antonio Dias, Nuts, 91; Grain, 95; Oil, 120.
Inchausti & Co., Alcohol, 132.
Ind, Coope, & Co., Ale, 40.
India, Statistics of, 199.
Indiana, State of, Timber, 15; Wheat, etc., 16.
Indo, V. M., Wheat, 88*k*; Oils, 88*hh*.
Infante, J. de Dios, Olive oil, 88*ee*.
Infante, J. E., Wine, 88*v*.
Infante, J. M. de M., Wine, 107.
Ingraham & Beard, Grain separator, 137.
Iniguez, A., Charcoal, 82.
Iñiguez, E., Olive oil, 88*ff*.
Iñiguez, J., Liquors, 88*w*; Olive oil, 88*ff*.
Iniguez, M., Woods, 76.
Iñiguez, M. A., Vipers in alcohol, 81.
Iñiguez, R., Wines, 88*w*.
Inman Brothers, Aërated waters, 40.
Inspection General of Woods & Forests, Timber, 130, 131; Oils, 132.
Institute of Agriculture & Forestry, Wheat, 123.
International Salt Co., Salt, 47.
Invernice, Pedro, Spurge, 80.
Invernizzo, J., & Toschini, J., Wax, honey, 84; Cotton, 87.
Iontoja, M., Wheat, 88*e*.
Iowa, State Board of, Woods, grains, 15.
Iraizo, G., Wool, 87.
Iramon, Juan, Honey, wax, 84.
Iranzo, J., Wine, 88*bb*.
Iriarte, J. M., Chocolate, 88*dd*.
Iriartete, C., Skins, 83.
Iron Clad Can Co., Apparatus for ales, 137.
Irroy, E., & Co., Wines, 50.
Isaacs, Fred. H., Sulky gang plow, 25.
Isæus, M., Sweden, 240.
Isbary, R., Austria, 221.
Isham, Chas. R., Glass honey boxes, 37.
Isla, P., Wine, 88*x*.
Isolatelli & Co., Vermouth, 66.
Israel, J. N., Cigars, 16.
Itabapoana, Baron de, Laranginha, 74.
Itajahy Colony, Woods, 68; Tobacco, 71.
Italian Enological Committee, Liquor, 65.
Italy, Statistics of, 244.
Itarra, Venero, Wheat, 78.
Ithaca Agricultural Works, Wheel rake, 30.
Itschner, W., Switzerland, 225.
Iturrapse Co., Wheat, 79.
Iturraspe & Co., Bran, etc., 85.
Iznaga, N., Sugar, 88*s*.
Izquierdo, N., Honey, 88*p*.

J.

J. C. A., Cotton, 75.
Jaap, J., Curry, 40; Yeast, 41.
Jabon, B., Pepper, 88*n*.
Jacintho, Maria F., & Sons, Wine, 108.
Jackson, James L., Stable fixtures, 38.
Jacobi, A. E., Sweden, 240.
Jacobi, Dr., Germany, 215.
Jacobini Brothers, Wine, 66.
Jacobs, Chas., jr., & Co., Hams, etc., 21.
Jacoby, S., & Co., Cigars, 17.
Jacquand, sr. & jr., Phosphates, 52.
Jacquemard, V., Charcoal, 82; Manure, 88.
Jacquier & Saupiquet, Sardines, 49.
Jäger & Son, Wines, 54.
Jagt, P. G. van der, & Francois, J., Cigars, 57.
Jaime, M., Cordial, 88*t*.
Jamaica, Statistics of, 187.
James, Jos., Bag holder, 46.
Jané, M., Tobacco, 88*m*.
Janes, J. A., Wine, 107.
Janes & Kirtland, Ornamental fountain, 39.
Jansen, E., Flowers, 151.
Jansen, J. H., & Co., Beer, 108.
Japan, Statistics of, 258.
Jaquary, Viscount of, Coffee, 71; Brazil, 263.
Jara, Loulé, Almonds, 91; Beans, 98.
Jarboe, John W., Model, 135.
Jardien, Gomes de, Coffee, 71.
Jardim, J. R. de Moraes, Tobacco, 70.
Jarrin, B., Pastes, 88*s*.
Jarvis & Hooper, Fertilizers, 36.
Jausa, P., Maize, 88*h*.
Javerzac, Viremondoy, & Co., Wines, 50.
Jenks, G. E., Sprinkler, 152.
Jenner, Hon. C. J., Australia, 182.
Jennings, P. A., New South Wales, 180.
Jeremoabo, T., Aguardente, 73.
Jeronymo, Francisco Manuel, Hides, 101.
Jesus, F. de, Bark, 130; Seed, 131; Sugar, 132; Cord, 133.
Jesus, Laureano, Sugar, 132.
Jewell Bros., Flour, 21.
Jewett, Solomon W., Models, 37.
Joacks & Behrns, Millstones, 54.
Joaquim Guelherme de Vascomellos & Sons, Corkwood, 89; Plants, 97; Vinegar, 116.
Jofré, Roman, Red corn, 78; Figs, 84.
Johanesson, C. S., Leather, 59.
Johnsen, Chr., Salted and dried cod, 61.
Johnson & Co., Pale ale, terra-cotta, 41.
Johnson & Gere, Grain drill, 28.
Johnson, J., Plants, 152.
Johnson, Robbins, & Co., Garden seed, 18.
Johnson, T. H., Unfermented wines, 22.
Johnston Harvester Co., Reaper, 29.
Johnston, Samuel, Harvesters, binders, 28.
Jonckbloet, W. T. A., Netherlands, 234.
Jones, D., Malt, 137.
Jones, Fabian, Red corn, 78; Figs, 84.
Jones Fruit Evaporating Co., Evaporator, 37.
Jones, J. M., Implements, 152.
Jones, John A., Potato assorter, 32.
Jones, John Winslow, Canned green corn, 20.
Jong, M. & K. de, Edam cheese, 57.
Jopling, J. M., Great Britain, 173.
Jordan Horticultural Co., Heater, 152.
Jordan, L. A., Wines, 53.
Jordan, M., Wine, 88*bb*.
Jordao, Miranda, Coffee, 71.
Jordao, R., Coffee, 71.
Jordao, S., Coffee, 71.
Jorge, M. F. A., Oil, 74.
Jose Ferreira Pinto Basto, Wine, 116.

Jose, J. das, Neves, & Sons, Almonds, 91.
Jose Maria d'Andrade & Bros., Leather, 101.
Jover, F., Grapes, 88*a*.
Jover, L. de, Almonds, 88*a*; Wheat, 88*e*; Beans, 88*f*.
Jover, Provincial Commission of, Ham, 88*q*.
Juan Fernando, Abaca, 133.
Juandó y Rafecas, J., Wines, 88*t*.
Judge, Owen, Barrel heads, 35.
Judice, A. J., Widow of M., Wines, 110.
Judkins, Mark D., Grain separator, 33.
Jujui, Governor of the Province of, Nuts, 84.
Jujui, Prov. Com. of, Rice, 80; Skins, 83.
Juliano, Fr., Cheese, 72.
Jullien, M., France, 209.
Jung & Co., Wines, 53.
Jung, J. A., Wines, 53.
Jung, J. J., Wines, 53.
Juparana, Baron of, Woods, 68; Coffee, 71.
Jurado, Doraliza G. de, Wasp's comb, 81; Honey, 84.
Jurado, J., Wine, 88*w*.
Jurafdo, Jose M., Argentine Republic, 265.
Jusarte, Jose Carlos, Wine, 115.
Justice, L. B., Machine, 35.
Justice of Peace, Bahia Blanca, Wheat, 78.
Justice of the Peace of Juarez, Wheat, 78.
Justice of the Peace of Patagones, Wheat, 78.
Justice of the Peace of Zarate, Corn, 78.
Juzarte, Jose Francisco, Honey, 101.

K.

Kadach, J., Bitters, 54.
Kadzemari, Sugiyama, Japan, 259.
Kagoshima-ken, Gov. of, Tobacco, 128.
Kahn & Forbes, Hams, bacon, etc., 21.
Kaitaku-Shi, Department of, Wheat, 128; Meats, 129.
Kaku, S., Tea, 128.
Kalashnikoff, P., Liquors, etc., 126.
Kalden, Baron of, Tobacco, 70; Flax, 75.
Kallinge Iron Works, Dairy utensils, 60.
Kalmar Agricultural Society, Cereals, 59.
Kalmweiler, David, Cotton seed huller, 32.
Kambayashi, Sansho, & Sannin, Tea, etc., 128.
Kamimura, N., Tea, 128.
Kampf, S., Malt shovels, 137.
Kamzaki, Liquors, etc., 129.
Kane, E., & Co., Beer, 137.
Kanitz, E., Austria, 221.
Kansas Manufacturing Co., Wagons, 135.
Kantorowicz, H., Liqueurs, 54.
Kappe, W. J. H., Coop, 37.
Karali, G. N., & Co., Cordials, etc., 126.
Karamycheff, E., Linseed, 124.
Karamysheff, E., Flax, 126.
Karamysheff, N., Grain, 123; Flax, 126.
Karlovka Estate, Wool, 126.
Károlyi, Count Alois, Sheep wool, 56.
Katakura, J., Tea, 128.
Kaufmann, M., Malt, 55.
Kaufmann, Mr., Germany, 215.
Kawai, S., Tea, 128
Kawainui, J. N., Hawaii, 261.
Kay & Hilton, Burr mill stones, 41.
Kazan Model Farm, Grain, 123; Flax, 126.
Keane, C. C., Bermuda, 190.
Keastner, Chas., & Co., Feed mills, 137.
Kebe, E., & Co., Wine, 107.
Keck, J. L., & Bros., Pickled meats, 21.
Keen & Hagerty, Freezers, 35.
Keen, Robinson, Bellville, & Co., Mustard, 40.
Kehrmann, F., Wines, 53.
Keiler, J. S., Liqueurs, 54.
Keiser, Jos., Beer wagon, 135.
Keith & Son, Ale, 139.
Kellen, D. van der, jr., Netherlands, 234.
Keller, Henry, Machines, 32.
Keller, J. S., Wine, whisky, 22.
Keller, M., Wines, brandies, 22.
Keller, Philippe, Flax, 75.
Kelley's Island Wine Co., Wines, 23.
Kellogg, Adam, Bale of cotton, 24.
Kelly, Wm. E., Mowing machine, 29.
Kelsey, John, Harrow and scraper, 25.
Kempe, G., Oil, 119.
Kennard, Amos, Cant hook, 37.
Kenosha Fanning Mill Co., Fanning mill, 32.
Kenyon Bros., Potato digger, 30.
Kenyon, Silas R., Corn husking machine, 32.
Ker, Benito, Sugar, 132.
Kerber, P. J., Wines, 53.
Kerbs & Spiess, Cigars, 17.
Kerkwyk, L. C. van, Netherlands, 234.
Kerr, J. R., Oats, 44.
Keshner, F., Sugar, 125.
Kessler, C. E., & Co., Wines, 54.
Ketterman, V., Tobacco, 70.
Keyser, James, & Son, Fastenings, 36.
Keystone Bridge Co., Iron, 147.
Keystone Mfg. Co., Corn planter, 28.
Kharkoff Model Farm, Hops, 124.
Kibler, N., Machines, 32.
Kiderlen, E., Alcohol, potash, 58.
Kiesler, J., Beer wagon, 138.
Kift, J., & Son, Bouquets, 151.
Killian, J. E., Fibres, 75.
Kimball, Wm. S., & Co., Chewing tobacco, 17.
Kindlinger, V., Wines, 53.
Kindt, J., Belgium, 229.
King, Joseph G., Flour, 45.
King, William, Table sauce, 20.
Kingsford, T., & Son, Laundry starch, etc., 22.
Kinney, Francis S., Cigarettes, tobacco, 16.
Kirby Bung Manf'g Co., Bung machine, 138.
Kirchner, A., & Co., Liquors, 54.
Kiriu-Kosho-Kuwaisha, Cigarettes, etc., 128; Fishing apparatus, 129.
Kirk, Chas. H., & Co., Prepared food, 38.
Kissell, Blount, & Co., Corn cultivator, 25.
Kitakaze, Y., Vinegar, 129.
Kitzing, Otto, Russia, 294.
Kiyoto, Municipality of, Tobacco, 128.
Klag, P., Flowers, 152.
Klein, Enrico, Candied fruits, 64.
Klein, J., Wines, 53.
Kleintjes, J., Plant 100 years old, 57.
Klem, Hansen, & Co., Leather, etc., 61.
Klippel & Brother, Hides, 72.
Kluftinger, L., Hemp, 66.
Klütjen, J. H., Bed feathers, 57.
Knapp, S. P., Malt shovels, 137.
Kniajevitch, A., Wine, 125.
Kniffler, Mr., Germany, 215.
Knickerbocker Ice Co., Wagon, 135.
Knight, C. P., & Bro., Fruit jellies, 20.
Knight, F. P., China, 257.
Knight, J., Liquors, 45.
Knight, Sir J. M., New South Wales, 179.
Knight, Sir W. M., New South Wales, 180.
Knowles Steam Pump Works, Pumps, 139.
Knowlton, E. J., Bathing apparatus, 39.
Kobeko, Dmitri, Russia, 294.
Kobori, C., Tea, 128.
Koehler, J. G., Churns, 35.
Köerper & Co., Resin, 53.
Kohei, Makiyama, Japan, 259.
Kohler & Frohling, Wines, 22.
Koldfossen's Bobbin Works, Bobbins, 61.
Komarovsky, Count, Wool, 126.
Kongsberg Brewery, Pale ale, 62.
König, J. B., Wines, 53.
König, R., & Co., Sweetmeats, 86.
Königstädtler Bros., Alcohol, 55.
Konnstein, Gottfried, Ether, 56.
Koodriavzeff, A. & G., Sweetmeats, etc., 126.
Kooshnareff, J., Tobacco, etc., 124.
Kopke & Co., Wine, 108, 111.
Köpp, T., & Son, Vinegar, 54.
Koppen, H. T., & Son, Cigars, 57.
Kopsch, Ch., Tobacco, 70.
Koradi, R., Switzerland, 225.
Korenaka Amori, Japan, 259.
Korf, Baron K., Spirits, etc., 126.
Korf, Baron Michael, Grain, 123.
Korn, G. W., Refrigerator, 138.

Kozishnikoff, P., Bristles, 127.
Kraasby Bros., Fish bait, 61.
Kraft Bros., A. & O., Tobacco, etc., 124.
Krakovicz, F. O., Ventilator, 139.
Kramer, Jacob, Wagon, 135.
Krapotkine, Prince Demetrius, Grain, 123.
Krasinec Sugar Mill Co., Sugar, 125.
Krass, J. A., Wines, 53.
Krause, W., Beer, 126.
Kreisler, J., Raisins, 88*g*.
Kreitner & Sons, Leather, 55.
Krelage, J. H., Bulbs, 158.
Kresken, H., Flowers, 151.
Kriehuber, Alois Edler von, Wine, 55.
Kroh, C. & P. G., Cultivator, 25.
Kruger, Dr., Germany, 215.
Kruijsmulder, Cz. D., Vegetable oils, 58.
Krull, Frederika, Coffee, 70.
Kuechle, J., Beer, 137.
Kühn, von, & Silberman, Tobacco pipes, 17.
Kumagai, K., Incense, 129.
Kümens, R., Sobolevka, & Tsharnomin, Sugar, 125.
Kuroda, N., Tea, 128.
Kuroki, Y., Tea, 128.
Kuwangiyo-Riyo, Imperial Board of, Trees, etc., 128; Hides, etc., 129.
Kuwangiyo-Riyo-no-yozankakari, Silk, 129.

L.

Labarta, M., Wines, 88*z*.
Labatt, John, Ales, 45.
Labenski, W., Grain, 123.
Labensky, V., Wool, 126.
Labhart & Co., Mastic, 130.
Laborda, F., Insects, etc., 81; Syrups, 85.
Laboulaye, Mr., France, 209.
Labrador, C., Marchpane, 88*r*.
Labroise Bros., Wines, 53.
Labrunie, P. A., Wines, 50.
Lacaze, J. P., Wine, 88*cc*.
La Cenia, Marquis of, Wine, 88*t*.
Lacerda, A. A. de, Wine, 115; Wool, 121.
Lacerda, A. F. de, Coffee, 69; Fibres, 75.
Lacerda, José de Aragao Costa, Woods, 89; Trefoil, 93; Grain, 96; Olives, 105.
Lacharme, F., Roses, 157.
Lachaume, J., Cactus, 160.
Lachicotte, P. R., & Sons, Carolina rice, 16.
Lachlaw, W., Bros., Pine, 134.
La Corte, Marquis of, Wine, 88*w*.
La Croix, James, Canned vegetables, 20.
Lacruz, A., Wine, 88*x*.
Lacruz, F., Wines, 88*x*.
La Cruz, V. de, Flax, 88*ii*.
Lactinbros, Wm., Pine, 134.
Lade, F., Wines, 53.
Ladies' Commission, Sweetmeats, 83.
Lafayette, Marquis de, France, 209.
Laferme, Tobacco, etc., 124.
Lafone, Q., Wood, 76; Wines, 86.
Lafont, A., Wheat, 88*c*; Olive oil, 88*ff*.
Lagares, F., Olive oil, 88*ff*.
Lagarú, F., Wine, 88*w*.
Lagarza, E., Flour, 88*r*.
Lage, Municipality of, Wheat, 69.
Lages, District of, Cereals, 69.
Lago, Francisco d'Assis Pereira de, Wine, 111.
Lago & Son, Cigarettes, 81.
Lagomarsino & Cuneo, Macaroni, 21.
Lagraña, C., Angora hair, 88.
Lagrifa, Juan, Corks, 89.
Laguña, Provincial Board of, Oil, 131.
Laguna, A., Wines, 88*x*.
Laguna, C., Olive oil, 88*ff*.
La Hasta, L. D. de, Olive oil, 88*gg*.
Lahiton, P., Hides, 83.
Lahoz, V., Anise-seed cordial, 88*cc*.
Laje, D. A., Rye, 88*f*.
La Linde, Baron of, Olive oil, 88*hh*.
Lamarche & Veillon, Game, etc., 49.
Lamart, A., Liquors, 50.
Lamas & Co., Leather, 100.
Lambas, M., Wheat, 88*c*.
Lambas y Gutierrez, G., Peas, 88*i*.
Lamborn, Lewis, Cultivator, etc., 25.
Lamolla Bros., Cordial, 88*x*.
Lamos, Jose, & Co., Belting, 100.
La Motilla, Marquis of, Wine, 88*z*; Oil, 88*gg*.
Lancki, R. Wine, 125.
Landauer Bros., Rye whisky, 23.
Landauer & Macholl, Liqueurs, 54.
Land Department, Central Pacific R. R. Co., Woods, 15; Grain, 16; Birds, 18.
Land & Forest Economy Union, Flax, 56.
Landfried, P. J., Cigars, 53.
Landis, Israel L., Tobacco, 17; Step ladder, 36.
Landreth, D., & Sons, Cereals, etc., 16.
Landrin, A., Fruits, 49.
Landrin, G., Bonbons, etc., 126.
Landsberger, J., & Co., Champagnes, 22.
Lang & Co., Hemp, flax, 75.
Lang, F. J., Wines, 53.
Langenbach, J., & Sons, Wines, 53.
Langley & Co., Oil, 45.
Lanhoso, Jose, Nuts, 91.
Lanin, N., Liquors, 125.
Lankenau, J. D., Germany, 215.
Lanza, Cav. Salvatore, Wine, 66.
Lanzara, R., Lemons, oranges, 63; Wine, 66.
Lanzarini Brothers, Sausages, 64.
Lanzas, J. A., Wheat, 88*e*.
Lanzon, N., Wheat, 78.
Laorden, J. B., Pepper, 88*m*.
Lapa, Joaquim Pereira, Grain, 94; Beans, 98.
La Patilla, Count of, Flour, 88*s*.
Lapiedra, J., Wheat, 88*e*; Olive oil, 88*ff*.
Lapin, N. & A., Brothers, Cakes, etc., 126.
Laplante, E. de, Wines 51.
La Puebla de Eca, Corporation of, Saffron, 88*m*.
Lara, A. C., Seed, 88*n*; Olive oil, 88*ee*.
Lara, C., Wine, 88*s*.
Lara, M. T. de, Licorice root, 88*m*.
Lara, R. J. de, Oranges, 88*a*; Olives, 88*p*.
Lara y Pineda, R. J., Olive oil, 88*ee*.
Laranja, Manuel Duarte, Wine, 109.
Larcher, Emelia A, Preserved fruits, 104.
Larcher, Marcal, Brandy, 117.
Larcher, Marcal M. A., Preserved fruits, 105.
Larcher, Maria Jose, Vinegar, 117.
La Rioja, Provincial Commission of, Woods, 76; Beans, 79; Skins, 82.
Laroche, A., Coal, 48.
Larrabee, E. J., & Co., Confectionery, 23.
Larrain, Sr. Rafael, Chili, 267.
Larravide, B. de, Fish, 88*a*.
Larrohona, P., Nuts, 77; Beans, 79; Raisins, 84.
Larronde Bros., Wines, 50.
Lasala y Palomares, V., Cereals, 88*h*.
Las Almenas, Count of, Wine, 88*x*; Oil, 88*ff*.
Las Borgas, Corp. of, Wheat, 88*f*; Oil, 88*ff*.
Las Cabezuelas, Count of, Beans, 88*f*.
Las Cuebas, F. de, Olive oil, 88*ff*.
Lasalla y Palomares, Olive oil, 88*hh*.
Lasheras, M., Claret, 88*x*.
Lasierra, F., Wheat, 88*c*; Claret, 88*x*.
Lasierra, J., Wheat, 88*c*; Claret, 88*x*.
Las Palmas, Friends of, Maize, 88*d*.
Lassala, V., Wine, 88*bb*.
Lassala y Camps, V., Beans, 88*l*; Cyperus, 88*m*.
Lassala y Palomares, V., Almonds, 88*c*; Figs, 88*r*.
Latham, W., Wool, 87.
Latonyen, P., Cereals, 88*g*.
Latorre, F., Wine, 88*bb*; Olive oil, 88*hh*.
Lauer & Krämer, Wines, 53.
Laugan, J., Woods, 76.
Launay, de, & Co., Wines, 50.
Laurence & Chapin, Plows, 25.
Laurent, F., Confectionery, 24.
Lauzun & Co., Granite, 48.
Lavado, A., Beans, 88*k*.
Lavarias, A., Wine, 88*bb*.
Laveissiere, J., France, 209.

La Viesca, Marquis of, Oil, 88*ff*; Silk, 88*jj*.
La Viñaza, Count of, Wheat, 88*i*; Seeds, 88*n*; Flax, 88*ii*.
Lawrence & Co., Refrigerators, 139.
Lawrence, Daniel, & Sons, Rum, 23.
Layard, W. P., Oak flooring, 134.
Lazan, Olive oil, 88*ff*.
Lazar Bros., Juices, 54.
Lázaro, O., Anise-seed cordial, 88*bb*.
Lázaro, O. T., Chocolate, 88*dd*.
Lazzaro, Salvatore, Liquors, 64.
Lea & Perrins, Sauce, 40.
Leach, Giró & Co., Wines, 88*t*.
Leacock & Co., Wine, 111.
Leal, A., Oil, 120.
Leal, Costa, & Co., Preserved meats, etc., 103.
Leal, F., Chocolate, 88*cc*.
Leal, Francisco da Costa, Wine, 109.
Leal, M. da C., Flax, 121.
Leamas, Gabriel, Weed, 133.
Leao, A. de, Paina, 75.
Leao & Alves Grist Mill, Wheat flour, 73.
Leao, Antonio Moreira, Grain, 94; Flour, 106.
Leao, Dr. A. E., Cheese, 72.
Leao, E. de, Flax, 75.
Leao, Hermelino de, Coal, 68; Cereals, 69; Rice, 72; Biscuit, 74.
Leao, José Maria Carneiro, Seed, 97.
Leao, Major V. F. de, Matte, 70.
Leao, Manuel da C., Corkwood, corks, 111.
Leao, Rego B. S., Embira, 75.
Leao, Souza, Sugar, 73.
Leas, Manuel da Cunha, Grain, 95.
Leatherbarrows, John, Fencings, 36.
Lebanon Building & Paving Block Co., 155.
Lebre, Manuel Ferreira, Wine, 110.
Lebrun & Co., Wines, 88*v*.
Lecanda, E., Chick peas, 88*l*; Honey, 88*p*.
Le Cocq, Alfredo Carlos, Portugal, 285.
Le Cocq, Joao José, Nuts, 91; Olives, 103; Wine, 117; Wool, 121.
Lecourt, F., Food, 49.
Ledesma Bros., Skins, 82.
Ledesma, Dr., Cotton, 87.
Ledesma, H., Wheat, 78.
Ledger, H., & Co., Pure extract, 40.
Ledoux, C. Z., Cigarettes, 17.
Lee, E. S., Pruner, 33.
Lee, Geo. W., Fodder cutter, 34.
Lee, James, jr., Hay-udder, 31.
Lefèvre & Rémondet, Wines, 50.
Le Franc, Charles, Wine, brandies, 23.
Lefroy, A. H. F., Bermuda, 190.
Legaspi. J., Rye, 83*f*.
Leguizamon, Onesimo, Argentine Rep., 265.
Lehigh Car Manufacturing Co., Wagon, 135.
Lehman, J. W., Sweetmeats, 103.
Lehment, F., & Co., Spirits, 54.
Leipsic Malt Factory, Malt, 53.
Leis, Widow of the Marquis of, Wines, 88*y*.
Leitao, A., Baptista Covilha, Wine, 111.
Leitao, Alberto, Chick peas and beans, 98; Dried damsons, 103.
Leitao, Alipio, Wine, 110.
Leitao, J. P. d'A., Oil, 119.
Leite, A. B. d'O., Grain, 93; Beans, 98; Flax, 121.
Leite & Co., Francisco, Fish, 99.
Leite, Francisco de Moraes, Wine, 110.
Leite, Francisco de Paula, Wines, 109.
Leite, Guilherme da Costa, Wine, 110.
Leite, J. A. P., Oil, 119.
Leite, J. B. de A., Oil, 119.
Leite, Joao Baptista de Araujo, Peas, 98.
Leite, Joaquim M. F., Peas, 98.
Leite, L. M. F., Hemp, 121.
Leite, Severino, Ticus leaves, 68; Vegetable hair, 75.
Leito, Manuel Pinto, Wine, 111.
Leizaur y Rodriguez, G., Wine, 88*y*.
Lemaistre, H., Liquors, 86.
Lemas, Abraham, Birds, etc., 81.
Leme, Pedro Paes, Brazil, 263.
Lemes, Alexandre Maria de, Wine, 110.
Lemos, Antonio da C. d'A., Honey, etc., 102.
Lemos, Antonio Maria Tovar de, Olives, 105.
Lemos, F. A. P., Grain, 93; Wool, 121.
Lemos, Francisco A. P., Honey wine, 101.
Lemos, Francisco Ferreira de, Macaroni, 106.
Lemos, J. G. de, Corn, 93; Oil, 119.
Lemos, Joao Gonzalvo de Sauzo, Beans, 98.
Le Moult, A., Flowers, 151.
Lemp, W. J., Beer, 137.
Lengert, George, & Son, Wagons, 135.
Lenguas, P., Blue vetch, 88*l*.
Lenning, J., Sweden, 240.
Leno de Coronei, Nicolo, Wine, 65.
Lenoir, A., Game, 49.
Lensvelt, G., Table and ship biscuit, 58.
Lentilhac, de, Wines, 50.
Leon, Celestino de, Sugar, 132.
Leon, J. P. de, Vegetables, 88*i*.
Leon, José, Tobacco, 88*m*.
Leon, M. G., Wheat, 88*g*; Peas, 88*k*.
Leon, R., Esparto grass, 88*hh*.
Leon & Santos, Sugar, 132.
Leonard, Henry, Revolving ball, 37.
Leonarde, Q , Seed, 131.
Leonoff Sugar Manufacturing Co., Sugar, 125.
Leopold, E. L., Baskets, 151.
Le Page, Wines, 74.
Lepage, F. J., Pharmaceutical products, 75.
Lepage, J., Cigarettes, 70.
Lepanto, Provincial Board of, Honey, 131.
Lerche, Emile de, Russia, 294.
Lerda y Daniel, José, Peas, 88*i*.
Leri, Petrona de, Grape syrup, 85.
Lérin, E. C., Figs, 88*b*.
Leroy, L., Plants, 157.
Lesage & Paignard, Preserves, 50.
Lescano, J. D., Leaves, 87.
Lessa, Antonio dos Santos, Beans, 98.
Letterstedt & Co., Wheat, 43.
Le Valley, Darius A., Stool, 35.
Levchine, T., Peas, 124.
Leven, M., jr. & sen., Skin, 49.
Levert & Co., Liquors, 58.
Levey, G. C., Victoria, 182.
Levin, W. H., New Zealand, 177.
Leving, J., New South Wales, 180.
Levita, Joaquim Fortunato, Brandy, 111.
Levita, José Eduardo, Brandy, 117.
Levy, Edward S., Raw cotton, 24.
Levy, James, & Bro., Whiskies, 23.
Levy, Salamon, Snuff, 70.
Lewis, James H., Potato digger, 31.
Lewis, W. K., & Bros., Preserves, etc., 19.
Leygonier, C., Olive oil, 88*gg*.
Lhernault, Auguste, Machine, 38.
Liafio, M. G. de, Wheat, 88*g*.
Libby, McNeal, & Libby, Meats, 20.
Liberia, Statistics of, 275.
Liborio & Ferreira, Chocolate, 69.
Liccioli, Filippo, Wine, 65.
Lichtenfelder, Furniture, 157.
Lichtenstein, J., Wine, 88*cc*.
Lidy, Geo. F., & Co., Machines, 32.
Lieber, R., Model of brewery, 138.
Liebig, Franz R. von, Austria, 221.
Liebman, S., & Sons, Beer, 136.
Liebman's, S., Sons, Malt, 136; Beer, 137.
Liendo, M., Wine, 88*z*.
Likhonin, G., Cranberry juice, 125.
Lilieroth, V., Punch, 126.
Lill & Bullen, Malt, 136.
Lilpop, Rau, & Loevenstein, Reaper, etc., 127.
Lima, A. A. de, Oil, 119.
Lima, A. J. F., Grain, 93; Beans, 98; Wine, 111.
Lima, Antonio dos Santos, Brandy, 111.
Lima, Carlos Joas Ribeiro, Wine, 109.
Lima, Dias, Chocolate, 69.
Lima, F., Coffee, 71.
Lima, Honorio Fiel, Preserved fruits, 105.
Lima, Joao Ferreira, Wine, 111.
Lima, Joao José Xavier de, Wine, 109.
Lima, Jorge Abraham d'Almeida, Wine, 116.
Lima, José Duarte Cartaxo, Wine, 110.

Lima, Lino Anciaes, Wheat, 94; Flour, 105.
Lima, Meyer, & Sons, Oil, 119.
Lime, Cement, & Plaster Mfg. Co., Lime, 48.
Liñan, Diego, Rice, mongos, 130; Beneseed, 131; Sugar, 132.
Linares, C., Cheese, 82.
Linares, C., Hemp, 88*hh*.
Linares, J. R., Almonds, 88*a*; Cereals, 88*c*; Peas, 88*i*.
Linares, Salvador, & Alejandro, Beans, 88*k*.
Linares y Obeso, D., Wine, 88*v*.
Lindahl, Dr. J., Sweden, 240.
Lindecke, A. G., Wines, 54.
Lindermann, O., & Co., Cages, 37.
Liné y Canes, J., Camomile flowers, 88*m*.
Link, J., Barrels, 138.
Liñola, Corp. of, Camomile flowers, 88*m*.
Lirer, Manuel, Sugar, 132.
Liro, Hidaka, Japan, 259.
Lisbao, Antonio da Silva, Wine, 109.
Lisboa, Luis Emilio, Wine, 110.
Lisbon, President of the Municipal Chamber of, Tallow, 101.
Lisbon Tobacco Co., Tobacco, 99.
Lista, Manuel, & Schröeder, T., Tobacco, 81.
Lister Bros., Glue, etc., 19; Fertilizers, 36.
Lithographic Stone Quarry Co., Stone, 48.
Litta, Count B., Italy, 249.
Little Creek Canning Co., Fruits, etc., 20.
Littlejohn, L., Bung bushes, 138.
Live Stock, Exhibitions of, 142–144.
Llaberia, J. S., Wine, 88*aa*.
Llampallas, A., Carobs, 88*l*; Wines, 88*t*.
Llander, M. O., Carobs, 88*l*.
Llandes, M. O., Seeds, 88*n*.
Llanos, A., Peas, 88*k*.
Llansádo y Pamies, J., Olive oil, 88*gg*.
Llansola, V., Wax, 88*o*.
Lledo y Gomis, V., Hemp, 88*hh*.
Llobet, A. M., Wine, 88*u*.
Llorat y Fontanillas, J., Wine, 88*aa*.
Llovera y Llovet, V., Wine, 88*v*.
Lloveras, Lisandro, White corn, 78.
Lloyd & Sons, Flour Mills, Machines, 41.
Lluch, F., Wine, 88*bb*.
Llurba, F., Almonds, 88*b*.
Llurba, J. B., Chick-peas, 88*l*.
Lobao, Francisco Rasquilha, jr., Grain, 92.
Lobo, B. J., Corn, 93; Cheese, etc., 100.
Lobo, Bernardino Vas, Wine, 111.
Lobo, Francisco Teixeira, Wine, 110.
Lobo, José Maria, Nuts, 91; Grass, 93; Beans, 98; Cheese, 99; Oil, 119.
Lobo, José Nogueira Pereira, Wine, 111.
Lobo, Nicholau Joaquim, Wine, 110.
Lobo, T. A. de A., Oil, 119.
Lockhart, Capt., R.A., Bermuda, 190.
Lockwood, James L., & Co., Dryer, 37.
Loewer, V., Beer, 137.
Löfvenskiöld, Ch., Drawings, 60.
Logette, A., Clasps, 51.
Loggie, A., & Co., Salmon, trout, cranberries, 41; Oil, 45.
Loio, G. da S., Oil, 119.
Lombard, Daniel, Shelling machine, 34.
Lombart, Chocolates, 51.
Long, Allstatter, & Co., Rake, etc., 29.
Long Bros., Designs, 152.
Long & Co., Wax, 72.
Long, J. C., jr., Prepared food, 38.
Longaker, Thomas F., Staple hook, 34.
Lootchinsky, L., Cocoons, etc., 127.
Lopes, Alvaro Pereiro, Flour, 105.
Lopes, Antonio Camillo da Silva, Wine, 111.
Lopes, Jacintho, Grain, 93; Seed, 98; Wines, 109.
Lopes, Joao da Cunha, Wine, 111.
Lopes, Joaquim Emilio, Wine, 117.
Lopes, José Martins Thomar, Figs, 91.
Lopes, José Olaia, Wines, 111.
Lopes, José Ramos, Beans, 98; Wines, 110.
Lopes, Manuel Joao, Wine, 111.
Lopez, A., Brandy, 88*s*; Wines, 88*u*.
Lopez, B., Esparto grass, 88*kk*.
Lopez, C., Brandy, 88*s*.
Lopez, E., Olive oil, 88*ee*.
Lopez, F., Wines, 86; Coffee, 130.
Lopez, F. R., Sardine oil, 88*o*.
Lopez, J. A., Wines, 88*v*.
Lopez, J. B., Hemp ropes, 88*kk*.
Lopez, J. J. B., Wines, 88*v*.
Lopez, J. M., Cereals, 88*e*; Olive oil, 88*ff*.
Lopez, L. M., Wine, 88*u*.
Lopez, M., Barley, 88*e*; Cereals, 88*g*; Chocolate, 88*dd*; Olive oil, 88*ff*.
Lopez, M. G., Honey, 88*p*.
Lopez, P., Wine, 88*v*.
Lopez y Pastor, L., Olive oil, 88*kk*.
Lopez & Vaguez, Chocolate, 88*dd*.
Lopo, C., Cereals, 88*c*.
Lopo, F., Cereals, 88*c*.
Lord & Co., F., Liquor, 55.
Lord, G. W., New South Wales, 180.
Lorenzano, Corp. of, Nuts, 88*a*; Maize, 88*f*.
Lorenzo, C., Arrowroot, 130; Sugar, 132.
Lorenzo Puig Bros., Wine, 88*bb*.
Loreti, Gioacchimo, Candy, 66.
Lorillard, P., & Co., Tobacco, 17.
Loring Bros., Wheat, 88*i*; Wines, 88*cc*; Grass, 88*ii*.
Loro, Francisco, Maize, 88*d*.
Losada, M. J., Wine, 88*y*.
Losee, Alfred, Folding coop, 37.
Lossy & Co., Wines, 50.
Lottier, Lawrence, Manufactured tobacco, 17.
Lotzbeck Bros., Snuff, 53.
Loueiro, Antonio Lopez, Beans, 98.
Louit Bros. & Co., Vinegar, 50.
Louquéty & Co., Cements, 48.
Loureiro, Bento Maria, Honey, 101.
Lourinho, Antonio Jose, Nuts, 91.
Louro, Francisco Rico, Wine, 111.
Lousa, Jose Luis Rodrigues, Grain, 93.
Louza, A. P. d'A., Flax, 120.
Lovell & Buffington, Tobacco, 17.
Lovering, J. S., Plants, 151.
Lovett, Jos. L., Tobacco, 17.
Lovey, Edward, Beehives, 40.
Loy, José, Bitters, 85.
Lozano, J., Wheat, 88*i*.
Lozano, J. A., Wool, 88*jj*.
Lozano, M. S., Barley, 88*g*.
Lozoya, Marquis of, Wool, 88*jj*.
Lubary, Tomas, Wheat, 79; Flour, 85.
Lubian, S., Cereals, 88*d*.
Luc Letellier de St. Just, Canada, 205.
Lucca, de Francesco, Paste for soup, 64.
Lucena, Corporation of, Wheat, 88*d*.
Lucena, N., Wine, 88*z*.
Luckhaupt Bros., Kegs, 138.
Lugo, L. B. de, Tobacco, 88*m*.
Lugo, Provincial Commission of, Eels, 88*n*.
Luguiz, L., Olive oil, 88*ee*.
Luke & Tolton, Straw cutter, 46.
Lullato, G. Batta, Liquors, 65.
Luna, J., Preserves, 88*b*.
Lund, George, Anchovies, etc., 61.
Lundgren, P. W., Preserved fish, 59.
Lundstrom, C. F., Sweden, 240.
Lundstrom, C. L., Sweden, 240.
Lutoslavski, T., Beer, 126.
Lutz, R. F., Kegs, 138.
Luxardo, Girolamo, Liquors, 55.
Luxembourg, Statistics of, 256.
Luz, Ferreira de, Matte, 71.
Lyka, Dementer, Wheat, 55.
Lyman, T. C., & Co., Ale, 137.
Lynch, Peter, Hog scalders, 135.
Lynde, B. A., Malt, 136; Malt shovels, 137.
Lysckowice Sugar Mfg. Co., Sugar, 125.
Lysell, Aug., Anchovies, 59.
Lysholm, Jorgen B., Norwegian brandy, 62.

M.

Maas, A. E., Boats, nets, hooks, etc., 57.
Mabbett, Truman, Cultivators, 26.

Mabille Bros., Wine presses, 51.
Macan, Luis, Sugar, 132.
Macatangay, Ajaton, Cotton, 132.
Macatangay, J., Nets, 131.
Macatee & Bro., Sumac, 15.
Macaya, J. R., Chocolate, 88*dd*.
Macdougall, D., Canada, 204.
Macedo, Antonio Luis de, Wine, 110.
Macedo & Azeredo, Wax, 72.
Macedo, Camillo de, jr., Brandy, 110.
Macedo, J. de, Liquors, 74.
Macedo, Joaquim Augusto de, Wine, 117.
Macedo, Leon, Oil, 132.
Macedo, Luis A. d'A. Estremos, Wine, 110.
Macedo Pinto, J. F. de, Beans, 98; Fruits, 105.
Macedo, T. de, Matte, 71.
Macedo, Ventura Luis de, jr., Beans, 98.
Macfarlane, N. H., & Co., Refined lard, 19.
MacGowan, John K., Table sauce, 20.
Machado, Domingas Alves, Wine, 115.
Machado, Honorato J. T., Wine, 111.
Machado, Joao José de Sauza, Timber, 90.
Machado, Manuel Alves, Wine, 115.
Machado, M. B., Flax, 121.
Machado, Marcondes, Coffee, 71.
Machado, P. X., Grain, 92; Wine, 110, 117.
Machado, R., Seeds, 77; Straw, 81.
Machado, Thomaz José, Wines, 111.
Macias, Francisco de Pera, Grain, 94.
Maciel, D. F., Steer skins, 72.
Mack, J. N., Alewives, 45.
Mackay, A., Queensland, 195.
Mackay, John, Quintessences, 40.
Mackenzie, T. J., Plants, 152.
Macleay, W., New South Wales, 180.
Macpherson, Hon. J. A., Victoria, 182.
Madeira, Alexandre J., Wine, 111.
Madeira, Antonio, Brandy, 115.
Madeira, Joaquim Anastasio, Grain, 93.
Madeira, José Povoa de Midoes, Wine, 110.
Madeira Sugar Mfg. Co., Sugar, 106.
Madrid National Manufactory of Tobacco, Tobacco, 88*m*.
Maegerlein, Chas., Hose, 139.
Magalhaes, Almeida, Coffee, 71.
Magalhaes, Antonio de Barros, Nuts, 92; Grain, 94; Wine, 115.
Magalhaes, F. L. d'Almeida, Coffee, 69.
Magalhaes, Francisco F. Sinde, Beans, 98.
Magalhaes, Francisco José, Wine, 111.
Magalhaes, Francisco T., Wine, 117; Flax, 121.
Magalhaes, Joao da Veiga, Wine, 115.
Magalhaes, Joao Guedes de, Wine, 110.
Magalhaes, José J. do S., Wax, etc., 102.
Magalhaes, Luis Antonio, Grain, 92; Timber, etc., 105.
Magalhaes, Luis F. da S., Wine, 110.
Magalhaes, Manuel Alexandre de, Wine, 115.
Magalhaes, Roberto Augusto P. de, Wine, 110.
Magalhaes, Vicente Xavier, Wine, 111.
Magaz, Corporation of, Rye, 88*e*; Beans, 88*j*.
Magazzin, Matteo, Liquors, 55.
Magdelin, Fernando, Beer, 86.
Maginly, Thomas J., Plants, 154.
Maglionl, F., Skins, 83.
Magnaghi, Girolamo, Vermouth, 65.
Magriña, A., Almonds, 88*b*.
Magriña, L., Hazelnuts, 88*b*.
Magriña, L. de, Wines, 88*bb*.
Magriña, M. S., Hazelnuts, 88*b*.
Magriña y Suñer, A., Olive oil, 88*gg*.
Mahé, Gustave, Golden wine, 23.
Mahmoud, M., Egypt, 252.
Maia, José Gomes, Seed, 98.
Maia, Manuel de Arevedo, Beans, 98.
Maillfert & Mathelin, Sand, 48.
Maillard, Henry, Confectionery, 24.
Maille & Tandeau, Anchovies, 49; Vinegar, 50.
Mainba, Provincial Board of, Cinnamon, 130.
Maino, R., Tea, 128.
Maizner, N. Lanenta, & Fzabelin, Sugar, 125.
Makaroff, P., Wines, 125.
Makoto Fukui, Japan, 259.
Malatesti, Augusto, Wine, 65.
Malfaz, A., Wine, 88*cc*.
Malgarejo, Maria Josefa, Wheat, 88*d*.
Malheiro, Lourenco, Portugal, 284.
Malheiro, Manuel Joao Barrellas, Corn, 94.
Malinverni, Secondo, Rice, 63.
Mallet, I., Nectar, 88*s*.
Malligand, E., jr., Alcohol tester, 52.
Malta, Alfonso Bernardino Ochoa, Grain, 94.
Maltese, Allessandrello, Wine, 65.
Maltese, Felice, Wine, 65.
Maltzoff, M., Wheat, 123.
Malvichini, N., Wheat, 78.
Mamanal, L., Seed, 131.
Mame, A., France, 209.
Mamede, Wine, 74.
Mancini, Antonio, Wine, 65.
Mandado, N., & Sons, Sardines, 88*a*.
Mangataren, Parson of, Bark, 133.
Mangold, C., Fish, 124; Meats, 125.
Manila, Prov. Board of, Nuts, 130; Shells, 131.
Manjou, J. A., Olive oil, 88*ff*.
Manley, Almond D., Machine, 33.
Mann, H. F., Harvesting machines, 30.
Mann, J. W., Grass, 44; Drill, 46.
Mannino, Francesco, Baron, Wine, 65.
Mansell, Carré, & Co., Sugar, 73.
Mansfield, G. H., & Co., Fishing lines, 18.
Mansfield Machine Works, Steam engine, 34.
Mansilla de las Mulas, Corporation of, Cereals, 88*e*; Vegetables, 88*j*.
Mansilla Mayor, Corporation of, Cereals, 88*e*; Vegetables, 88*j*.
Manso, José Marques, Orgeat syrup, 106.
Mantell, The Hon. Walter B. D., New Zealand, 177.
Manuel, Antonio Manguel de, Nuts, 92.
Manuel Luis, Gondivae, Grain, 94.
Mapes, Chas. V., Guano, 36.
Mar, R., Camomile flowers, 88*m*.
Maranhao, Com. of, Coffee, tobacco, 71.
Maranhao, Province of, Cotton, oil, 74.
Marburg Bros., Tobacco, 17.
Marc, Gabriel, Collection of roses, 154.
Marcal & Bro., Wool, 121.
Marcal, J. L., Corkwood, 89; Honey, oil, 102.
March, J. de, Wine, 88*aa*; Olive oil, 88*gg*.
Marchand Bros., Liquors, 50.
Marcon, W. H., Crushed bones, 46.
Marcos, E., Wheat, 88*g*.
Maré, C., Peas, 49.
Marga, E., Marble, 48.
Margales, F., Almonds, 88*b*.
Margalhaes, Francisco T., Corn, 93.
Margalhaes, Louis Antonio, Nuts, 90.
Margarido, Luis J. F., Almonds, 91; Sumach, 99.
Marge, jr., Patés, 51.
Margenas, A. B. R., Beans, 88*l*.
Margenat, A. B., Millet, 88*h*; Seed, 88*n*.
Margiochi, F. S., jr., Corkwood, 89; Honey, etc., 102.
Maria d'Andrade, J., & Bros., Leather, 100.
Maria do, Gloria, & Co., Fruits, 103.
Maria, J. M. S., Dried beef, 88*p*.
Marie, Angelica, Corkwood, 89.
Mariette Bey, M., Egypt, 252.
Marin J., Wine, 88*x*.
Marin, J. F., Beans, 88*k*.
Marin, Juan J., Spain, 280.
Maringan, Jocinto, Oil, 132.
Marini, Ambrogio, Liquors, 66.
Marini & Poggi, Liquors, 66.
Mariolaki, P., Wool, 126.
Marinska Model Farm, Cereals, 123; Beans, 124; Wool, 126.
Marizon, F. M. C. de, Laraginha, 73.
Mark, J. A., Raisins, 88*r*.
Mark, J. & F., Beer, 137.
Markham, H. C. & D. C., Sink, 35.
Markó & Weyden, Turkish prunes, 55.
Marmello, José, Corn, 93.
Maroni, J., Wheat, 88*c*; Olive oil, 88*dd*.

Marot, C. H., Magazine, 151.
Marques, Estevao José, Brandy, 111.
Marquês, J., Wines, 88*l*.
Marques, Jacintho, Wine, etc., 115.
Marques, Joao A. de M., Wine, 110.
Marques, Joaquin Moreira, Portugal, 284.
Marques, José Parada, jr., Wines, 115.
Marques, Maria José Perpetua, Wine, 111.
Marquez, Cavalit, & Co., Hemp thread, 88*ii*.
Marquez de Pombal, Wines, 111.
Marquez, R. J., Wines, 88*x*; Olive oil, 88*ff*.
Marquise Foundry & Construction Works, 48.
Marreco, Miguel Antunes, Grain, 95.
Marron, J. V., Wheat, 88*i*; Flax, 88*ii*.
Marscilles Gas Co., Iron, 48.
Marsh, A. M., Malt, 136.
Martel, Joao Campello Trigueiros, Wine, 111.
Martel, Joaquim T. P., Cheese, oil, 100.
Martel, Joaquin Trigueras, Olives, 91.
Martens, J., Coffee extract, 125.
Marti, Bornas, & Co., Wheat, 88*h*.
Marti y Badia, R., Mistela, alcohol, 88*aa*.
Marti, D. G., Wheat, 88*e*; Wines, 88*w*.
Marti, E., Preserves, 88*r*.
Martillaro, Mar. Carlo, Wines, 65.
Martin & Colombo, Liquors, 88*w*.
Martin, F. G., Wines, 88*z*.
Martin, F. R., Walnuts, 88*a*.
Martin, L. C., Nuts, 88*b*; Figs, 88*g*; Oil, 88*ff*.
Martin, Lorenzo C., Wine, 88*z*.
Martin, P. F., Iron, 48.
Martin, R., Peas, 88*i*.
Martin, S., Wheat, 88*f*.
Martin, Stephen, Potato digger, 46.
Martin & Sons, Oatmeal, 44.
Martin y Valverde, L., Marchpane, 88*r*.
Martinez, A., Wine, 88*v*.
Martinez, E., Wines, 88*x*.
Martinez, G. G., Wine, 88*w*.
Martinez, Gomez, & Co., Rice, 88*r*.
Martinez, Hercules, Corn, 78.
Martinez, J., Shellfish, 88*o*; Preserves, 88*q*.
Martinez, J., Bros., Olive oil, 88*gg*.
Martinez, J. P., Honey, 88*p*.
Martinez, Jonas. Ostrich feathers, 84.
Martinez, L., Hides, 82.
Martinez, L. P., Wine, 88*x*.
Martinez & Laplaceta, Wool, 87.
Martinez, R. A., Cereals, 88*f*; Beans, 88*j*.
Martinez, Sainz, Bros., Wheat, 88*g*; Pastes, etc., 88*s*.
Martinez, V , Ybor, & Co., Cigars, 17.
Martini, G., Spirits, etc., 126.
Martini, Sola, & Co., Vermouth, 65.
Martins, Andre, Wax, 101.
Martins, Anselmo José, Grain, 94; Beans, 98.
Martins, Ant., Barley, 68.
Martins, Antonio J. da S., Olives, 91.
Martins, Benedicto Matheus, Wine, 110.
Martins, Isidoro, Dried fruits, 104.
Martins, J. A., Barks, 68.
Martins, Jeronymo, & Son, Nuts, 90; Beans, 98; Dried fruits, 105.
Martins, Joao Pedro, Wines, 111.
Martins, Joaquim, Beans, 97.
Martins, José da Veiga, Wine, 115.
Martins, José Maria, Wines, 111.
Martins, L., Tea, 71.
Martins, Luis Antonio, Wine, 110.
Martins, Manuel José, Wine, 115.
Martins, Manuel José, jr., Beans, 98.
Martins, Miguel Castro, Wines, 110.
Martos, J. F., Flour, 88*r*.
Maru, T., Ramie, 129.
Marunaka, M., Tea, 128; Silk, 129.
Marzi Bros., Wines, 64.
Mas Blanch, J. C. de E. de, Rice, 88*h*.
Masa, J. G. de la, Olive oil, 88*gg*.
Masashi Shioda, Japan, 259.
Masbate, Prov. Board, Pitch, 130.
Mascarenhas, Luis de, Dried figs, 103.
Mascarenhas, S., Dried fruits, 103.
Mascaro, J., Peas, 88*i*; Olive oil, 88*ee*.
Masetti, Piero Pompeo, Count, Wine, 66.
Masia, F., Saffron, 88*m*.
Massachusetts, State of, Agricultural products, 15; Maps, plans, 37.
Massardo, Nicolo, Preserves, 64.
Masset, G., Crackers, 86.
Massey Mfg. Co., Grain crusher, 46.
Massien, D., Wine, 88*v*.
Massó y Soler, F., Wheat and maize, 88*e*; Vegetables, 88*j*.
Massuchi, M., Silk, 88.
Mast, P. P., & Co., Grain drills, etc., 27.
Masuelli, sr., Rafael, Chili, 267..
Mata, T. de la, Liquors, 88*y*.
Mate, A., Wheat, 88*d*.
Mateos, F. M., Chick peas, 88*l*.
Matheus, José Paulino S., Wine, 110.
Matheys, Chas. F., Ground bone, 36.
Matilla, C., Wheat, 88*d*; Peas, 88*j*.
Matscheko, M., Austria, 221.
Matsuo, I., Bamboo, 128.
Matsuya, H., Liquors, etc., 120.
Matta, A. da F., Nuts, 91; Beans, 99; Hemp, 120.
Matta, Antonio Nunes, Honey, etc., 102.
Matteissen, N., Gall nuts, 123; Pepper, 124; Flour 125.
Matto, Antonio Mendes de, Fruits, 95.
Matto Grosso, Province of, Tobacco, 71; Cotton, 74.
Mattos, Bento F. M., Wine, 110.
Mattos, Joao C de C., Wine, 111.
Mattos, Manuel Antonio de, Olives, 91; Seed, 98; Honey, etc., 102.
Mattos, Manuel Henrigues de, Beans, 98.
Mattos, Maria do Livramento, Preserves, 103.
Mattos, R. de, Linen, 120.
Mattos, Rosa de, Flax, 121.
Mattoso, Alfredo de Moura, Wine, 117.
Maua, Viscount of, Sugar, 73.
Maule, James S., Mower, reaper, 30.
Mauprivez, A., Tapioca, 50.
Maurice & Guenin, Corking machines, 51.
Mauritius, Statistics of, 193.
Mavit, José, Honey, 84.
Maw, Thomas, Sauces, 40.
Maximoff, B., Hops, 124; Flax, 126.
Maxit, José, Potatoes, 80.
Maxwell, David, Straw cutters, 46.
Maxwell, Edward, Cotton, 24.
Maxwell & Goodman, Raw cotton, 24.
Maxwell, Rowland, & Co., Shovels, etc., 25.
May, David T., & Co., Artificial leg, 38.
Mayer, A., Liquors, 50.
Mayer & Bachman, Beer, 137.
Mayer, C., Fountain, 153.
Mayer & Co., Winnowing machine, 54.
Maylasky, Cotton, 74.
Mayo, I. A., Liquors, 88*y*.
Mayo, M. C., Mowing machine, 30.
Mayo, P. H., & Bro., Plug tobacco, 17.
Mayoral, A., Wheat, 88*g*; Peas, 88*k*.
Mayordomo, M., Honey, 88*o*.
Mayorga, R. D., Beans, 88*j*; Wine, 88*z*.
Maza, J. G. de la, Barley, 88*g*.
Mazarron, M., Wines, 88*v*.
Mazo, Julian, Corn, 78; Raisins and figs, 84.
Mazorra, M., & Son, Wine, 88*v*.
Mazziotti, Antonio Maria, Wine, 110.
McBride, Miss Sarah J., Artificial flies, 19.
McCann, John, Oatmeal, 40.
McClunie, T., Vases, designs, 153.
McClymont, G., Wool, 88.
McCredie, T., Malt, 136.
McCulloch, Hon. Sir J., Victoria, 182.
McDonald, A. S., Cultivator, 46.
McDonald, M. C., Crystal drips syrup, 22.
McDougall, John, Flour, 45.
McElroy & Co., Clay pipes, 39.
McEwen, G., South Australia, 184.
McGaughy, B. R., Cotton, 24.
McIlvaine, John H., Birds, 18.
McIlwraith, J., Victoria, 182.
McIntyre, D., New Zealand, 177.
McIntyre, J., Victoria, 182.

McKay, Thomas, & Co., Oatmeal, 44.
McKechnie, J. & A., Ale, beer, 137.
McKelvey, Jas., Refrigerators, 47.
McKenzie, Wm., Potato digger, 46.
McLaughlin, J. M., & Son, Teaseis, 18.
McLaurin, Edmund, Plow, 46.
McLeod, McNaughton, & Co., Ales, 45.
McLeod, R., Star fish, 45.
McLeod, R. E., & Co., Cheeses, 45.
McMentry, John, Reaper and mower, 31.
McMurray, L., & Co., Canned vegetables, 20.
McNaughton & Co., Bermuda vegetables, 16.
McPherson, D., Automatic grain binder, 31.
McSherry, D. E., & Co., Drills, 27.
Mechanical Bakery, Cora, 93.
Meck, C. von, Sugar, 125.
Meder, J. J., Swan gin, 58.
Medina del Campo, Corporation of, Wheat, 88*h*; Wine, 88*cc*; Wool, 88*jj*.
Medina, J., Skins, 82.
Medina, L. R., Woods, 77; Nuts, 84.
Medinaceli, Duchess, Olive oil, 88*ee*.
Medinaceli, Duke of, Olive oil, 88*ee*.
Medino, Ildefonso, Abaca, 133.
Medrano, F., Barley, 83*e*.
Medrano, J., Wine, 88*v*; Olive oil, 83*ee*.
Medrano, S. B., Skins, 88*o*.
Meehan, Thomas, Seeds, 18; Plants, 154.
Meeus, E., Belgium, 220.
Mehlshmidt, Franz, Kid leather, 55.
Meijerberg, C. J., Sweden, 240.
Meira, Mathias, Seed, 98.
Meirelles, Antonio N. de C., Wine, 110.
Mejia, I., Cereals, 88*h*.
Melfi, Baron, G. B., S. Antonino, 66.
Melgarejo, M., Wheat, 88*e*.
Melgarejo, M. J., Cheese, 88*o*; Grass, 88*ii*.
Melian y Artiles, M., Almonds, 88*a*.
Melleiro, F. C., Macaroni, 118.
Mellen & Co., Feathers, 19; Tickings, 24.
Mellen, L. F., Tobacco, 17.
Mellin, Gustav, Food, 40.
Mello, Antonio José, Wax, 101.
Mello, Antonio Maria de, Wine, 111.
Mello, Bento de Castro, Beans, 97; Wine, 107.
Mello, C. de, Cotton, 74.
Mello, Faro Joaquin Carvalho, Nuts, grain, 92.
Mello, H. O. de, Wine, 110; Oil, 119.
Mello, J. C. de, Rice, 69; Cotton, 74; Wine, 110.
Mello, J. J. de, Oil, 120.
Mello, José de Thomar, Wine, 111.
Mello, Luis de M., Sweetmeat, 103.
Mello, Miguel Antonio de Sousa, Wine, 111.
Mello Netto, Franc de Paula, Cocoons, 75.
Menchero, E., Opium, 83*m*; Wine, 88*y*.
Mendes, Augusto A. E., Meats, 103.
Mendes, Bernardo, Corn, 93.
Mendes, Carlos da Costa Pereira, Wine, 117.
Mendes, Casimiro E., Nuts, 91, 98; Oil, 119.
Mendes, J. J. S., Oil, 119.
Mendes, J. Olinto, Honey, 72; Liquor, 73.
Mendes, L. A. S., Grain, 96; Chestnuts, 105; Flax, 121.
Mendes, Olinte, Corn, 69.
Mendes, Raymondo J. S., Seed, 99; Oil, 119.
Mendevil, Fidel, Sugar, 85.
Mendez, A., Wheat, 88*g*.
Mendez, A. P., Peas, 88*k*.
Mendez, B. D., Tobacco, 88*m*.
Mendez, F., Cereals, 88*g*; Peas, 88*k*; Olive oil, 88*gg*.
Mendez, J. P., Cereals, 88*f*.
Mendez & Keller, Sugar, 85.
Mendez, U. M., Wine, 88*y*.
Mendonca, J. T. de O., Oil, 119.
Mendonca, Manuel F. de, Corkwood, 89.
Mendonca, Manuel Marcal, Wine, 111.
Mendonca, Thomaz A. de, Starch, etc., 106.
Mendosa, G., Coffee, 131.
Mendouca, M. J., Tobacco, 70.
Mendoza, Agricultural Villa, Corn, wheat, 80.
Mendoza, F., Olive oil, 88*hh*.
Mendoza, I. H., Olive oil, 88*gg*.
Mendoza, Provincial Com. of, Resins, 76; Birds, 81; Skins, 83; Hemp, 87; Cacti, 159.
Menezes, B. A. de, Liquor, 73.
Menezes, C., & Co., Cork, 90.
Menezes, José Correa, Dried fruits, 103.
Menezes, José de Vasconcellos, Woods, 89; Grain, 94; Beans, 98; Honey, 102.
Menezes, José Maria da Silveira, Wine, 110.
Menezes, José Rabello Cardosa, Wine, 115.
Menezes, Manuel Antonio, Figs, 91; Wine, 115.
Menezes, Rev. M. de, Tobacco, 70.
Ménier, Chocolate, 51.
Menier, Emile, Cocoas, 40.
Mens, R. von, Wool, 54.
Mercado, M., Wines, 88*x*.
Merch, M., Cotton, 74.
Mercier, E., Wines, 50.
Merck, Maxim, Tobacco, 70.
Mercurelli, Pietro, Leather, 63.
Meriam Packing Co., Hides, tallow, etc., 19.
Meric & Co., Coffee, 88*m*; Chocolate, 88*dd*.
Merino, M., Wheat, 88*f*.
Merlo, Vincenzo, Dried figs, 64.
Merman, G., Wines, 50.
Merman, J., & Co., Wines, 50.
Merman & Maitre, Wines, 50.
Merryweather, A. E., Aloe, 152.
Mesa, F. C., Preserves, 88*g*; Brandy, 88*u*.
Meshtcherin, J., Winnowing machine, 127.
Meson, J., Olives, 88*p*.
Meson, J. A., & Son, Olive oil, 88*dd*.
Mesones, M. B., Wine, 88*cc*.
Mesquita, Antonio da Silva, Wines, 111.
Mesquita, P. J. de, Corkwood, 89; Nuts, 90; Linseed, 99; Wine, 117; Flax, 121.
Messina, Special Com., Sicilian products, 67.
Mestrezat & Co., Wines, 51.
Metternich, Prince von, Wines, 53.
Metzger Bros., Beer, 65.
Meuhort, Jos., Flour, 45.
Meukow, A. C., Brandies, 50.
Meuschel, J. W., sr., Wines, 53.
Mexico, Statistics of, 271.
Meyer, C. H., Germany, 215.
Meyer & Coblenz, Wines, 54.
Meyer, E., Bitters, 54; Wheat, 79; Hemp, 87.
Meyer, L., Fig coffee, 124; Gingerbread, 126.
Meyer, Samuel B., Leather, 61.
Meyerhofer, C., Beer, 136.
Meyers, A. G., Compound, 138.
Mezio, Calcedonio, Wine, 65.
Michel, S., Wines, 86.
Michelond, Miguel, Peach sugar cane, 80.
Michigan Double Stave Barrel Co., Barrels, 25.
Michigan Pomological Society, Apples, 15.
Michigan State Agricultural College, Farm products, 16; Birds, etc., 18.
Michigan, State of, Soils, 38.
Michon & Gussac, Brandy, 115.
Middleton, G. W., & Co., Alcohol, 22.
Midi Phosphate Mfg. Co., Lime, 52.
Migerva, F., Austria, 221.
Mignot, A. J., & de Block, A. A. M., Cigars, 57.
Migueis, Antonio Dos Santos, Portugal, 264.
Migueis, J., Wool, 122.
Miguel, R., Almonds, 88*b*.
Milborn Wagon Co., Wagons, 135.
Mildred, Juan, Wheat, barley, 78.
Miles, W. A., & Co., Ale, 136, 137.
Mill Hill Wool & Rag Extr. Co., Wools, 41.
Milla, M., Olive oil, 88*ee*.
Miller, A. S., Fruit ladder, 32.
Miller, Chas. L., Pumpkin flour, 22.
Miller, Frederick A., Condition powders, 38.
Miller, Geo., & Sons, Confectionery, 23.
Miller, H. J., & Co., Maple sugar, 22.
Miller & Hayes, Ferns, 151; Designs, 153; Plants, 154.
Miller, J. & J., Extract, 44.
Miller & Sievers, Ferns, 151; Cones, 155.
Miller & Wallace, Texas plow, 25.
Millett, D. Caldwell, Hive and bees, 37.

Milligan & Higgins Glue Co., Glue, 19.
Mills', B., Sons, Oakum, 24.
Mills & Combs, Wagon, 135.
Mills, Peck, & Co., Hoes, 29.
Mills, William H., Wines, 22.
Mina, S. Thorne de, Preserved fish, 104.
Mindanao, Provincial Board of, Gogo, 130.
Minobe Chiubeye, Tea, 128.
Miñon, P. A., Honey, 88*b*.
Minutillo, Giovanni, Liquors, 65.
Mira, José Maria de, Wine, 111.
Mira, Jose Paulo de, Olives, 91; Grain, 96; Honey, 102.
Miraïles, C., Preserves, 88*b*.
Miranda, Antonio Augusto Lobo de, Almonds, 91; Grain, 92; Honey, etc., 102; Wool, 122.
Miranda, Antonio Bernardino, Wine, 115.
Miranda, Bernardo V. de, Sugar, 132.
Miranda de Ebro, Corporation of, Maize, 88*d*; Cereals, 88*d*; Preserves, 88*b*.
Miranda, Felix H. G. de, Wine, 111.
Miranda, J., Acacia, 77.
Miranda, J. A., Corn, 79; Wine, 86.
Miranda, J. A. de R., Honey, 101.
Miranda, J. B. de, Cigarettes, 70.
Miranda, Joao E. L. de, Figs, 103.
Miranda, Joaquim Lobo de, Almonds, 91; Beans, 98; Dried figs, 104.
Miranda, José Victorino de, Wine, 110.
Miranda, M. M. de, Cotton, 74.
Miranda, Manuel Patricio de, Olives, 91.
Miranda-Russo, F. A., Tea, 70.
Mirandella, Pedro Aleixo de, Grain, 94.
Mirat & Son, Starch, 88*s*.
Miret, J., Wine, 88*aa*; Olive oil, 88*gg*.
Miret y Segría, J., Walnuts, 88*b*.
Miro, D. Maria, Wax, 72.
Mitchell, J. E., Grindstones, 34.
Mitchell, Wilson, Basins, 154.
Mittler & Co., Malt, 56.
Miura, G., Tea, 128.
Miure y Fernandez, B., Wheat, 88*g*.
Miyagi, C., Garden designing, 129.
Miyazaki, T., Tea, 128.
Mlodzescin Sugar Mill, Sugar, 125.
Moboda Manufacturing Co., Spirits, 59.
Mocinha, M. J., Oil, 119.
Mock, Isidor, Cement floors, 138.
Mockridge, E., & Co., Azumea, 24.
Módenes, J. R., Wines, 88*w*.
Moehonua, W. L., Hawaii, 261.
Moffatt, L., Models, 151.
Mohawk & Hudson Mfg. Co., Pressed hay, 16; Pressed cotton, 24.
Mohn, Peter, White herrings, 61.
Moidnenta da Beira, Viscount of, Wine, 110.
Moita, Antonio F. da Silva, Wines, 111.
Moita, José Francisco, Honey, 101.
Molano, M., Acorns, 88*n*.
Molano, P., Cereals, 88*c*; Honey, 88*o*.
Molina, F., Liquors, 88*u*; Olive oil, 88*ff*.
Molina, I., Wine, 88*v*.
Molina, J., Beans, 79.
Molina, J. C., Wool, 87.
Molina, M., Tow, 88*ii*.
Molina, Mardoqueo, Wine, 86; Cotton, 87.
Molinari Brothers, Bologna sausages, 64.
Molina's Widow & Son, Olives, 88*q*.
Moline Plow Co., Wood beam plows, 25.
Moline Wagon Co., Wagons, 135.
Monchy, M. M. de, Netherlands, 234.
Mondego River, Direction of the Works of, Fish, 99.
Monedero, E., Wheat, 88*h*.
Monedero, J., Wheat, 88*f*; Carrobs, 88*k*; Wine, 88*z*.
Monedero, V., Wheat, 88*i*.
Monforté, A. A., Honey, 88*q*.
Moniz, Antonio B. da F., Grain, 96; Wine, 111.
Monlleó, R., Almonds, 88*b*.
Monner, J., Beans, 88*l*; Hemp, 88*ii*.
Monroe & Hogan, Plow, 46.
Monserrat y Cavallé, J., Carrobs, 88*l*.
Montagut, J., Wine, 88*aa*.
Montagut, J. I., Olive oil, 88*hh*.
Montaña, F. R., Almonds, 88*b*; Carrobs, 88*l*.
Montana Territory, Cereals, 16.
Montaner, A., Olives, 88*g*; Panic grass, 88*h*; Beans, 88*l*.
Montaner y Rincon, J., Wine, 88*aa*.
Montariol, Viscount of, Wine, 115.
Monte, José Manuel do, Wax, etc., 102.
Monte, P. P. del, Vermouth, 88*u*.
Montealagre, Widow & Son of, Wheat, 88*h*.
Montebello, A. de, & Co., Wines, 50.
Montefiore, The Hon. J. L., New South Wales, 180.
Monteiro, Abilio Affonso da Silva, Wine, 111.
Monteiro, Antonio Manuel, Wine, 111.
Monteiro, Francisco Vaz, Beans, 98; Oil, 119.
Monteiro, Joaquim Soares, Wine, 110.
Monteiro, José de Sausa, Grain, 94.
Monteiro, José Justino Teixeira, Wine, 110.
Monteiro, Julio Pereira, Potatoes, 97.
Monteiro, M. F., Vinegar, 107.
Monteiro, P. J., Coffee, 69.
Montemayor, M., Almonds, 88*a*.
Montenegro, A., Wine, 88*y*.
Montenegro, Commander, Coffee, tea, 69.
Montenegro, J. J. P. T. de M. M., Flax, 121.
Montenegro, M. P., Maize, 88*f*.
Montero, R. B., Wine, 88*cc*.
Montes, José Nunes Moraes, Wine, 110.
Monteverde, A., Wine, 88*v*.
Montheuil, F., sen., Wines, 50.
Montiel, E., Wines, 88*x*; Olive oil, 88*ff*.
Montigny, de, & Co., Wines, 50.
Montileo y Mor, J., Mistela, 88*aa*.
Montini, Pasquale, Vermouth, 66.
Montlleo, J., Wines, 88*aa*.
Montoia, Diogo Lopes, Honey, etc., 102.
Montoliu, P. M. de, Hazelnuts, 88*b*; Wine, 88*aa*; Olive oil, 88*gg*.
Montoso, Andre de Brito Monforte, Grain, 96.
Montoya, D. L., Wool, 121.
Montoya, V. L., Peanuts, 88*l*; Wool, 88*jj*.
Moody & Nelson, Shingles, 134.
Mookhin, J., Grasses, 123.
Moon, Mahlon, & Son, Ferns, 151; Pineapple, 152; Vase, 153; Ornamental trees, 154.
Moore, C., New South Wales, 180.
Moore, Samuel H., jr., Fig tree, 154.
Moore & Scattergood, 147.
Moorhead Clay Works, Vases, 153, 154.
Moos, Joseph, Apparatus, 35.
Mora, A. de, Olive oil, 88*ff*.
Mora, C. M. de la, Flour, 88*r*.
Mora, J., Sheepskin, 82; Beans, 131.
Mora, J. M., Wines, 88*z*.
Moraes, Antonio Carlos, Wine, 115.
Moraes, Antonio Fernandes, Wine, 115.
Moraes, Antonio, S. T., Corks, 89.
Moraes, Antonio da Silva, Almonds, 91; Wine, 117; Flax, 120.
Moraes, Domingos Alves, Wine, 115.
Moraes, Joaquim Claudino de, Wine, 110.
Moraes, Joaquim Taibner de, Portugal, 285
Moraes, José Alves de, Wine, 110.
Moraes, José Bazilio de, Wheat, 92; Olive oil, 119.
Moraes, José B. de A., Honey, 101.
Moraes, José Correa Pinto de, Wine, 111.
Moraes & Mouro, Wine, 111.
Moraes, Rodrigo Antonio L. de, Hides, 100.
Moraes, R. M. G. de, Cheese, 72; Wines, 73.
Moral, S., & Bros., Wheat, 88*d*.
Morales, E., Bitters, 86.
Morales, J., Tobacco, 88*m*.
Morales, L., Lentils, 88*i*.
Morales, P., & Co., Brandy, 88*y*.
Morales, T., Olive oil, 88*ff*.
Moran, José A. M., Beans, 98; Oil, 119.
Morand, P., Esparto grass, 88*hh*.
Morandi, Pietro, Wax, 63.
Morao, M. E. d'Almeida, Olives, 90; Wine, 118.
Morehouse, W. Noyes, China, 257.
Moreira, Antonio Ignacio, Brandy, 115.

Moreira, C., Cotton, 74.
Moreira, Dr. N. J., Butterfly, 71.
Moreira, David Martins, Wax, 101.
Moreira, Domingos, jr., Beans, 98.
Moreira, Dr. d'Assis C., Tobacco, 70.
Moreira, J. B., Grain, 94; Flax, 121.
Moreira, Joas Baptista Rates, Flour, 106.
Moreira, Luis José, Beans, 98.
Morcira, N., Silkworms, 75.
Moreiro, Dr. Nicolas Joaquim, Brazil, 263.
Morejon, M. S., Olive oil, 88*gg*.
Morel, A., Belgium, 229.
Morel, H., Belgium, 229.
Moreno, C., Cereals, 88*c*; Peas, 88*i*; Wool, 88*ii*.
Moreno, D., Wine, 88*w*.
Moreno, F., Ox hide, 83.
Moreno, J., Olive oil, 88*ee*.
Moreno, J. M., Preserves, 88*q*.
Moreno, J. S., Oats, 88*c*.
Moreno, José Joaquim, Rice, 106; Wine, 111.
Moreno, M., Figs, 88*q*; Olive oil, 88*hh*.
Moreno, M. O., Cereals, 88*h*.
Moreno, P. C., Olive oil, 88*dd*.
Moreno, R., Walnuts, 88*a*.
Moreno, R. A., Beans, 88*k*.
Moreno, R. S., Wine, 88*y*.
Moreno, P., & Sons, Corks, 90.
Moreno, S., Olive oil, 88*ee*.
Moreno, S. M., Vegetables, 88*m*.
Morera y Jordana, Don José, Spain, 280.
Morera y Polles, A., & Son, Wines, 88*aa*.
Morgado, Francisco X. A., Cheese, 99.
Morgado, J. A., Fruits, 96; Honey, 102.
Morgan, D. S., & Co., Machines, 30.
Morgan, N., Wool, 87.
Mori, R. & K., Soy, 129.
Morikawa, K., Tea, 128.
Morillas, R. F., Wheat, 88*g*.
Moriondo & Gariglio, Chocolate, 66.
Morlius, J., Olive oil, 88*hh*.
Moro, J., Starch, 88*s*.
Moron, F. de P., & Co., Brandy, 88*bb*.
Moron, J. G., Cheese, 88*a*.
Morphy, Don Juan, Spain, 280.
Morris, A., New South Wales, 180.
Morris, E. S., & Co., Agr. products, 88.
Morris, G. C., Plants, 152.
Morris, W., New South Wales, 180.
Morrison Bros., Plow, 25.
Morrison & Fay, Plow, 26.
Morrison, J., Hogshead, 138.
Morrison, James, & Co., Hams, etc., 21.
Morse, Dudley, Fork and jack, 34.
Morse, G. Byron, Plain and fancy cakes, 23.
Mort, T. S., New South Wales, 180.
Morte Certa, Antonio P. C., Wine, 111.
Morton, Geo., & Son, Malt, 44.
Morvira, N. J., Cocoons, 75.
Moscoso, Simao P. Velho, Wine, 115.
Mosdorfer, Balthasar, Sickles, 56.
Moses, D. D., Hops, 44.
Mosher, A. J., Bagholder, 33.
Moshevski, W., Wool, 126.
Moskopf, T., Mustard, 53.
Mosqueira, A. L. M., Tea, 70.
Mosquera, A., Wine, 88*y*.
Mossamedes, Viscount of, Wine, 110.
Mossone, Antonio, Liquors, 65.
Mostardinha, José Marques, Grain, 94.
Mostardini, Adolfo, Liquors, 66.
Motoakira, Sasase, Japan, 259.
Mott & Co., Wine, 41.
Mott, J. L., Vases, 153; Fountains, 154.
Motta, Abel Maria, Peas, 98.
Motta, Anacleto da Fonseca, Wine, 111.
Motta, Luiz Antonio, Wine, 110.
Motta, Ranulfo Antonio, Wine, 111.
Mottet, J., & Co., Oil, 51.
Moujon, Mercedes I., Raisins, 84.
Moulton, Dr. J. T., Netherlands, 234.
Mount, Joseph K., & Co., Hay conveyer, 37.
Moura, Antonio Gomes de, & Co., Wine, 114.
Moura, Augusto, Wine, 115.
Moura, Christiano A. da S., Wine, 111.
Moura, Ferreira de, Potatoes, 69.
Moura, Francisco A. M., Olives, 103.
Moura, Luis Manuel Alves, Wine, 115.
Mourao, Luis Teixeira, Wine, 110.
Mourao, Victorino F. C., Beans, 98.
Mourao, Victorino T. C., Grain, 94.
Mourato, M., Seed, 96; Oil, 119.
Moure, M., Wines, 88*y*.
Mousa, J. C., & Gomes, F., Grain, 94.
Moutinho, J. T., Grain, 94; Beans, 98.
Movas, J., Wool, 87.
Mozas, A.-A. de las, Wheat, 88*g*.
Mudela, Marquis of, Wines, 88*v*.
Mueller, H., & Co., Barley, malt, 136.
Mueller, Quackenboss, & Co., Vases, 153.
Muir, Jas., & Son, Ales, 41.
Muirhead & Gray, Oatmeal, 44.
Mujica, E. S., Blood, 82; Manure, 88.
Mulas, S., Wheat, 88*f*.
Mulder, L., Agricultural newspaper, 58.
Mulet, A., Almonds, 88*a*; Wine, 88*t*.
Muller, A., Cigarettes, 53.
Müller, C., Mustard, 124.
Müller, Gottl., Wines, 53.
Müller, Gustave, Isinglass, 18.
Mullol, B. R., Wines, 88*u*.
Mumelter, Alois, Wines, 55.
Munar, G., Wines, 88*t*.
Munhoz, C., Matte, 71.
Munoz, A., Wines, 88*y*.
Munoz, B., Girth, 88*jj*.
Munoz, Brancisco, Wheat, 78.
Muñoz & Bro., Abacá and cabo negro, 133.
Muñoz, F. R., Wine, 88*y*.
Munoz, J. D., Flax, 88*ii*.
Muñoz, L. F., Wine, 88*t*.
Muñoz, M., Wheat, 88*e*.
Muñoz y Leon, A., Peas, 88*k*.
Muñoz y Mendez, E., Wine, 88*w*.
Munro, A., Wines, 42.
Munro, D. R., Woods, 44.
Munro, Hon. J., Victoria, 182.
Munsel & Dexter, Lifting jack, 34.
Munson Brothers, Mill, 34.
Murcia, Economical Society of, Agave, 88*ii*.
Murcia, Provincial Deputation of, Almonds, 88*a*; Seeds, 88*n*; Spunk, 88*o*; Olives, 88*q*; Flour, 88*r*; Pastes, etc., 88*s*.
Murdock, A. L., Sugar, 22; Cotton, 24; Dairies, 35.
Murdoch, Aug., American mustard, 16.
Murdock, John, & Son, Wheat ricker, 36.
Murias, P., & Co., Tobacco, 88*m*.
Murici, Leao, Ermelindo de, Biscuits, 74.
Muricy, Dr., Pine heart, 68; Spices, 69; Cipo florao, 75.
Muricy & Leao, Woods, 68; Beans, 69; Guano, 75.
Murino, Nicola, Wine, 66.
Muro, F., Peas, 79; Wine, 86.
Muro, P., Preserves, 88*q*.
Murphy & Broom, Aquarium tanks, 19; Garden furniture, 27.
Murphy, C. J., Testing still, 138.
Murphy, R. R., Extractor, 37.
Murree Brewery Co., Bottled ales, 41.
Murta, Ramiro Cesar, Corkwood, 89.
Murteira, Antonio Maria, Grain, 92.
Murteira, Joaquim Antonio, Timber, 89.
Murteira, M. M., Olives, 91; Wool, 121.
Murtfeldt, Miss, Botanical specimens, 39.
Murton, H., Oatmeal, 44.
Murucy, Dr., Rye flour, 72.
Muschert, B. F., Cultivator plow, 25.
Musgrave, Sir A., South Australia, 184.
Musi, Luigi, Liquors, 66.
Muysken, C., Netherlands, 234.
Muzullo, Cav. Luigi, Dried nuts, 63.
Myer, B., Plows, 25.
Myers, Ephraim, Seeds, 18.
Myers & Ervien, Hay forks, etc., 25.
Myers, T. J., & Son, Boiler, 152.
Mylnikoff & Zafroobrin, Tobacco, etc., 124.

N.

N——, N——, Straw, 69; Rice, 73.
Nácar, J., Chocolate, 88*dd*.
Nachtmann, Jacob, Honey, 55.
Nagamasa, Yoshio, Japan, 259.
Naga-oka, Z., Liquors, etc., 129.
Nagasaki-ken, Government of, Cigars, 128; Fishing apparatus, 129.
Nagaya, B., Tea, 128.
Nager y Juan, P. J., Wine, 88*bb*.
Naglee, H. M., Brandy, 23.
Nagura, O., Isinglass, 129.
Nalda, P. G., Wine, 88*x*.
Napheys, Geo. C., & Son, Lard, 19.
Napoles, Miguel T. de S., Wine, 111.
Napoli, Francesco, Preserved tomatoes, 64.
Napoli, Giuseppe, Wine, 66.
Narbuth, Johann, Hemp, 56.
Narvaez, D., Wines, 86.
Nasarre, V., Wheat, 88*e*; Olive oil, 88*ff*.
Nascimento, M. A., Liquors, 106; Wine, 109.
Nascimento, Rev. A. F., Tobacco, 70.
Nash & Bro., Potato planter, 27.
Nathanson, J., Sugar, 125.
National Horse Nail Co., Nails, 39.
National Manufactory of Tobacco, Tobacco, 88*m*.
National Yeast Co., Dry hop yeast cakes, 24.
Natividade, Jose Gonzalvez, Wine, 110.
Natus, T., & Co., Spirits, etc., 126.
Naumann, F., Liqueurs, 54.
Naumann, L., Spices, 53.
Navajas, F. S., Wheat, 88*c*.
Navarro, A. J., Wine, 88*w*.
Navarro, Antonio Jose Antunes, Portugal, 285.
Navarro, Cornelio, Wheat starch, 85.
Navarro, E., Wine, 88*bb*.
Navarro, Jose C. D'A., Portugal, 284.
Navarro, R., Cereals, 88*d*.
Navas, M. G., Brandy, 88*y*.
Naves, A., Tapican, 130; Oil, 132.
Nazar & Co., Wool, 87.
Neaffie & Levy, Engine, 39.
Neble, J. M., Wines, 88*w*.
Needham & Kite, Filter press, 41.
Neges, F. de P., Wine, 88*w*.
Negrao, J. d'A., Seed, 98; Figs, 104.
Negrao, M. N. O., Oil, 119.
Nègre, J., Confectionery, 51.
Negreiros, Bento Antonio, Wine, 111.
Negrete, A. F., Cereals, 88*h*; Seed, 88*n*.
Neidhardt, Dr., Germany, 215.
Neidlinger, Schmidt, & Co., Malt, 136.
Neighbour & Sons, G., Bee hives, 41.
Nellis, A. J., Hay fork, 29.
Nemiloff, A., Hemp, 126
Nennich, Henry, Vinegar, 22.
Nenzioni Brothers, Preserved tomatoes, 64.
Nes, A. P. van, Trees, 158.
Netherlands, Statistics of, 230.
Neto, Manuel Jose Setubal, Fish, 99.
Netto, Felippe Lopes, Brazil, 263.
Netto, Joao Mascarenhas, Corks, 89.
Netz, Christian, Lard, 45.
Neuman & Sons, Vinegar essences, 56.
Neuner, Christof, Leather, 55.
Neves, Adelino, Beans, 98.
Neves, Adelino, & Son, Nuts, 91.
Neves, F., Oil, 119.
Neves, Fortunato Vieira das, Wine, 110.
Neves, Francisco X., Grain, 93; Peas, 98.
Neves, J. Ribeiro, Tea, 70.
Neves, Jose Eloy das Cadaval, Wine, 110.
Neves, Jose J. das, & Bros., Almonds, 91.
Neves, Jose J. dos, & Sons, Figs, 103.
Neves, Jose Marques das, Beans, 98.
Nevins, Wm., Machines, 34.
New Brunswick Adv. Board, Lumber, 134.
New Era Manufacturing Co., Machines, 32.
New Gellivara Co., Fir timber, 59.
New Hampshire State Centennial Board, Woods, 15; Corn, etc., 16; Sugar, 22; Wool, 24; Implements, 32; Books, 38.
New Jersey, State of, Woods, 15; Wheat, 18; Soils, 38.
New London Scythe Co., Scythes, 29.
New Orleans Cotton Exchange, Cotton, 29.
New South Wales, Statistics of, 178.
New York Cotton Gin Co., Hand gin, 32.
New York Desiccating Co., Cocoanut, 20.
New York Hop Extract Co., Hop extract, 20.
New York Manufacturing Co., Plow, cultivator, etc., 25; Wine press, 32.
New York Plow Co., Plows, 27.
New Zealand, Roots, 156.
New Zealand, Statistics of, 174.
Newell, George, Ash, 134.
Newton, J., New South Wales, 180.
Newton, R., Silk, 88; Argentine Republic, 265.
Neyralores, G., Wine, 88*w*.
Niagara Malt House, Malt, 136.
Niagara Steam Pump Works, Pumps, 139.
Niceforo, Nicola, Hazelnuts, 63.
Nichols, Shepard, & Co., Machines, 32.
Nicol Bros., Flax, 45.
Nicoll, Donald, Starch, etc., 40.
Nictheray, S. Joao de, Cigars, 70.
Nieberding, Germany, 215.
Nieto, F. H., Peas, 88*k*.
Nieuwenhuijs, J. H., jr., & Co., Conserves, 57.
Nieves, A., Coffee, 131.
Nievo, Calixto M., Abaca, 133.
Nikisch, Manuel, Corn, 79; Pickled tongues, 85.
Nikitin, A., Preserves, 125.
Nilkens, A., Wines, 53.
Nilsson, Edv., Preserved mackerel, 59.
Ninberg, O., Game, 125.
Nishi-wo, M., Cracknel, 129.
Nistri, Ferdinando, Liquors, 66.
Nisuke, Yoshikawa, Japan, 259.
Nittinger, A., jr., & Son, Machinery, 33.
Noble, R. B., Mackerel, 45.
Nobre, Manuel de Barros, Wine, 110.
Nobrega, J., Coffee, 71.
Nobuakira, Yamataca, Japan, 259.
Noda, D., Tobacco, etc., 128.
Nogueira, A., Coffee, 71.
Nogueira, Dr. P. R., Coffee, 70.
Nogueira, F. B., Flax, 121.
Nogueira, Henrique de La, Barks, 90; Nuts, 91; Wine, 109.
Nogueira, Manuel Martins, Corn, 93.
Nogueira, R., Coffee, 71.
Nogues, R., & Co., Wine, 88*aa*.
Nolcken, Baron Gustav, Russia, 294.
Nolet, J. J. G., Gin, spirits, 58.
Nolin, Hon. Mr., Canada, 204.
Noll, J., Cigars, 53.
Norbotten Agricultural Society, 59.
Norcross, Kent, & Co., Shingles, 15.
Nordrock, Wm., Anchovies, 61.
Norman, V., Sweden, 240.
Norris, J. W., & Co., Aromatic hams, 19.
Northern Ohio Woolen Mills, Shoddies, 24.
Northwood, Howard, Malt, 44.
Norton, James, Potato digger, 29.
Norvell, G. F., Stuffed birds, 44.
Norwalk Lawn Mower Co., Lawn mowers, 30.
Norway, Statistics of, 241.
Norwegian Condensed Milk Co., Milk, 62.
Norwegian Fish Guano Co., Guano, 62.
Norwegian Preserving Co., Meats, 62.
Norwood, C., & Son, Isinglass, 18.
Nostitz, Count John, Grain, 123.
Nova Scotia, Advisory Board of, Cereals 44.
Novaes, Antonio Jose Cabeceiras, Grain, 96.
Novaes, S., Cigarettes, 71.
Novelda, T. E., Brandy, 88*t*.
Novoa, J. C., & Son, Butter, 88*o*.
Novoa, M. R., Wine, 88*y*.
Novossiltseff, J., Grain, 123.
Noziczka, L. C. & W., Malt, 56.
Nunes, A. M., Silk, 122.
Nunes, Antonio, Grain, 93.
Nunes, Antonio Candido, Honey, etc., 102.

Nunes & Co., Corks, 89.
Nunes, Guilhermes F. P., Olives, 91; Grain, 93; Dried fruits, 105.
Nunes, Jose Cabrita, Wine, 109.
Nunes, Jose Jacintho, Wine, 110.
Nunes, Vincente Ferreira, Rice, 106.
Nuñez, L., Wheat, 88*e*; Beans, 88*f*.
Nuñez, Santos, Humming bird, 81.
Nuttall, Enrique, Bitters, 85.
Nye, S. R., Rake, 30.

O.

Oakes, G., New South Wales, 180.
Oberleitner, K. von, 221.
Obratnoff, P., Wheat, 123.
O'Brien Bros., Rustic summer houses, 154.
Ocampo & Acosta, Bark, 77; Hides, 83.
Ocampo, B. de, Flour, 131; Sugar, 132.
Ocampo, Manuel de, Sugar, 132.
Ochoa & Bro., Claret, 88*x*.
Ocon, M., Preserves, 88*q*.
Odena y Pujol, J., Olive oil, 88*hh*.
Odessa Exchange Com., Grain, 123; Peas, 124.
Odnooshefsky, M., & Sons, Furs, 124.
Offley, Cramp, & Forresters, Wine, 109.
Ohio State Centennial Board, Grains, etc., 16.
Ohmer, Augustus J., Mower, 29.
Ojeda, J. M. R., Wheat, 88*g*.
Ojeda, M., Peas, 88*k*.
Ojeda y Gomez, J., Peas, 88*k*; Maize, 88*g*.
Olano, C., Wood, 130.
Olavarrieta, M. S., Wine, 88*y*.
O'Leary, H., Salmon, 45.
Olias, V., Wine, 88*bb*; Olive oil, 88*hh*.
Oliden, T., Oil, 82; Tongue, etc., 85.
Oliva, G., Spirits of wine, 88*aa*.
Oliva, J. M. de, Olive oil, 88*ff*.
Olivares, J. de Sande, Sausages, 88*p*.
Olivares, J. del Castillo, Coffee, 88*m*.
Olivares, J. S., Wine, 88*u*.
Olivares, M. G., Peas, 88*k*.
Oliveira, Antonio Simoes de, Wine, 109.
Oliveira, Augusto José de, Wine, 110.
Oliveira, C. A. M., Corn, 93.
Oliveira, C., & Sons, Wine, 73.
Oliveira & Co., Preserved meats, etc., 103.
Oliveira, Coelho d', Tobacco, 71.
Oliveira, Custodio de, Glue, 101.
Oliveira, D. M., Wool, 122.
Oliveira, Domingos Carneiro de, Wine, 109.
Oliveira, Fortunato Antonio, Beans, 98.
Oliveira, Gaspar José, Nets, 99.
Oliveira, Ignacio de, Glue, 72.
Oliveira, J. D., Oil, 119.
Oliveira, José Bernardo de, Brandy, 109.
Oliveira, José Miguel de, Cheese, etc., 100.
Oliveira, M. J. de S., Oil, 119.
Oliveira, Manuel Rodrigues, Grain, 96.
Oliveira, P. M. de, Wood for dyeing, 63; Tapuru, 75.
Oliveira, R. de, Liquors, 73.
Oliveira, Rafael Rodrigues de, Wine, 116.
Oliveira, Soares, Eduardo, Wine, 109.
Oliveira Soares, M. E. de, Acorns, 90; Fruit, 98; Cheese, 100; Wool, 121.
Oliveira, Verissimo Ferreira A. de, Olives, 90; Grain, 96; Wine, 117.
Olivella, C., Wines, 88*u*.
Olivencia Bros., Wine, 88*z*.
Oliver Bros., Wines, 88*u*.
Oliver, D., Esparto grass, 88*ii*.
Oliver, D. L., Cereals, 88*e*; Wines, 88*x*.
Oliver, Don Joaquin, Spain, 280.
Oliver, John, Oak, 134.
Oliver y Coll, F., Wine, 88*u*; Oil, 88*dd*.
Olivera, Bernardo, Dried figs, 84.
Olivera, Eduardo, Argentine Rep., 265.
Oliveres, M., Wheat, 88*e*; Beans, 88*f*; Olive oil, 88*ff*.
Olivero, José V. R. de, Brandy, wine, 110.
Olives, B. J. de, Honey, 88*o*.
Ollendorf, Ernesto, Argentine Rep., 265.
Ollér, P., Vegetables, 88*l*; Maize, 88*h*.
Olmedo, J., Vinegar, 88*z*.
Olmo, S. del, Brandy, 88*z*.
Olmstel, John W., Ice cream freezer, 35.
Omaña, Corporation of, Wheat, 88*e*; Beans, 88*f*; Flax, 88*ii*.
Omlin, J., Wine, 88*bb*.
Onchica, Andrés, Sugar, 132.
O'Neill, Wm. C., & Co., Barrels, 37.
Onis, F., Cereals, 88*f*; Vegetables, 88*k*; Wines, 88*z*.
Onis, F. de, Fruit syrup, 88*g*; Seed, 88*n*; Wool, 88*jj*.
Ontario Advisory Board, Cereals, 44.
Ookhin Brothers, Wheat, 123.
Oostra, G. Wildervank, Liquor, elixir, 58.
Ootkin, B., Cakes, 126.
Oporto, Agricultural Society of, Woods, 89; Wines, 114.
Oppmann, J., Wines, 53.
Orange Free State, Statistics of, 254.
Orb, J. Auguste de, Corkwood, 89.
Orb & Weiss, Wines, 54.
Orchard City Agri. Works, Plows, rakes, 26.
Orduña, C., Wines, 88*y*.
Orduña, E., Resins, 130; Oil, 132.
Ordunna, S. N., Beans, 88*n*.
Orebro Agricultural Society, Cereals, 59.
Oregon, State of, Woods, 15; Grasses, 16; Glue, cider, etc., 19; Wool, woolen fabrics, 24.
Orejuela, F. de, Olive oil, 88*gg*.
Orejuela, J. de, Peas, 88*k*; Cereals, 88*g*.
Orihuela, P., Olives, 88*q*.
Orloff, N., Wool, 126.
Orloff, Pierre, Russia, 294.
Ornelas, Plurtaco, Mexico, 274.
Ornellas, A. de Funchal, Wine, 110.
Ornellas & Linder, Fish, 99.
Ornellas & Lisher, Preserved fruits, etc., 103.
Ornellas & Lister, Olives, 96.
Ororio, Manuel de A. F., Corkwood, 89.
Orovio, M. de, Olive oil, 88*gg*.
Orsi, Raphael, Sausages, salted meats, 64.
Ortá, M., Olive oil, 88*ff*.
Orta, P. de, Maize, 88*e*.
Ortál, I., Olive oil, 88*gg*.
Ortega, D., Beans, 88*k*.
Ortega, Maria Luisa, Grain, 93.
Ortega, V., Liquors, 88*bb*.
Ortiz, E., Cereals, 88*c*; Wine, 88*bb*.
Ortiz, I., Cigarettes, 88*m*.
Ortiz, J., Saffron, 88*m*.
Ortiz, R. M., Wheat, 88*h*.
Ortiz, T., & Sons, Chocolate, 88*dd*.
Ortuno y Maestre, J. F., Wine, 88*t*.
Osaka, Municipality of, Tobacco, 128.
Osborne, D. M., & Co., Mower, 28.
Osborne Manufacturing Co., Cages, 37.
Osborne, Wm., Malt, 44.
O'Shanassy, Sir J., Victoria, 182.
Osmeña, Rita, & Co., Sugar, 131.
Osorio, M. de E. F., Oil, 119.
Ostroff Sugar Manufacturing Co., Sugar, 125.
Ostrom Bros., Bark, 123.
Oswego Milling Co., Flour, 22.
Otal, J. M., Peas, 88*f*; Esparto grass, 88*ii*.
Otal, J. M., Cereals, 88*e*; Wool, 88*jj*.
Otard, Dupuy, & Co., Brandies, 50.
Otero, F., Sardines, 88*o*.
Otero, José, Honey, wax, 84.
Otero, M. G., Rice, 130.
Otis Bros., Elevator, 139.
Otis Brothers & Co., Mower, 30.
Otori, M., Tea, 128.
Ottaviani Brothers, Wine, 65.
Otto, J. M., Beer-cooler, 138.
Oudermeulen, C. T. van der, Netherlands, 234.
Outcalt, John, Hominy, etc., 21.
Outeiro Fundao, Viscount of, Corkwood, 90; Wine, 109.
Outerbridge, A. A., British Guiana, 191.
Outry, Mr., France, 209.
Ovejero, Sugar, 85.

Overbeck, P., Beer, 54.
Oviedo, Board of Agriculture, etc. of, Nuts, 88*b*; Cereals, 88*f*; Vegetables, 88*h*; Cheese, 88*o*; Ham, 88*q*; Cider, 88*z*.
Owen, Hon. L. C., Canada, 204.
Owen, Judge, Barrel-heads, 35.
Ozaki, I., Tea, 128.
Ozene, M. M., France, 209.
Ozorio, Alvaro de Azevedo, Beans, 98.
Ozorio, Antonio Perfeito Pereira, Wine, 109.
Ozorio, Jose Augusto, Wine, 109.
Ozorio, Manuel de A. F., Beans, 98.

P.

Pacheco, R. G., Barley, 88*d*; Beans, 88*f*.
Pagni, Faustino, & Co., Biscuits, 66.
Pajares de Oteros, Corporation of, Cereals, 88*e*; Peas, 88*j*; Wine, 88*x*.
Palá, J., Chocolate, 88*cc*.
Palacin, D., Wheat, 88*f*.
Palatin y M., Maize, 88*g*.
Palau, J. de, Wines, 88*u*.
Palazzo, Duke del, Paste for soup, 64.
Palcois, Lino, Argentine Republic, 265.
Palin, T., Malt, 136.
Pallares, Count of, Wheat, 88*f*.
Pallas, J., Wheat, 88*i*.
Palma, A. J. da, Embira, 75.
Palma del Rio, Corporation of, Walnuts, 88*a*; Honey, 88*o*.
Palmeiro, Xavier Rosado, Grain, 95.
Palmer, B., New South Wales, 180.
Palmer Baking Powder Co., 24.
Palmieri, Benedetto, Wine, 66.
Palomar, N., Flour, 88*s*.
Palomares, V. L., Vegetables, 88*l*.
Palomino, T., Wine, 88*z*.
Pamies y Orteneda, J., Olive oil, 88*gg*.
Pampagna, Provincial Board of, Seed, 131.
Pamperio, Antonio di S. M., Wheat, flour, etc., 106.
Pamperio, R. de S., Cereals, 93; Flour, 106.
Panda, Corporation of, Fibres, 133.
Panero y Martinez, Juan, Chocolate, 88*dd*.
Panitz, J. C., Tobacco, 70.
Pantion, M. F., Maize, 88*g*.
Papanca, M. A. M., Oil, 118.
Papotti, Cantalamessa N., Italy, 249.
Paquot, R., Belgium, 229.
Para, Province of, Guarana, 74; Jute, 75.
Paradela, D., Cereals, 88*f*; Linseed, 88*n*.
Paradinas, A., Cereals, 88*f*.
Paradinas, G., Barley, 88*c*.
Paradinas, J., Wheat, 88*c*.
Parahyba, Province of, Cotton, 74.
Paraiso, D. V., Tobacco, 70.
Páramo del Sil, Corporation of, Maize, 88*e*; Flax, 88*ii*.
Parana and other Provinces, Cereals, 69; Isinglass, furs, hides, etc., 72; Feculas, 73; Cotton, 74; Plows, wool, 75.
Parana, Commission of, Woods, 77; Corn, 79; Cocoons, 87.
Parana, Commission of, Sponges, etc., 81.
Parana, D. V., Tobacco, 71.
Paranápanema, Director of, Butter, 72.
Pardee, Chas. W., Barley, malt, 136.
Pardo, J., Orange wine, 88*bb*.
Pardo, R. & P., Flour, 88*s*.
Paredes, C., Beans, 88*i*; Wine, 88*u*.
Parent Bros., Sweetmeats, 88*p*.
Parfonry & Lemaire, Marble, 48.
Parilla, J. de P., Wine, 88*v*.
Parisian Flower Co., Bouquets, 151.
Park, H. & H., Fork, hoe, etc., 25.
Parkin, W. W., China, 257.
Parkyn, Jas., Flour, 45.
Parlato, Luigi, Almonds, 63.
Parmentier, E., Belgium, 229.
Parnell, Montague, Wines, 42.
Parochial Curate, Textiles, 133.
Parody, Don Francisco, Spain, 280.
Parrales, V., Pepper, 88*m*.
Parras, E., Esparto grass, 88*hh*.
Parsons, R. B., & Co., Plants, 154.
Parsons, S. B., & Sons, Plants, 151, 154.
Pasali, Gaetano, Fermo, & Cottignano, Liquors, 65.
Pasaran, I., Wheat, 88*k*.
Pascoal, Otero, Beer, 110.
Pascual, E., Peas, 88*k*; Olive oil, 88*ff*.
Pascual, E. A., Wool, 121.
Pascual, M., Wines, 88*t*.
Pascual, Widow & Sons of, Wine, 88*y*.
Pascual y Caballero, P., Wine, 88*x*.
Paseiro, B., Flax, 88*ii*.
Pasig, A., Rice, 131.
Paskevitch, F., Wine, 125.
Passel, Theodore, Wax, 84.
Passier, A., Wines, 50.
Passos, Jose Francisco R., Dried figs, 104.
Patagones, Justice of the Peace of, Wine, 82; Wool, 87.
Patalano, Orazio, Wine, 66.
Paterno, C. di B. G., Wine, 65.
Patiño, J. M., Wine and oil, 88*u*; Wool, 88*jj*.
Patrons' Manfg. Association, Mower, 31.
Patterson, Wm., Road scraper, 36.
Paula Bulnes, F. de, Peas, 88*j*.
Paulino, C. P., Prunes, 88*q*; Olive oil, 88*gg*; Silk, 88*jj*.
Paulino, D. P., Wheat, 88*g*; Olive oil, 88*gg*.
Paulino, F. B., Almonds, 88*b*.
Paulo Affonso, District of, Cajunut oil, 74.
Paulo Cordeiro, J., Snuff, 71.
Paulo Jorge, Wines, 114.
Pauwels, F., Belgium, 229.
Pavao, A. A. G., Wine, 111.
Pavin de la Forge, L. & E., Lime, 48.
Pavon, P., Olive oil, 88*ee*.
Paya, C. P., Wines, 88*t*.
Payas, C. P., Olive oil, 88*dd*.
Peabody, Geo. H., Rice huller, etc., 34.
Peacock, C. J. P., South Australia, 184.
Pearson, J. R., & Co., Tobacco, 16.
Pecanha, Jose Pereira de Castro, Wine, 112.
Peck Brothers, Bone dust, 36.
Peck & Skilton, Rustic goods, 154.
Pedraja, B. G., Wine, 88*s*.
Pedroso, Henrique Caldeira, Olives, etc., 103.
Pedroza, Maria Jose Lopes, Seed, 96; Wine, 117; Flax, 121.
Peele, Hubbell, & Co., Abaca, 133.
Peez, E., Wines, 53.
Peinado y Lasa, T., Brandy, 88*r*.
Peira y Mach, A., Nuts, 88*b*; Wine, 88*z*.
Peireira, Henrique Augusto, Rice, 93.
Peisen, J. J., Wheat, 88*i*.
Peixoto, Antonio Jose da Cunha, Wine, 108.
Peixoto, Jose N. de S., Acorns, 91; Seed, 97; Oil, 118.
Peixto, Augusto Gavia, Olives, 104.
Pellicer, F., Almonds, 88*b*; Wine, 88*aa*; Figs, 88*g*.
Pellicer, J., Olive oil, 88*hh*.
Pellet, A. P., Silk, 51.
Pelletier, Ernest, Russia, 294.
Peltier & Paillard, Sardines, 49.
Peluffo, Angel, Barley, 78; Silk, 88.
Peluffo, Vicente, & Co., Seeds, 77.
Peña, J. E., Cheese, 88*a*.
Peña, J. G. de la, Wheat, 88*f*; Oil, 88*gg*.
Peña y Mach, Olive oil, 88*hh*.
Penafiel, Flour, 106.
Peñaflor, Ines, Abaca, 133.
Peñalosa, A., Cocoa, 131.
Peñaloso, A. S., Seed, 131.
Peñalver, J. D., Seed, 88*n*.
Pendock Brothers, Cider, 41.
Penedo, Francisco A., Grain, 93; Cheese, 99.
Penillos, Garcia, & Co., Wine, 88*w*, 88*z*.
Penitentiary, Rio de Janeiro, Showcases, 68.
Pennock Bros., Plants, 151; Ferneries, 153.
Pennock Mfg. Co., Sheller, hay fork, 29.
Pennsylvania Agri. Works, Plows, etc., 26.
Penny, Hon. E. G., Canada, 204.

Penzin, J., Wheat, 123.
Peple, A., Baskets, 151.
Peppler, Thomas, Plow, cultivator, 25.
Pera, F. M., Grain, 93; Wool, 121.
Peracchi, Enrico, Tomato sauce, 64.
Perard, V., Sheep-shearer, 52.
Peraza, A., Wine, 88*v*.
Perdigao, Plants, 69; Oils, 74.
Peredieu & Bradley, Wool, 87.
Pereira, A. I., Brandy, 118.
Pereira, Adriano Rodriques, Wines, 114.
Pereira, Antonio d'Almeida, Wine, 112.
Pereira, Antonio Rodriques, Wine, etc., 114.
Pereira & Braga, Cigars, 70.
Pereira, Candido Manuel, Wine, 108.
Pereira de Mello, Antonio Leite, Wines, 114.
Pereira, E., Laranginha, 74.
Pereira, Eduardo Augusto, Wines, 115.
Pereira, Francisco José, Cork, 90.
Pereira, Henrique Augusto, Wheat flour, 106.
Pereira, J., Wool, 121.
Pereira, J. F., Wool, 121.
Pereira, J. I., Oil, 118.
Pereira, J. J., Farina, 73.
Pereira, J. S. M., Oil, 119.
Pereira, Jeronymo, Honey, 101.
Pereira, Joao M., Honey, etc., 103.
Pereira, Joaquim J., Wines, 114.
Pereira, Joaquim J. P., Wines, 114.
Pereira, José Agostinho Mancio, Grain, 95.
Pereira, José Francisco, Cheese, 99.
Pereira, José Geraldo de Sa, Beans, 97.
Pereira, Manuel Augusta, Wine, 108.
Pereira, P. M., Nuts, 90; Grapes, 104.
Pereira, Widow Theotonio, & Sons, Wine, 110.
Perera & Sons, Wine, 88*bb*.
Peres, Joaquim Manuel de Mattos, Acorns, 91; Grain, 93.
Peres, Roure, & Co., Corkwood, 89.
Pereyra, Leonardo, Argentine Republic, 265.
Perez, A. A., Flour, 88*r*.
Perez, Albert, & Co., Almonds, 88*a*.
Perez, Augustin, Fibres, 133.
Perez, B., Hams, 88*r*.
Perez, D., Wheat, 83*f*.
Perez, D. E., Brandy, 88*v*.
Perez, E., Wool, 87.
Perez, F., Cultivator, 88*jj*.
Perez, F. G., Peas, 83*i*.
Perez, J., Barley, 88*g*.
Perez, J. V., Cereals, 88*c*.
Perez L., Wheat, 88*f*; Vegetables, 88*l*; Wool, 88*jj*.
Perez, M., Wine, 88*cc*.
Perez, M. V., Wheat, 88*c*; Peas, 88*i*.
Perez, Roure, & Co., Honey, etc., 101.
Perez, V. A., Wax, 88*p*.
Perez Verdú Bros., Vinegar, etc., 88*t*.
Perez y Romero, F. G., Cereals, 88*d*.
Perez y Serrano, M., Peas, 88*k*.
Perfecto, Teodora, Abaca, 133.
Perine, M., & Sons, Flower pots, 153.
Perkins, Stern, & Co., Wines, brandies, 23.
Perko, Francis, Wine, 56.
Perley & Patton, Laths, 134.
Pernambuco, Province of, Manioc, 73; Cotton, 74; Vegetable fibres, 75.
Perneta, Stag horns, 72.
Perneta, F. D., Cigarettes, 70.
Pernia, N., Wine, 88*cc*.
Pernollet, J., Sieves, 52.
Perot's, F., & Sons, Barley, malt, 136.
Perrault, J., Canada, 204.
Perrier, J., & Co., Wines, 50.
Perry, F. H., Canned fruits, 21.
Perry, John G., Mowers, 28.
Perry, Stuart, Hay-tedder, 30.
Peru, Statistics of, 268.
Pessoa, Antonio José das Reis, Grain, 93.
Peter, W. S., Merino wool, 42.
Petroff Bros., Tobacco, 124.
Petroff, J., Cranberry juice, 125.
Pessoa, Luis M. da C., Olives, 90; Honey, 101.
Petroff, W., Spirits, etc., 126.
Petrooski, M., Wheat, 124.
Petrooski Rural Academy, Grain, 123.
Petterson, C. E., Scythes, 60.
Petterson, Otto, Punch, 59.
Peyron, K., Sweden, 240.
Pfannenstiel, C., Beer, 137.
Pfeiffer, H., Hazelnuts, 88*b*.
Pfeiffer, Pedro, Potatoes, 80.
Phelps, J. J., New South Wales, 180.
Philip Best Brewing Co., Beer, 137.
Philippe & Co., Food, sardines, 49.
Philippine Islands, Ferns, 160.
Philitis, S., Tobacco, etc., 124.
Phillipe, A., Medicinal plant, 69.
Phillippi, Armando, sr., Chili, 267.
Phillips, J. B., Horse training device, 38.
Phillips, J., & Co., Drain pipes, 41.
Phœnix Stone Mfg. Co., Stone, 153.
Phosphorite Co., Lime, 122.
Picao, Amaro José de Bastos, Grain, 93.
Picazo, P. B., Wine, 88*s*.
Pickering, Jonathan, Must, 139.
Pickering, Thomas R., Tobacco, 17.
Pico, J. M., Wine, 88*v*.
Picó, M. de, Vegetables, 88*i*.
Piedrola, R., Olive oil, 88*ee*.
Pierce, M. P., Native wood, 15.
Pierce, Mrs. M. R., Stands, 153.
Pierce, S. S., & Co., Champagne cider, 23.
Pierpont, C., & Co., Fodder cutter, 34.
Pierpont, Wm., Machines, 32.
Pies, F. S., Chocolate, 88*dd*.
Pieza, H., Wine, 88*bb*.
Pilao e Luxes, A. d'O., Nets, 99.
Pillado, E. M., Cereals, 88*f*; Beans, 88*j*.
Pillier, N., Wheat, 80; Flour, 85.
Pilling, Geo. P., Instruments, 35.
Pillsbury, Chas. A., & Co., Flour, 21.
Pimenta, Anna A. de S., Dried fruits, 103.
Pimenta, Isidora, Cheese, etc., 100.
Pimenta, Isidoro E. O. C. Marques, Peas and beans, 97; Wool, 121.
Pimenta, Jacintho Francisco, Wine, 111.
Pimenta, Jose Maria Dantas, Nuts, 91; Dried figs, 105; Wine, 108.
Pimenta, M., Yagnarembo, 73.
Pimentel, Antonio Augusto de Moraes, Rye, wheat, 93; Seed, 98; Honey, etc., 102; Wool, 121.
Pimentel, C. A. de, Wine, 88*cc*.
Pimentel, José Reis, Seed, 96; Cheese, 100; Flax, 121.
Pimentel, P. A., Vinegar, 88*bb*.
Piña, J. B., Almonds, 88*a*; Mistela, 83*f*; Olive oil, 88*dd*.
Pina, M. M. de, Oil, 118.
Piñango, N., Saffron, 88*m*; Wine, 88*bb*.
Piñar, E., & Bros., Olive oil, 88*gg*.
Pinardi, Pietro, Mustard, preserves, 64.
Pineda, E. de, Cereals, 88*f*.
Pineda, J., Olive oil, 88*ee*.
Pineda, N. J., Olive oil, 88*ff*.
Piñeiro, R. S., Cereals, 88*f*.
Pinel, C. P., Treatise, 157.
Piñero, Aurelio, Wax, 84.
Pinet, Castillon, & Co., Cognac, 50.
Pingcercós y Anglés, F., Almonds, 88*b*.
Pinheiro, Antonio Joaquim, Wine, 114.
Pinheiro, Candido A., Olives, etc., 103.
Pinheiro, Custodio José Valverde, Wine, 111.
Pinheiro, Francisco Rodrigues, Corkwood, 90.
Pinheiro, J. E., Tobacco, 70.
Pinheiro, Joaquim Garcia, Red wine, 108; Vinegar, 114.
Pinheiro, José Azambujo, Wine, 108.
Pinheiro, José de Maura, Grain, 93.
Pinheiro, José de Sousa Idanha a, Honey, 101.
Pinheiro, José Henrique, Grain, 93.
Pinheiro, T., Sugar, 73; Laranginha, 74.
Pinho, F. do, Chocolate, 74.
Pinho, L. F. do, Chocolate, 69.
Pino y Gomez, J. del, Brandy, 88*y*.
Pinós, J. M., Wheat, 88*f*; Olive oil, 88*ff*.

Pinson, Ivory, 48.
Pinto, A. L. de G., Wine, 118.
Pinto, A. T. da C., Oil, 119.
Pinto, Antonio Joaquim, Red wine, 105.
Pinto, Antonio M. de, Seed, 97; Wool, 121.
Pinto, Antonio R., Cereals, 93; Beans, 97; Flour, 106; Wine, 118.
Pinto, Antonio Peixoto, Wine, 114.
Pinto, Augusto Leal de Goueva, Beans, 97.
Pinto, Basto A. F., Honey, etc., 102.
Pinto & Bro., Tobacco, 71.
Pinto, Clemencia, Acorns, 90; Peas, 98; Honey, brandy, 102.
Pinto, Coelho, Wines, 114.
Pinto da Fonseca, Francisco R., Grain, 95.
Pinto, Francisco X. de M., Raisins, 105.
Pinto, J. C., Macaroni, 118.
Pinto, Joao A. A. da Fé, Wine, 110.
Pinto, Joao d'Azevedo, Corn, 93.
Pinto, Joao di Arevedo, Flour, 106.
Pinto, Joaquim P. da C., Cheese, etc., 100.
Pinto, José Clemente, Grain, 92.
Pinto, José, P., Corn, 93.
Pinto, Luis Marques, Grain, 93; Beans, 97; Preserved meats, 100.
Pinto, Manuel Feireira, Wine, 114.
Pinto, Maria R. R. B., Wines, 114.
Pinto, O., Aguardente, 73.
Pinzon, L. H., Liquors, 88*w*.
Pinzon, R. I., Wines, 88*x*.
Piombino, Prince of, Wine, 66.
Pioneer Iron Works, Road roller, 36.
Pirapitinga, Baron of, Starch, tapioca, 73.
Piratininga, L. Tebirica, Plants, 69.
Pires, Antonio Joaquim, Sweet fruits, 105.
Pires, Julio José, Portugal, 284.
Pirrone, Antonino, Biscuit, 66.
Piteira, F. J. F., Pork, 104; Wool, 121.
Pitts, D. H., Fishing reel, 45.
Pitts, H. A., Sons, Mfg. Co., Machines, 32.
Pizey, S. V., South Australia, 184.
Pizzona, Miguel, Wines, 85.
Plá, F., Alcohol and cordial, 88*aa*.
Plá, José, & Co., Brandy, 85.
Plá y Vila, P., Brandy, 88*u*.
Plagniol, J. de, Oil, 51.
Plana, A., & Bro., Wheat, 88*h*.
Plana & Co., Chocolate, 88*dd*.
Plassa y Alfonso, J., Mistela, 88*aa*.
Platen, Count Carl von, Cereals, 59.
Platin, C. G., & Co., Punch, 59.
Plaza, J. A., Olives, 88*q*.
Plaza y Garrejo, F., Wheat, 88*e*.
Pleasant Valley Wine Co., Wines, 22.
Pleshanoff, J., Wheat, 124.
Pletneff, Alexandre, Russia, 294.
Pley y Bondigue, Maize, 88*d*.
Plighin, P., Wheat, 123.
Plunkett, John, & Co., Malt, 40.
Poblete, F., Romerrillo, 77.
Poblete, Tiburcio, Ostrich skin, 81.
Podobedoff, Michel, Russia, 294.
Poel, Cz. P. van der, Wheat, barley, oats, 57.
Poeschel, M., & Sherer, Hermann, Wines, 22.
Poey, J., Oranges, 88*c*; Vegetables, 88*l*; Coffee, 88*m*; Sugar, 88*o*; Honey, 88*p*.
Poey, J., Plants, 160.
Poglione, Widow, & Sons, Wines, 65.
Pohl, C., Currants, 158.
Poiares, Antonio José da Silva, Pitch, 90; Grain, 93; Beans, 97; Wine, 114.
Pointe aux Peaux Wine Co., Wines, 23.
Poisson, J. T., Seed, 77; Viper's skin, 81.
Poitevin, C., & Co., Wines, 50.
Poke, Charles, Malt, 136.
Pokorny, Franz, Wine, 56.
Pokrovsky Sisterhood, Cocoons, etc., 127.
Polá, Juan, Potatoes, etc., 80.
Poligny Society of Agriculture, Wines, 50.
Pollen, L. P. M., Liquors, 58.
Pollock, James, Flour, 21.
Polo, B., Wine, 88*w*.
Pombo, P., Wheat, 88*f*; Flour, 88*r*.
Ponce de Leon, Juan, Cereals, 88*d*.
Ponce, I., Seed, 77.
Ponferrada, Corporation of, Walnuts, 88*a*; Cereals, 88*e*; Vegetables, 88*j*; Wine, 88*w*.
Pons, A., Wines, 88*u*.
Pons, A. C. de, Olive oil, 88*dd*.
Ponseti y Gomila, J., Paste, 88*s*.
Pontes, F. F. T. de, Wine, 118.
Pont-Ollion, N., Cements, 48.
Pontzen, E. von, 221.
Ponyet, M., Cocoons, 88.
Porcar, T. M., Olive oil, 88*dd*.
Porcari, Baron Angiolo, Grain products, 63.
Porqueras, J., Wine, 88*aa*.
Porri, P., Plowshare, 67.
Porta M., Alcohol, 88*cc*.
Portella, F. F., Vanilla, 69; Hair, 75.
Portella, José Ferreira, Wine, 114.
Portella, jr., Wine, 114.
Portella, J. T. M., Coffee, 69.
Porter & Mowbray, Flour, 22.
Portillo, S. R., Wax candles, 88*b*.
Portland Packing Co., Canned fruits, 19.
Pórtoles, M., Anise-seed cordial, 88*cc*.
Portugal, P. P. d'Azevedo, Matte, 70.
Portugal, Statistics of, 281.
Posadas, G., Fibre ropes, 87.
Posar, J., Rice, 131.
Posse, Count F., Sweden, 240.
Possidonio, A., Oil, 118.
Possiponti, A., Straw, 15.
Post, C. C., Maple sugar, 22; Tools, 33.
Post, C. G. van der, Cigars, 57.
Potan y Mico, A., Wine, 88*aa*.
Potts, Wm. W., Portable fence, 36.
Poulson, H., & Co., Arrack punch, 62.
Pouyet, Miguel, Garden seeds, 80; Honey, 84.
Poveda, P., Cereals, 88*g*; Peas, 88*k*.
Poves y Quintano, G. de, Wine, 88*d*.
Powell, Edward, Wines, 42.
Powell, J., New South Wales, 180.
Poyato, M., Peas, 88*j*.
Pozo Alcon, Corporation of, Seed, 88*n*.
Pozoblanco, L. E., Cheese, 88*a*.
Prado, M. A. de, Walnuts, 88*a*; Cereals, 88*e*; Vegetables, 88*j*; Flour, 88*r*; Chocolate, 88*cc*.
Prados, Viscount of, Coffee, 71.
Prascencio, M., Wine, 88*cc*.
Prast, Q. A., Brandy, 88*t*.
Pratt, C., Saucers, 157.
Pratt, James, Sauce, 40.
Pratt, José, Lupine, 88*t*.
Pré, J. M., Wine, 88*v*.
Prego, Ezequiel de Paula Sa, Wines, 108.
Prego, Joaquim Romar Mendes, Wine, 114.
Prentzel, Saml. F., Oatmeal, oatina, 21.
Pressey, G. W., Stump puller, 36.
Preusel & Bachmann, Wines, 53.
Price, S. S., Plants, 152.
Priego, R. M., Wheat, 88*d*.
Priest, W., Wool, 43.
Prieto, B., Wheat, 88*f*.
Prieto, E., Walnuts, 88*b*; Vegetables, 88*l*.
Prieto, F., Coffee, 131.
Prieto, S., Wheat, 88*d*; Seed, 88*n*; Vegetables, 88*j*; Olive oil, 88*ee*.
Prime, Viscount of Visen, Wine, 116.
Prince Edwards Island Advisory Board, Cereals, 44.
Principe, District of, Resins, 68; Wax, 72.
Principe, Don Julian A., Spain, 280.
Prins, F., Hazelnuts, 88*b*.
Pripodi, Silvino, Coffee, 71.
Pritchard, A., Raw cotton, 24.
Pritz, A., & Sons, Grain drill, 31.
Proenca, F. T. d'A., Corkwood, 90; Oil, 118.
Proenca, V., Figs, 104.
Prohens, D., Cordial, 88*t*.
Promis, J., Wines, 50.
Protective Fire Apparatus Co., 39.
Prout, H. N, Adjustable hoeing machine, 29.
Provincial Deputation, Oats, 88*d*; Honey, 88*p*; Barilla, 88*jj*.
Provost, Stephen H., Tomato sauce, etc., 20.
Pryecisyewsky, C., Pulverized bones, 127.

Pschorr Brewery, 54.
Pskoff Statistical Committee, Flax, 126.
Puebla de Brollon, Corporation of, Beans, 88*k*.
Puente, Salvador, & Alejandro L., Wheat, 88*g*.
Puentes y Roldan, F., Barley, 88*d*.
Puerta, Zayas A. de la, Olive oil, 88*gg*.
Puga, Sons of, Liquors, 88*cc*.
Puig, Andrés, Sugar, 132.
Puig, J., Wheat, 88*g*; Peas, 88*k*; Oil, 88*gg*.
Puig, J. B., Wines, 88*u*.
Puig, José, Sugar, 132.
Puig y Llagostera, Olives, 88*p*; Vinegar, 88*u*; Olive oil, 88*dd*.
Puigvert, Corporation of, Barley, 88*e*; Olive oil, 83*ff*.
Pujol, Eliza, Isypoyu, 77.
Pujol, J. M., Wine, 88*bb*.
Pujol, J. O., Wine, 88*ta*.
Pujol y Salvat, F., Wine, 88*aa*.
Pulgar, J. P. del, Esparto grass, 88*ii*.
Pulfés, A. M., & Son, Chick peas, 88*l*.
Pullido, Manuel Marvao, Wheat flour, 106.
Pulling, A. C., Malt, 136.
Pumphrey, W. F., Machines, 33.
Purdy & Green, Lime, 46.
Purdy, Hiram, Odorating apparatus, 34.
Putnam, S. S., & Co., Nails, 38.
Puzini Bros., Preserves, 88*p*.
Pygnatelli, J. da C., Flax, 120; Beans, 97; Wine, etc., 116.
Pykhoff Brothers, Chiccory, 124.

Q.

Quebec Advisory Board, Lumber, 134.
Quebranguelo, Dist. of, Resins, 68; Beans, 69.
Quebranguelo, Municipality of, Cotton, 74.
Queensland, Statistics of, 194.
Queimado, Isidoro Maria, Honey, etc., 102.
Queiroz, J. C. L., Flax, 120.
Queiroz, José de Sequeira Pinto, Woods, 89; Seed, 96; Liquors, 93; Flax, 126.
Queiroz, Sebastiao M. B., Corn, 93.
Queiróz & Sons, Tobacco, 70.
Quelet, Enrique, Wheat flour, 85.
Quemada, J. de Dios, & Sons, Flour, 88*r*.
Quereus & Genana, Oak, 134.
Quesada, C. G. de, Peas, 88*j*.
Quesada y Salazar, P. de, Peas, 88*j*.
Quevedo, J. C., Beans, 88*i*; Cochineal, 88*n*.
Quigley, P., Contractor, 9.
Quintana, J. de, Wine, 88*v*.
Quintana y Ruiz, Cereals, 88*d*.
Quintanilha, Francisco, Wine, 117.
Quintanilla, A., Wool, 88*jj*.
Quintanilla, A. T., Olive oil, 88*gg*.
Quintero, J. G., Vinegar, 88*w*.
Quiroga, A., Wine, 86.
Quiroga, V., Chestnuts, 88*a*.
Quiros, Widow, & Son, Hides, 88*o*.
Quitman, A., Wines, 53.

R.

Rabache, A., Plow, 51.
Rabio, J. M., Wine, 88*z*.
Racine Hardware Co., Vases, etc., 153.
Rademakers, A. C., Gin, 58.
Radtke, G. A., Germany, 215.
Raigon, A., Wine, 88*w*.
Rajevski, N., Wines, 125.
Ramalho, Antonio José, White wine, 108.
Ramalho, Antonio Pinheiro, Wine, 112.
Ramalho, Domingos Antonio, Wine, 116.
Ramalho, Esteves Goncalves, Wine, 108.
Ramalho, José M., Corkwood, 89; Wine, 106.
Ramao, Joanna Balbina, Fish, 99.
Ramires, Balthazar Peres, Wine, 112.
Ramires, José Peres S., Linseed, 97.
Ramires, M. P., Oil 119.
Ramirez & Co., Grain, 78; Raisins, 84.
Ramirez, Antonio, Seeds, 88*n*.
Ramirez, F. P., Wines, 88*w*.
Ramirez, I. N., Olive oil, 88*ff*.
Ramirez, M. T., Barley, 88*g*.
Ramirez, P., Brandy, 88*v*.
Ramos, Antonio Maria Taborda, Wine, 117.
Ramos, Antonio Pedro de C., Wine, 112.
Ramos, E., Chocolate, 88*dd*; Honey, 88*p*.
Ramos, J. B., Wheat, 88*c*.
Ramos, Joao Joaquim Redondo, Grapes, 105.
Ramos, Joaquim Antonio, Goat skins, 100.
Ramos, L. F., Cigarettes, 70.
Ramos, M. N., Oil, 119.
Ramos, Manuel Nogueira, Grain, 92.
Randolph, Theodore F., Excavator, 56.
Rangel, Diogo, Wine, 117.
Rangel, Manuel de Souza, Grain, 96; Wine, 117.
Rank, Amos, & Co., Mowers, reapers, etc., 28.
Rankin Manufacturing Co., Meat choppers, portable engine, etc., 33.
Rankin, William, & Sons, Corkwood, 89.
Rapela, L. D., Wine, 88*y*.
Rapela, M., Wine, 88*y*.
Raposa, Vicente Narcizo, Honey, 101.
Raposo, A., Wines, 73.
Raposo, Joao, Cheese, etc., 100.
Rapozo, Joaquim Nunes Vieira, Wine, 112.
Rapozo, Luis, Grain, 92; Flax, 121.
Rasch, Wines, 53.
Rasilla, J., Wines, 88*z*.
Ratinet, Grotto, 157.
Ratto, A. G., Oil, 119.
Ratto, Antonio Gonsalves, Corkwood, 89.
Rauch, Chas., Wagon, 135.
Raumer, C. von, Books on irrigation, 54.
Rawlins & Son, Smalts, 41.
Read, C. A., Lawn mower, 30.
Read, Calvin D. & Ellis D., Corn sheller, 32.
Reali, Giuseppe & Gavazzi, Wax, 63.
Rebello, Dr., Dyeing barks, 68.
Rebello, Silva, Liquor from coffee, 74.
Rebello Valente, & Allen, Beans, 99.
Rebocha, Francisco Freire, Timber, 89.
Rebollo, D., Wheat, 88*c*.
Rech, Jacob, Milk wagon, 135.
Reckhow Preserving Co., Pickles, etc., 20.
Red, B. de la, Wine, 88*cc*.
Red Wing Mills, Wheat, 18; Flour, 21.
Redondo Bros., Wine, 88*cc*.
Redondo, J. B., Cereals, 88*k*; Potatoes, 88*m*; Oils, 88*hh*.
Redondo, P., Wheat, 88*e*.
Reeves, Parvin, & Co., Canned vegetables, 19.
Regallo, A. M., Oil, 119.
Regallo, José Maria da Fonseca, Olives, 104.
Reggio, Arangio Francesco, Liquors, 66.
Rego, Antonio Profirio Gomes do, Nuts, 90; Corn, 92; Wines, 117.
Rego, Francisco M. do A. da F., Wine, 112.
Rego-Freitas, A. P. de, Tea, 70.
Rego, Manuel Diogo, Wine, 111.
Regulez, D., Wine, 88*u*.
Rehnström, W., Drawing of dairy, 60.
Reibstein, Ignaz, Beehives, 56.
Reid, A. H., Butter worker, 35.
Reig y Garcia, F., Cereals, 88*k*; Wine, 88*bb*; Olive oil, 88*hh*.
Reignard, Wines, 50.
Reina, C. J. de, Olive oil, 88*gg*.
Reina, J. M. de, Olive oil, 88*gg*.
Reina, M. A., Wine, 88*z*.
Reines, N. A., Coffee, 70.
Reinhardt, L., & Co., Bonbons, 51.
Reis, A. dos, Oil, 119.
Reis, Antonio N. dos, Grain, 92; Wines, 117.
Reis, Antonio Simoes dos, Beans, 99.
Reis, Jayme Batalha, Portugal, 284, 285.
Reis, L., Silk, 75.
Reiser, Dr., Wine, 56.
Reither, Dr., Germany, 215.
Reixados, A., Wine, 88*d*; Chocolate, 88*dd*.
Reixo, José Antonio Nunes, Wine, 108.
Relvas, Carlos, Wine, 117.

Remak, G., Germany, 215.
Remington, E., & Sons, Plows, etc., 26; Carriage gearing, 37.
Rennie, Wm., Grains, 44.
Rentchler, D. & H., Grain and seed drills, 28.
Repnin, P., Linseed, 124; Flax, 126.
Reppard, R. B., Timber, 135.
Requejo, M., Wine, 88*cc*.
Requena, M., & Sons, Wine, 88*bb*.
Resende, L. de, Silkworms, 75.
Resoagli, L., Boxes, 76
Ressler, H. & G., Wagons, 135.
Retamoso, Count of, Liquors, 88*w*.
Renleaux, F., Germany, 215.
Reus Flour Association, Wheat, 88*h*.
Reus, Industrial Flour Mill of, Flour, 88*r*.
Reuter & Alley, Ale, 136.
Revila, A., Wine, 88*cc*.
Revillon Bros., Peltries, 49.
Rey, L. J., Sugar, etc., 88*s*.
Rey, M. P., Hazelnuts, 88*a*; Cereals, 88*f*; Olives, 88*g*; Beans, 88*k*; Onions, 88*m*; Potatoes, 88*s*; Wines, 88*z*.
Reyes, A., Laurel, 130; Abacá, 133.
Reyes, J. A., Wine, 88*w*.
Reyes, Juana, Cotton, 132; Abaca, 133.
Reyes, Vicente, Wine, 132.
Reyes y Rich, J. A., Barley, 88*e*; Beans, 88*j*; Olive oil, 88*ff*.
Reynolds, A. J., & Co., Evaporators, 37.
Reynolds, E. D. & O. B., Gang plows, 26.
Rezende, L. de, Silkworms, 71.
Rhenish Sparkling Wine Co., 54.
Rhode Island Horseshoe Co., Horseshoes, 38.
Rhodes & Waters, Digger, 36.
Riarola, R., Cereals, 88*h*; Olive oil, 88*gg*.
Ribas, A. L. d'Andrade, Cigarettes, 70.
Ribas, J. L. Sá, Tobacco, 70.
Ribas, Limas, Olives, 91; Wines, 107.
Ribas, Simao, Grain, 95.
Ribeiro, Francisco Maria, Wine, 111.
Ribeiro, J. A. F., Chocolate, 69.
Ribeiro, J. Lopes, Corkwood, 89; Grain, 96.
Ribeiro, Joaquim Antonio, Wine, 112.
Ribeiro, José Joaquim, Wine, 111.
Ribeiro, José Rodrigues, Grain, 92.
Ribeiro, Manuel José, Portugal, 284.
Ribeiro, Manuel Penafiel, Brandy, 111.
Ribeiro, S., Coffee, 71.
Ribeiro, Serafim G., Corkwood, 89; Brandy, 111.
Riber, Villa, & Puerta, Flour, 88*r*.
Ribera, Guarner, & Bros., Vermicelli, 88*s*.
Ribero, J., Skins, 83.
Ribot, E., & Bros., Hemp, etc., 88*ii*.
Ricart, J. M., Oil, 88*ee*.
Ricart y Sanz S., Wine, 88*bb*.
Ricasoli, Bettino, Baron, Wines, 66.
Ricaumont, de, & Co., Wines, 50.
Ricci, Emiliano, Liquors, 65.
Rice, D., & Co., Sylva, 151.
Rice, J., Contractor, 147.
Richards & Co., Self-raising flour, 40.
Richardson, Earp, & Slater, Ale, 41.
Richardson, J. J., & Co., Confectionery, 23.
Richardson Manfg. Co., Mower and reaper, 31.
Richardson, Misses, Cactus, 151.
Richardson, Peter, Hoops, 134.
Richardson & Robbins, Canned fruits, 20.
Richardson, Thomas, Plow, 46.
Richardson, Wm. H., Machines, 32.
Richey, Henry A., Tobacco, 17.
Richmond and Gordon, His Grace the Duke of, Great Britain, 173.
Richmond Plow Works, Steel plows, 25.
Richter, Frederico, Cereals, 68.
Rickham, F. M., Wool, 42.
Rico, A. C., Wheat, 88*h*.
Rico, A. P., Wines, 88*t*; Oils, 88*dd*.
Rico, J., Rice, 130.
Rico, José, Sugar, 132.
Rico y Albert, A., Wines, 88*t*.
Rider, A. J., Cranberries, 38.
Rieders, M. H., Cigarettes, 16.
Riego, V., Sardines, 88*o*.
Riera y Fernandez, J., Wheat, 88*e*; Vegetables, 88*j*.
Rieter, Col. H., Switzerland, 225.
Riga Exchange Committee, Flax, etc., 126.
Rigg, Ben., Soap, 47.
Riggs, M. B., Potato digger, 31.
Rije, Filippe de Jesus, Grain, 96.
Rijo, Joaquim Antonio, Olives, 104; Oil, 119.
Riley, Chas. W., Orange Free State, 255.
Rinaldo, Raffacle, Dried fruit, 64.
Rincon, J., Olive oil, 88*hh*.
Ringwalt, G. P. B., Leaves, 151.
Rio, A. M., Wool, 121.
Rio, J. P. del, & Co., Tobacco, 88*m*.
Rio, P. del, Olive oil, 88*ee*.
Rio, T. R. del, Toads, 81.
Rio Grande do Norte, Province of, Cotton, 74.
Rio-Grande-do-Sul, Province of, Tobacco, 71.
Rio-Novo, Viscountess of, Coffee, 71.
Rio de Janeiro, Military Hospital, Pharmaceutical preparations, 75.
Rio de Janeiro, Province of, and various other Provinces, Samples of woods, 68.
Riobó, J. F., Wine, 88*y*.
Rion, J. H., Cork-oak, 153.
Rios, E., Tropical fruits, 88*b*.
Rioseco, Corporation of, Wheat, 88*h*.
Ripley, Theodore, Shovel scraper, 36.
Ripolles y Perez, M., Brandy, 88*v*.
Riscal de Alegre, Marquis of, Seeds, 88*n*; Wine, 88*s*; Nettle, 88*ii*; Cocoons, 88*jj*.
Riso, P., Cherimolia, 77.
Riso, V., Wheat, 79.
Risques, Augusto, Cereals, 96.
Ritsch, F., Roots, 77.
Ritter, L., Garden seeds, 124.
Ritter, Philip J., Butter, 20.
Rindavets y Femenias, F., Milk, 88*o*; Nonçat, 88*r*.
Rivas, F., Wine, 88*v*.
Rivas, G. R., Peas, 88*k*.
Rivas, P., Wheat, 88*h*.
Rivas, P. de, Beans, 88*k*.
River Bermejo Navigation Co., Wood, 76.
Rivera, A. M., Wines, 88*x*.
Rivera, Gregorio, Fibres, 133.
Rivera, Guarner, Chocolate, 88*cc*.
Rivera, L. de, Bark, 133.
Rivera, R., Wine, 88*y*.
Rivero, T., Almonds, 88*b*.
Rivière, Gardrat, & Co., Brandies, 50.
Riu-kiu han, Fibres, 129.
Rixas y Morillas, Barley, 88*g*.
Rizo, Isidoro, Coffee, 80; Cotton, 86.
Roa, A., & Son, Cotton, 132.
Robers, S. G. de, Wine, 88*z*.
Robert, A., Belgium, 228.
Robertson, T., Plants, 151.
Robinson, C., New South Wales, 180.
Robinson, George, Corkwood, 90.
Robira y Grau, J., Wines, 88*u*.
Robles, S., Olive oil, 88*hh*.
Robles, V., Pelt, 88*ii*.
Robo, M. P., Wax, 88*p*.
Robollo, Domingos Jose, Wine, 112.
Robres, S. G. de, Almonds, 88*c*.
Roca, B., Fish, 88*n*; Preserves, 88*p*; Wine, 88*t*.
Rocamora, J., Leather, 88*o*.
Rocamora, P., Brandy, 88*aa*.
Rocha, A. C. da, Oil, 119.
Rocha, C. da, Snuff, 71.
Rocha & Co., Guano, 122.
Rocha, Feliciano A. da S., Fish, 104.
Rocha-Ferreira, D. da, Tobacco, 71.
Rocha, Francisco Coelhovda, Corks, 89.
Rocha, Ignacio da, Pine lumber, 68.
Rocha, Jose Alexandre da, Wine, 108.
Rocha-Leao, M. da, Coffee, 71.
Rocha, S. de S., Oil, 110.
Rochambeau, Marquis de, France, 209.
Rochester Agri Works, Reapers, etc., 29.
Rochester, I., Pine, 134.

Roco Bros., Pomegranates, 88*a*; Syrup, 88*s*; Wine, 88*y*.
Roco, Vmardell, Preserves, 88*q*.
Roco y Murtra, R., Alcohol, 88*aa*.
Rodo, L. P. de, Coffee, 130.
Rodovalho, P., Matte, 71.
Rodrigues, Antonio Caetano, Wines, 111.
Rodrigues, Antonio Eiro, Brandy, 111.
Rodrigues, Antonio Manuel, Sausages, 103.
Rodrigues, F. P., Beans, 99; Wine, 103.
Rodrigues, J., Flax, 120.
Rodrigues, J. J. L., & Sons, Wine, 108.
Rodrigues, Joao Antonio, Wine, 117.
Rodrigues, José Galhardo, Macaroni, 106.
Rodrigues, Leito J. J., & Sons, Wines, 106.
Rodrigues, M. A., Corkwood, 89; Wine, 112; Oils, 119.
Rodrigues & Nephew, Preserved meats, 103.
Rodriguez, A., Wheat, 130.
Rodriguez, B. N., Wheat, 88*c*.
Rodriguez, E., Wool, 88.
Rodriguez, F. M., Barley, 88*c*; Peas, 88*i*.
Rodriguez, J., Olive oil, 88*ee*; Cereals, 88*f*.
Rodriguez, J. R., Olive oil, 88*ff*.
Rodriguez, J. T., Wines, 88*x*.
Rodriguez, José, Maguey, 133.
Rodriguez, L., Seeds, 131; Sugar, 132.
Rodriguez, M. I., Fruits, 88*b*; Cereals, 88*f*; Flax, 88*ii*; Vegetables, 88*k*; Tubers, 88*m*.
Rodriguez, R., Wheat, 88*c*.
Rodriguez, S., Resins, 77; Wines, 83.
Rodriguez, T., Wheat, 88*f*.
Rodriguez, V., Butter, 88*o*.
Rodriguez, Victor, Retortuno, 77; Grass, 78; Wines, 83.
Rodriguez y Gomez, C., Peas, 88*k*.
Rodriguez y Rodriguez, F., Wheat, 88*f*.
Rodriguez, Z., Cereals, 88*f*; Carobs, 88*k*.
Roederer, T., & Co., Wines, 50.
Roehrs, I., Begonia, 151.
Roempler, L., Plants, 157.
Roeper, J. F., Macaroni, 54.
Roger, jr., & Co., Millstones, 52.
Roger, Son, & Co., Millstones, 48.
Rogers, C. B., Seeds, 18; Cultivators, etc., 25.
Rogers, Francis P., Milk cans, 35.
Rogers, John S., Gelatine, etc., 18.
Rogers, M., Egypt, 252.
Roguette, José Ferreira, Seed, 96.
Roibon, E., Wood, 76; Cord, 87.
Roibon, F., Paintings, 76.
Roig, P., & Co., Wine, 88*aa*.
Roig y Sancho, L., Wine, 88*aa*.
Roig y Serra, J., Wines, 88*n*.
Rojas Aguado, J., Wine, 88*s*.
Rokar, J., Vinegar, 50.
Rolfan, M., Olive oil, 88*ee*.
Rolfan, M. M., Wine, 88*u*.
Rolker, A., & Sons, Flowers, 151; Stands, 153.
Rolleston, C., New South Wales, 180.
Roma, J. M. Goncalves, Wine, 112.
Roman, J., Wood, 77.
Roman, J. P., Honey, 88*p*.
Roman, Medardo, Wheat, 80.
Roman, S., Cereals, 88*d*.
Romano, Gaetano, Sumac, 63.
Romany, Vicente, & Sons, Wines, 88*s*.
Romao, Joanna Balbina, Sweetmeat, 103.
Romao, Visc. of Villarhino, Portugal, 285.
Romeo, Michele, Wine, 65.
Romer & Son, I., Wine, 56.
Romero, A. S., Wool, 88*jj*.
Romero, E., Brandy, 88*z*.
Romero & Ferrin, Preserves, 88*q*.
Romero, J., Liquors, 88*y*.
Romero, J. P., Cereals, 88*f*; Chestnuts, 88*q*.
Romero, M. C., Grapes, 88*a*; Wine, 88*t*.
Romero, R. E., Ropes, 88*ii*.
Romero, R. G., Wine, 88*y*.
Romero y Romero, J., Rye, 88*f*; Flax, 88*ii*.
Romerotoro, Marquis of, Dried fruit, 83*q*.
Ron, A., & Son, Coffee, 131.
Ron, R., Wheat, 88*e*; Olive oil, 88*ff*.
Ronchetti, Valentin, Pickled partridges, 85.
Ronco, G., Peas, 88*k*.
Ronnberg, A., Belgium, 229.
Ronneberg, Carl A., Salt fish, 61.
Ronzani, Camillo, Beer, 66.
Rooke, H. A. P., Great Britain, 173.
Roos, A., Beer cooler, 137.
Root, D., Son, & Co., Plows, 26.
Roquette, Francisco Ferreira, Portugal, 284.
Roquette, José Ferreira, Wine, 112.
Rosa de Jesus, Maria Angelica, Vegetables 97.
Rosa, J. da Graca, Wool, 121.
Rosa, J. de la, Wool, 88*jj*.
Rosa, Joaquim M. V., Honey, etc., 103.
Rosa, José da G. P., Grain, 92; Honey, 102.
Rosa, José Maria, Wine, 112.
Rosa, Rosauro de la, Corn, 78.
Rosa & Son, Sugar, 132.
Rosa y Silva, Maize, 88*g*; Wine and brandy, 88*z*; Oil, 88*gg*.
Rosado, Antonio J. da S., Honey, etc., 103.
Rosado, Joao A. M., Olives, etc., 103.
Rosaria Sub-commission, Skins, 83.
Rosario, Tala, Stuffed birds, etc., 81.
Rosas, M., Cereals, 88*i*.
Rose, Miss S., Beer, 137.
Rose, W. L., Cotton-tie, 38.
Rosenbaum, F., Birds, 18.
Rosenkrone, Baron, Grain, 61.
Rosenstein, B., Wines, 53.
Rosenstock, G., Tobacco, 70.
Rosenthal, I., Wheat, 55.
Rosette, José, Grain, 92.
Rosing, Ulrik, Mask for killing cattle, 62.
Rosing's, A., Widow, Condensed milk, 61.
Rospigliosi, Clemente, Wine, 66.
Ross, E. W., & Co., Straw cutter, 35.
Ross, George, Plows, 46.
Ross, John, Mills, 33.
Ross, R. D., South Australia, 184.
Rossi, Cav. Cesard Leopardi, Olives, 63.
Rossi, E., Plow, 67.
Rossi, Leopardi Cav., Wine, 65.
Rossi, Tedeschi Francesco, Wine, 65.
Rossi, Vittorio, Vermouth, 65.
Rössler, A., Wines, 54.
Rothchild, Joseph, Corn-planter, 28.
Rothe & Thorndike, Wines, 53.
Rothschild, Baron A. de, France, 209.
Rouget, P., Cordials, etc., 126.
Roullé, E., Wines, 50.
Rousseau Bros., Liquors, 50.
Roussillon, J., & Co., Wines, 50.
Rouyet, Guillet, & Co., Brandies, 50.
Roverano Bros., Sweetmeats in syrup, 85.
Rovere, Caetano Olympio, Portugal, 285.
Rowand, Hillman, & Son, Charcoal, 15.
Rowland, T., & Sons, Shovels, spades, 26.
Roy, Ponseti, & Co., Hazelnuts, 86*b*.
Royal Swedish Com., Fish, 59; Bread, 60.
Royal Wine Company, Wine, 115.
Royal Wurtemburg Furnaces, Scythes, 54.
Royce, John S., Reapers, 29.
Royo, D., Wheat, 88*h*; Blue vetch, 88*l*.
Royo, M., Strawberries, 88*r*; Alcohol, 88*cc*
Roza, Julia, Preserved orange, 104.
Rozas, M., Wheat, 88*i*.
Rua, Manuel Ribeiro, Grain, 92.
Ruata, J., Claret, 88*x*.
Rubea, M., Wine, 88*x*.
Rubidge, C., Grease wool, 43.
Rubisco, C., Wax, 88*o*.
Rubisco, C. C., Cereals, 88*d*; Beans, 88*f*.
Ruddenklan, J. G., Wheat, 42.
Rudolph, F., Wine, 88*v*.
Rue, Geo. W., Garden cultivator, 31.
Rue, J. Chalmers, Gang plow, 26.
Rue, Miss Lizzie, Models, 151.
Rufino, Geronimo C., Corn, 78; Raisins, 84.
Ruivo, Joao Lopes, Grain, 93.
Ruiz, Clementé, Corn, 78; Skins, 83.
Ruiz, Clemente S., Nuts, 84.
Ruiz, F. E. de Chocolate, 86*dd*.
Ruiz, F. M., Brandy, 88*z*.

Ruiz, G., White corn, 78.
Ruiz, J., Coffee, 131.
Ruiz, R., Wines, 88*v*.
Ruiz, S., Rice, 88*i*.
Rulsann & Horrman, Beer, 137.
Rumford Chemical Works, Yeast powder, 23; Fertilizers, 36.
Runkel, H., & Co., Chocolate, etc., 24.
Ruppert, J., Beer, 137.
Russ & Co., M. H., Hops, 56.
Russell, C., & Co., Self raker, 29.
Russell, G., New South Wales, 180.
Russell, Wm., Horse shoes, 38.
Russia, Statistics of, 289.
Russian Society of Forestry, Seeds, 123.
Russo, Biagio, Paste for soup, 64.
Rustem Effendi, Turkey, 288.
Rutherford, A. W., Wool, 42.
Rutschman Bros., Self-feeding hand drill, 28.
Ruud, J. A., Pale ale, 62.
Ryder, B. L., Dryer, 37.
Rymarenko, M., Tobacco, 124.
Rynal, P. H., Cattle food, 38.

S.

Sa, Antonio A. do C. e, Grain, 96; Honey, etc., 103.
Sa, Antonio Manuel da Cunhae, Wine, 109.
Sa, José Felippe de, A. de B., Wine, 117.
Sa, Sabino Barros de, Honey, etc., 103.
Saal & Schlich, Beer wagon, 138.
Saarbach, E., & Co., Wines, 54.
Saatchi & Mangoobi, Tobacco, etc., 124.
Saavedra, F., Peas, 88*k*, 88*k*.
Saavedra, J. M., Beans, 88*l*.
Sabatier-Granier & Son, Wines, 50.
Sachetti, C. B., Oil, 118.
Sacristan, T., Wheat, 88*c*.
Sadoine, E., Belgium, 229.
Saenz, E. L., Olive oil, 88*ee*.
Saenz, L., Wines, 88*y*.
Saenz, V., Skins, 83.
Safarana, A. T., Beeswax, 72
Safon, A., Vegetable hair, 88*ii*.
Saga-ken, Government of, Tobacco, 128.
Sagiosa, Viscountess of, Wine, 110.
Sahlmann Bros., Beer, etc., 54.
Sainz, M., Peas, 88*c*, 88*i*.
Saiz, C. L., Wheat, 88*c*.
Sala, Count Della, Turkey, 288.
Sala, E. de, Almonds, 88*a*.
Salarich, J., Silk, 88*jj*.
Salas, F. S., Wine, 88*w*.
Salazar, M. M., Oil, 119.
Salazar y Cuebas, P., Wheat, 88*e*.
Salcede, A. P., Esparto grass, 88*ii*.
Salcedo, J. L., Wine, 88*z*.
Salcedo y Gamez, Olive oil, 88*ff*.
Saldanha, Capt. Luiz de, Brazil, 263.
Saldanha, Dr. José de, Brazil, 263.
Salema, Mattas, & Co., Corks, 90.
Salerno Special Com., Manna, 63; Paste, 64.
Salgado, Antonio Lopes Vidigal, Wine, 109.
Salgado, C., Wine, 88*y*.
Salgado, Domingos, Wine, 114.
Salgado, J. M., Wine, 88*y*.
Salgado, Julio Eivar d'Azevedo, Corkwood, 89; Seed, 96; Dried pears, 105.
Salgado, Marianno Roza, Beans, 99.
Salgado, P. A., Wine, 88*y*.
Salgueira, José Anelino Alfonso, Corn, 93.
Salgueiro, Baroness, Wine, 113.
Salibra, Antonino, Wine, 66.
Salicath, Oscar, Sugar drops and punch, 62.
Salinas, F., Wine, 88*x*.
Salivia, F., Rice, 130.
Salles, José Joaquim Pereira, Corkwood, 89.
Sallés, S., Wine, 88*u*.
Salt, J., Tree, 153.
Salta, Provincial Com. of, Seeds, 76; Wheat, 79; Lines, etc., 81; Skins, 82; Cotton, 87; Hair work, 88.
Salvadios, G. D., Peas, 88*k*.
Salvadó, J., Wax, 88*o*.
Salvadó, M., Wine, 88*b*, 88*aa*.
Salvadó, Mateo., Olive oil, 88*gg*.
Salvadó, S., Hazelnuts, 88*b*; Olive oil, 88*gg*.
Salvador, S., Carobs, 88*l*.
Salvisberg, Mr., Switzerland, 225.
Salvo, Salvatore de, Wines, 65.
Samaniego, M. G., Wheat, 88*g*.
Samar, Provincial Board of, Rice, 130.
Samoggia, Gaet., & Bros., Sausages, 64.
Sampaio, Alexandre T. de M., Seed, 98.
Sampaio, J. M. Leite, Unhulled rice, 69.
Sampaio, José da Cunha, Wines, 114.
Sampér, J., Wheat, 88*i*.
Samper, R., Olives, 88*p*.
Sampietra, A., Wine, 88*x*.
Sanabria, J., Sausages, 88*p*.
San Bernardo, Count of, Beans, 88*j*; Olives, 88*q*, 88*ee*.
San Carlos, Sub-commission of, Cocoons, 88.
Sanchez, A., Wine, 88*v*.
Sanchez, A. C., Oranges, 88*b*.
Sanchez, B. I., Flour, 88*r*.
Sanchez, B. N., Wheat, 88*g*.
Sanchez Bros. & Granados, Grapes, 88*a*.
Sanchez, F., Wheat, 88*f*.
Sanchez, F. P., Wheat, 88*g*.
Sanchez, J., Barley, 88*c*.
Sanchez, J. A., Wine, 88*s*; Olive oil, 88*gg*.
Sanchez, J. F., Beans, 88*j*.
Sanchez, M. Wheat, 88*d*.
Sanchez, M. R., Cereals, 88*c*.
Sanchez, Modesto, Beans, 80; Viper, 81; Grapes, 84.
Sanchez, R. H., Honey, 88*p*.
Sanchez, S., Seed, 88*n*; Panic grass, 88*d*.
Sancta Catharina, Presidency of, Coffee, 69, 71; Flour, 73; Thread, 75.
Sancta Maria de Soledade, Cotton, 74.
Sande, O., Cyperus, 88*ii*.
Sande Olivares, J. de, Peas, 88*i*.
Sandeman & Co., Wines, 114.
Sandford, Col. Herbert, Great Britain, 173.
Sandon, Rt. Hon. Visc., Great Britain, 173.
Sandoval, J. J., Oil, 88*dd*; Esparto grass, 88*hh*.
Sandpichler, Leopold, Candied fruit, 55.
Sandusky Machine & Agricultural Works, Corn sheller, 34.
Sandwich Manufacturing Co., Harvester, 31.
Sanguinetti, P. A., Boxes, 153.
Sanhoso, José Regoa, Raisins, etc., 103.
San Isidro, Parson of, Bark, 133.
San Juan, Provincial Commission of, Prepared skins, baskets, 81; Skins, 83.
San Luis, Com. of, Resin, 77; Beans, 79; Nest, 81; Skins, 82; Cotton, wool, 87.
San Paulo, Province of, Cotton, 74.
San Roman, A. L. de, Liquors, 88*u*, 88*y*.
San Vicente, Justice of, Horse-hair, 88.
Sanroma y Boada, D., Mistela, 88*aa*.
Sans, J., Widow of, Leather, 88*o*.
Sans, N. Roca, Potatoes, 80.
Sant'Anna, Baron of, Portugal, 285.
Santa Anna, José Candido de, Olives, 105.
Santa Catalina, Agricultural School of, Beehives, 76; Beans, corn, grasses, 78.
Santa Clara Convent, Sweetmeat, 104.
Santa Clara, F. de P., Grain, 92; Oil, 119.
Santa Coloma, Isaac, Raisins, 84.
Santa Fé, Provincial Commission of, Woods, 76; Dry lucern, 80; Wolf, lion, etc., 84.
Santa-Maria da Soledade, Grain, 69.
Santa Maria Sub-com., Corn, 79; Skins, 82.
Santa Marta, Marquis of, Wool, 88*jj*.
Santa Martin, M., Olive oil, 88*ff*.
Santacana, J., Wine, 88*u*.
Santaló, E., Wheat, 88*d*; Olive oil, 88*ee*.
Santamarina, J., Olives, 88*q*.
Santarelli Bros., Wines, 88*v*.
Santiago del Estero, Prov. Com. of, Woods, 77; Wheat, 80; Flour, 85; Fibre, 87; Cacti, 159.
Santillan Bros., & Co., Skins, 82.
Santivañez, P. J. C. de, Olive oil, 88*ad*.

Sande Olivares, J. de, Peas, 88*i*.
Santos, A., Rice, 130.
Santos, Antonio dos, Wine, 114.
Santos, Antonio Ferreira dos, Grain, 93.
Santos, Antonio Joaquim, Beans, 98.
Santos, Antonio Vicente dos, Wine, 112.
Santos, Ascencios José dos, Nuts, 91; Beans, peas, 97; Sweetmeats, etc., 103.
Santos, C. dos, Coffees, 71.
Santos & Ferreira, Preserved vegetables, 72.
Santos, J. M. dos, Oil, 118.
Santos, João Bernardo dos, Wine, 109.
Santos, Joaquim F. S., Honey, 103.
Santos, Joaquim Ferreira, Beans, 99.
Santos, Jose Fogaco de C. e, Wine, 112.
Santos, Luis Marcelino dos, Honey, 101.
Santos, M. A. dos, Tobacco, 70.
Santos, Narcizo José dos, Charcoal, 100.
Santos, P., Cereals, 88*e*; Beans, 88*f*.
Santos Reis & Co., P. A. dos, Silk, 75.
Sañudo, R. T., Wine, 88*bb*.
Sanz, V., Coffee, 130.
Sanz y C. latañazor, J., Peas, 88*j*.
Sanz y Salvá, F., Olive oil, 88*gg*.
Saperas, F., Wheat, 88*h*, 88*i*.
Sarafana, Felix, Wax, 68.
Saraiva, Francisco Martins, Nuts, 90; Fruits, 91; Cereals, 95; Cheese, 99; Wool, 121.
Saramago, Francisco Ferreira, Corkwood, 90; Almonds, 91; Honey, 101.
Sarda, P., Wine, 88*a*.
Sardinha, Resins, 68; Wine, 74.
Sardinha, J. M. da S., Grain, 93; Wool, 121.
Sarmento, A. F., Wine, 114; Flax, 120.
Sarmento, Bernardo Figueiredo, Wines, 114.
Sarmento, M. G. de, Wool, 121.
Sarmiento, A. A., Wheat, 88*d*.
Sarmiento, J. L., Corn, 78; Raisins, 84.
Sarro y Salat, A., Brandy, 88*aa*.
Sasatin, Leoncia, Sugar, 132.
Sasôt, J., Wheat, 88*i*.
Sato, I., Tea, 128.
Sato, S., Tea, 128.
Sattler & Co., Whisky, 22.
Saucian, C., Cocoa, 131.
Saunders, Robert, Ore dresser model, 43.
Saunders, W., Plants, 151.
Saur, Usteri, Switzerland, 225.
Sauvage, C. Vendas Novas, Brandy, 112.
Sauveur, J., Belgium, 229.
Savorini, Francesco, Liquors, 66.
Sawada, Z., Liquors, etc., 129.
Sawyer, L. D., & Co., Mower, 46.
Say, C., Sugar, 50.
S. Bento d'Ave Maria Convent, Fruit, 104.
Scala, Baron S. della, Sumac, honey, wax, 63.
Scala, Giuseppe, Wines, 66.
Scala, Pasquale, Wine, 66.
Scals, J., Almonds, 88*a*; Wheat, 88*c*; Wine, 88*t*.
Scantlin, Thos., & Sons, Sugar evaporator, 37.
Scarizza, Giovanni, Liquors, 56.
Scattergood, H. V., Cotton gin, 32.
Schade van Westrum, J. C., Gin, 58.
Schaffer, William L., Maize and sheaf, 16; Sago palms, 152.
Scharhaus, John, Mashing machine, 139.
Schalk, C. W., Malt mill, 138.
Schall & Co., Ornamental confectionery, 23.
Schamalake, Barley, 68.
Scharf, Louis, Water cooler, 34.
Scharr, E. E. A., Belgium, 229.
Schary, Johann Michael, Hops, 55.
Schauz, C., Wagons, 135.
Scheele, G. von, Cereals, 59.
Scheffer, Melchior, Barley, 68.
Scheidecker, C., Shearers, 52.
Scheierman & Co., Vinegars, 126.
Schellhorn, Wines, 53.
Schenck, Dr., Switzerland, 225.
Schenck, Marcus P., Fruit press, 34.
Schenck, P. C., jr., Mower and reaper, 29.
Schenkel, August, Wine, 56.
Schepp, Leopold, Desiccated cocoanut, 20.
Schere, S., Barley and malt, 136.
Scherzinger, W., Tobacco, 53.
Schild, Joao, Cigars, 70.
Schimmelpfung, A., Rye flour, 72.
Schimmelpfeng, A., Wool, 75.
Schimper & Immen, Mashing machines, 139.
Schirod, Chr., Wheat, rye, corn, etc., 61.
Schlemmer, August von, Malt, 139.
Schlesinger Bros., Hops, 136.
Schlitz, Jos., Brewing Co., Beer, 137.
Schlotterer, S., Beer, 137.
Schmahl, M., Copper-washing apparatus, 138.
Schmalzl, George, Leather, 55.
Schmid, Bernheimer, & Co., Malt, 136.
Schmidt & Kett, Wines, 53.
Schmidt, T., Denmark, 236.
Schmitle & Kohne, Beer, 137.
Schmitt, Franz, Leather, 55.
Schmitz, Theo., Measures, 139.
Schnabel, Julius, Brandy, 56.
Schneider, Edward Albert, Ess. of beef, 40.
Schneider & Schorn, Rum, 54.
Schober, J. H. S., Flour, 57.
Schoenich, Charles, Russia, 294.
Schoki, Malaga, 88*cc*.
Scholander, F. W., Sweden, 240.
Schomburgh, Dr., South Australia, 184.
Schoonmaker, Henry, Cereals, 16.
Schörke, A., Syrups, 53.
Schrazer, P., Cocoons, 75.
Schroeder, Nicolas, Leaf tobacco, cigars, 81.
Schuling, G., Corn, 79.
Schulmann & Co., Wine, 73.
Schultz, A., Isinglass, etc., 124.
Schulz & Reuter, Wines, 53.
Schumacher, E., Switzerland, 225.
Schumacher, Ferd., Oatmeal, etc., 21.
Schurmann, Biscuits, 118.
Schütt, A., Wines, 54.
Schuttler, Peter, Wagons, 135.
Schwaner & Amend, Beer, 137.
Schwartzer's, A., Successors, Wine, 56.
Schwarz & Sons, Hops, 55.
Schwarzman, H. A., Architect, 147.
Schwarzwallder & Son, Kegs, 138.
Schweikart, A., Wool, 88.
Sciacca, della Scala, Dried figs, 64.
Scocchiolini, Adone, Mustard, 63.
Scott & Co., Oatmeal, 44.
Scott, J. R., & Co., Hops, 136.
Scott, Robert, Geraniums, 154.
Screw Mower & Reaper Co., Grain drills, 28.
Scuderi, Giuseppe, Wine, 65.
Seabra, A., Wines, 114; Oil, 118.
Sebastean, Jacob, Wagon, 135.
Sebastiao, S., Viscount of Leiria, Brandy, 117.
Secrétan, E., Copper, 48.
Sedo, J. V., Wheat, 88*h*.
Seed, Frederick, Churn, 35.
Segundo, F., Wine, 88*v*.
Ségur & Obier, Paté de foie gras, 49.
Segura, J., Grits, 88*s*.
Seher, H. L., Leeches, 18.
Seiberling, J. F., Mower and attachments, 29.
Seibrecht, H. A., & Co., Rock-work, 155.
Seidenburg & Co., Cigars, 17.
Seidler, C., Tobacco, 70.
Seiger, I., Beer, 137.
Seignouert Bros., Wines, 51.
Seixas, Firmino, Portugal, 284.
Seixas, José M. A. de, Beans, 99; Wine, 117.
Sekizawa Akekio, Japan, 267.
Selby, James, & Co., Corn planter, 27.
Seligsberg, A., Tubs, grain box, 138.
Sellers, J., jr., Plants, 152.
Sellés, J., Maize, 88*c*, 88*r*.
Sells, Hugh, Cider mills, 46.
Selser & Bro., Canned fruits, 20.
Semenkoff, V., Meat extract, 124.
Semide Convent, Preserved turnips, 104.
Sena, Joao Pereira, Honey, 101.
Sencadas, M. G. M., Flax, 120.
Seneca Co. Agricultural Society, Grains, 16.
Senna Bello, M. T. de, Oil, 119.

Senna, N. B. de, Tobacco, 70.
Sensenberger, Wm., Rennet, 19.
Sensfelder, A., Manure, shearers, 52.
Sepper, H., Matte, 70.
Sepúlveda, V. M. de, Olive oil, 88*ee*.
Sequeira, Luis Clemente de, Wine, 114.
Sequeira, Pedro Victor da C., Portugal, 284.
Sequira e Sa, Francisco Theo., Wine, 112.
Sequira, Thomaz Victor da C., Portugal, 285.
Sereiz, E. C., Carobs, 88*l*.
Sereto, Domingos Francisco, Wine, 109.
Sergeieff, Alexis, & Apraxin, Sugar, 125.
Serodio, José Antonio Goncalves, Wines, 114.
Serpa, F. L., Oil, 119.
Serra, Joaquim, Honey, etc., 103.
Serra, O., Preserves, 88*q*.
Serrado, Viscount of, Wine, 109, 114.
Serrano, J., Implements, 88*jj*.
Serrano, J. L., Wax, 88*f*, 88*n*.
Serrano, M., Wine, 88*cc*.
Serrano, M. P., Wheat, 88*g*.
Serrano, M. R., Wine, 88*s*.
Serrano, T., Wheat, 88*d*.
Serrano y Fernandez, F., Wheat, 88*h*.
Serrazanetti, Giovanni Anzola, Tomato sauce, etc., 64.
Server & Brenz, Wagons, 135.
Serzedello, J. P., Asparagus, olives, 104.
Sessler, Moritz, & Leopold, Malt, 56.
Seve, Sr. Don Eduardo, Chili, 267.
Sevilla, J., Wheat, 88*f*.
Sevilla National Manufactory of Tobacco, Tobacco, 88*m*.
Seychelles Archipelago, Statistics of, 196.
Seyler, F., Wines, 53.
Seymour, John B., Seed-planter, 28.
S. Francisco, Municipality of, Woods, 68.
Shada, O. S., Coal, 138.
Shafer, J. Calvin, Fruit syrups, etc., 22.
Sharmon & Foster, Mower, 46.
Sharp, J. S., Butter, 45.
Shattloff, J., Grain, 123.
Shaw, Philander, Machines, 35; Beehive, 38.
Sheble & Fisher, Hay forks, etc., 25.
Sheeler, Buckwater, & Co., Machines, 32.
Sheep-wool Washing Co., Cleaned wool, 56.
Shelton Tobacco Curing Co., Hanger, 16.
Sherer, Edward, Turkey, 288.
Sherrard, L. J., Victoria, 182.
Shields & Bro., Huskers, 33; Rings, etc., 37.
Shiga-ken, Government of, Tobacco, 128.
Shigenao, Isuchiya, Japan, 259.
Shipley, A. B., & Son, Fishing tackle, 18.
Shippen, Edward, Argentine Rep., 265; Chili, 267.
Shirakawa-ken, Government of, Tobacco, 128.
Shove, G. A., Desigus, 153.
Shreiner, J. H., Machines, 32.
Shuck, Saml., Anti-nervous cigars, 17.
Siccoli, Guido, Wine, 66.
Sick, C., Beer, 54.
Sidenbladh, P. E., 240.
Sidoroff, M., Woods, 123; Fish, 124.
Siebenburger Wine Association, Wines, 55.
Sieber, France, 209.
Siegfried, Wines, 53.
Siegfried, Col., Switzerland, 225.
Sierra, Marquis of, Viesca de la, Wine, 88*s*.
Sierra, R. de la, Occiput of ostrich, 83.
Sievert, M., Dyes, 77.
Sifredi, J. B., Brandy, etc., 88*u*.
Silges & Ferrando, Hides, 82.
Silk Mfg. Co., Silk balls, 122.
Silliman, James R., Pine, 134.
Silva, A. Augusto da, Wine, 109.
Silva, A. Ignacio da, Tobacco, 70.
Silva, A. L. da, Corn, 93; Flour, 106; Flax, 121.
Silva, Antonio da, Wine, 114.
Silva, Antonio Ferreira da, Wine, 114.
Silva, Antonio Jose da, Cherry tree, 90; Grain, 95; Seed, 96, 97; Beans, 99; Wine, 112.
Silva, Antonio Manuel, Flour, 106.
Silva, Antonio Martins da, Wines, 109.
Silva, Antonio Mendes da, Honey, 101.
Silva, Antonio Pires da, Wines, 109.
Silva, Antonio Zavier Torres e, Wine, 114.
Silva & Arcos, Wines, 88*z*.
Silva, C. da, Laranginha, 74.
Silva, C. J., & Sons, Coffee, 69.
Silva, Carneiro da, Manioc flour, 72.
Silva Carvalho, Jose Leonardo da, Grain, 93.
Silva & Cosens, Wine, 108.
Silva, D. d'A. e, Flax, 120.
Silva, Daniel Pereira da, Wines, 109.
Silva, Diogo Monteira, Wax, 101.
Silva, Domingos, Woods, 68; Olives, 103.
Silva, E. da C. e, Biscuits, 118.
Silva, E. R. da, Bread, 118.
Silva, Eliza Ludovina da, Wines, 116.
Silva, Ernesto de Mendonca, Wine, 109.
Silva, F., Araza, 80; Cotton, 86.
Silva, F. J. N. da, Cotton, 74.
Silva, Francisco Candido da, Wine, 109, 117.
Silva, Francisco da, Red wine, 106.
Silva, Francisco Ferreira da, Sausages, 104.
Silva, Francisco Jose de Bastos, Wines, 109.
Silva, Francisco Pereira da, Wines, 114.
Silva, G., Wheat, 88*i*.
Silva, Gaetano da Luz, Portugal, 284.
Silva, J. D. de, Wool, 121.
Silva, J. H. da, Brandy, 73.
Silva, J. J. C. da, Farina, 73.
Silva, Jeronymo Jose Alves da, Peas, 99.
Silva, Joao Miguel, Honey, 101.
Silva, Joaquim Jose de Freitas e, Wines, 112.
Silva, Joaquim Medas da, Corn, 93.
Silva, Joaquim N. da, Acorns, 90; Honey, etc., 102; Oil, 119.
Silva, Joaquim Ribeiro da, Grain, 96.
Silva, Joaquim Tavares da Cruz, Seed, 96.
Silva, Jose Gomes da, Wine, 109.
Silva, Jose Gonsalves da, Wine, 112.
Silva, Jose Maria da, Wine, 112.
Silva, Jose Nunes da, Beans, 98.
Silva, Leal, & Santos, Preserves, 72; Vermicelli, 74.
Silva, M. C., & Sons, Tapioca, 73.
Silva, M. R. da, Oil, 118.
Silva, Manuel Joaquim da, Woods, 90; Grain, 93; Wine, 112.
Silva, Marcellino Ferreira da, Seed, 99.
Silva & Sons, Cocoa, 69.
Silva, T. R., Chocolate, 88*cc*.
Silva, T. R. da, Resins, 68; Oil, 74.
Silva y Perez, J., Maize 88*g*.
Silveira, Joao Vicente da, Wines, 100.
Silveira, Manuel Jose da, Nuts, 91; Corn, 93; Oil, 118.
Silveira, N., Aguardente, 74.
Silver & Deming Mfg. Co., Machines, 33.
Silveyra, A., Artificial manure, 88.
Simarro, M., Wine, 88*s*.
Simmons & Sons, Ice cream freezer, 35.
Simo, J. M., Wine, 88*aa*.
Simó, P., Wines, 88*aa*.
Simoes, Antonio Augusto da Costa, Wine, 114.
Simoes, Francisco, Wine, 109.
Simoes, Joaquim Antonio, Wine, etc., 114.
Simon, A., Weather vanes, 138.
Simone, Raffaele, Paste, 64.
Simonis, A., Belgium, 229.
Siqueira, M. B. de, Coffee, 70.
Sirvent, A., Seed, 88*n*.
Sirvent y Oliver, P., Almonds, 88*b*; Alcohol, 88*aa*; Olive oil, 88*hh*.
Siscar, R., Wine, 88*z*; Nuts, 88*b*; Oil, 88*hh*.
Sisley, J., Geraniums, 157.
Sisternes, M., Wheat, 88*d*.
Sitilla y Martorell, N., Wine, 88*u*.
Sivokhin, E., Honey, 124; Gingerbread, 126.
S. José, Municipality of, Woods, 68.
Skinner, E. W., Cane crusher, 34.
Skinner & Wood, Engine and boiler, 33.
Skiret Bros., Sugar, 88*s*.

Slack, Mrs. J. H., Coste trays, 19.
Slater, R. P., Malt, 44.
Sledge, McKay, & Co., Raw cotton, 24.
Slocum, W. H., & Bro., Mincemeat, 19; Machines, 33.
Sloet van Marxveld, Baron, G., Syrup, 58.
Smet-de Smet, C. de, Belgium, 228.
Smidt, Joao Luis, Skins, 101.
Smirnoff, P., Cordials, etc., 126.
Smith, Aaron W., Horseshoes, 38.
Smith, David, & Co., Wools, 41.
Smith, Hamilton E., Churns, 35.
Smith, Hon. J. T., Victoria, 182.
Smith's Homeopathic Pharmacy, Soluble chocolate, 24.
Smith, Isaac, Apple wine, 22.
Smith, J. C., Grains, 16.
Smith, J. G., Boiler, 34.
Smith, J. M., & Son, Steep tub, 138.
Smith & Lynch, Boilers, 152.
Smith, Mrs. Gina, Anchovies, 61.
Smith, Peter E., Sulky plow, 26.
Smith, R., Ale, 136.
Smith, R. & Co., Wines, 45.
Smith, S. W., Flowers, 151.
Smith & Sons, J. M., Tank, 33.
Smith, T. & H., & Co., Ess. of coffee, 40.
Smith, Thomas, & Co., Cakes, 41.
Smith, W. E., South Australia, 184.
Smith, Wright, Table sauce, 20.
Smits, F. H. M., Strong beer, 58.
Smythe, Earle & Co., Elastic gums, 15.
Snedeker, David, Preserved fruits, 20.
Snider Bros., & Co., Cream biscuit, 24.
Soares, Antonio C. d'A., Vinegar, 108.
Soares, Bento de Freitas, Portugal, 285.
Soares, Joao B. R., Seed, 98; Wines, 114.
Soares, Jose Severino, Wine, 112.
Soares, O. J., Cotton, 74.
Soberano & Co., Hazelnuts, 88*b*, 88*z*.
Sobral, B. M. C., Oil, 118.
Sobral, Jose Joaquim, Wines, 114.
Sobrinho, Felix F. T., Macaroni, 106.
Sobrinho, Jose Guerreiro de L., Cheese, 99.
Sobrinho, Jose Martins Leitao, Wine, 112.
Sobrinho, Rafael B., Grian, 95; Honey, etc., 102.
Society "Burchers," Liquors, 88*t*.
Society "El Porvenir Agricola," Tobacco, 88*m*.
Society of Friends of the Country, Las Palmas, Agave, 88*ii*.
Society "La Edetana," Rice, 88*r*.
Society "Palma y Quesada," Wines, 88*w*.
Soeiro, Balthazar Rodrigues, jr., Brandy, 112.
Sokoloff, J., Tobacco, etc., 124.
Sokoloff, N., Isinglass, etc., 124.
Sokolooka Sugar Mfg. Co., Sugar, 125.
Solá, F., Wine, 88*u*.
Sola, J., Cheese, 82.
Soldan, A., Wine, 88*e*, 88*x*, 88*jj*; Vegetables, tables, 88*j*; Olive oil, 88*ff*.
Soldevilla, T. M., Pomegranates, 88*a*.
Soler, L., & Co., Brandies, 88*cc*.
Soler y Siguier, J., Wheat, 88*c*.
Soler y Stussa, V., Vegetables, 88*i*, 88*t*, 88*dd*.
Soler, V., Dyes, 77; Feathers, 84.
Solfatare de Pozzuoli Manufacturing Co., Manure, 52.
Solinas, Anas Giuseppe, Wines, 65.
Solla, J., Yareta, 77.
Solnitzky & Mittler, Malt, barley, 55.
Solonzano, J., Oats, 88*f*.
Somoza, R. M. N., Wine, 88*t*.
Soria, F. F., Carob seed, 88*n*.
Soria, M., Vinegar, 88*t*.
Soria, M., de, Wine, 88*v*.
Soriano, I. M., Almonds, 88*a*.
Sorias y Domenech, J., Beans, 88*l*.
Sorro Bros., Skin, 49.
Sorver, Cook, & Co., Tobacco, 16.
Sostres, F., Hazelnuts, 88*b*.
Sotos, A., Wine, 88*r*.
Sotillo, M., Wine, 88*cc*.
Soto, J. D., Peas, 88*i*.
Sotomayor, E. A., Wine, 88*w*.
Sotorra, A. C., Hides, 88*o*.
Soubeyran, Baron de, France, 209.
Soudée, Wines, 50.
Soullier & Brunot, Lime, 48.
Soure, Joaquim Manuel Soares de, Wine, 112.
Sousa, Bernardino J. de M., Vinegar, 108.
South Australia, Statistics of, 183.
South Australian Com., Reapers, 43.
South Bend Iron Works, Plows, 25.
Souto, A. D. da C., Flax, 120.
Souto, Antonio D. da C., Nuts, 90; Grain, 96.
Souto Maior, Laurenco da Cunha, Wine, 114.
Souza, A. de, Sugar, 73.
Souza, Antonio Joaquim, Corkwood, 90.
Souza, Augusto Pereira d'Abreu, Corn, 93.
Souza, Bento de, Wheat, 69; Matte, 71.
Souza, Conceicao M. A., Preserved fruits, 104.
Souza d'Alte, Francisco R. de, Wines, 116.
Souza, Francisco Jose de, Wine, 129.
Souza- Gueiroz, Baron de. Coffee, 71.
Souza, Gustavo Adolpho Goncalves e, Portugal, 284.
Souza, Hector de Lemos e, Wine, 114.
Souza, J. S. O. e, Corkwood, 89; Grain, 92; Oil, 119.
Souza, Joao Candide de Castro, Wine, 109.
Souza, Joaquim da Silva, Brandy, 109.
Souza, Joaquim Jose de, Wine, 114.
Souza, Jose, Olives, 104.
Souza, Jose d'A., Corn, 92; Oil, 119.
Sousa, Jose Henriques Coelho de, Wine, 114.
Souza, Jose L. R. de, Beans, 97; Linseed, 99; Wine, 114.
Souza, Jose Maximo Coelho J., Wine, 109.
Souza, Julio Cesar, Wines, 114.
Sousa, M. J. M. de, Brandy, 73.
Souza, M. L. de, Cigarettes, 70; Nuts, 90; Grain, 95; Wines, 116; Wool, 121.
Sousa, Manuel Alves de, Olives, 105.
Souzá, Manuel Jose, Wines, 114.
Souza, Manuel Paulo de, Grain, 96.
Souza e Mello, Antonio M. de, Grain, 95.
Souza, P., Coffee, 71.
Souza, P. A. P. Abreu e, Cork-wood, 89; Beans, 99; Wine, 117.
Souza Pinto, F. de G., Olives, 105.
Souza, V., Tobacco, 71.
Soveral, V. da C., Flax, 121.
Souza, Victorino Alves, Grain, 93; Flour, 106.
Soxias y Domenech, J., Maize, 88*h*.
Soyland, L. B., Preserved fish, 61.
Spain, Statistics of, 277
Spanish Nation, Tobacco, 130.
Spankenberg, Schweder, & Co., Furnace, 138.
S. Paulo, Province of, Woods, 68; Paina, plows, 75.
Speakman, Miles, & Co., Machines, 35.
Speakman, Thomas, Models, 36.
Speer, Alexander, & Sons, Plows, 25.
Speer, Alfred, Whisky, 22.
Spence, L., Machines, 32.
Spencer & Roda, E., Esparto grass, 88*hh*
Spiess, Fr., Malt mill, pumps, 138.
Spink, Jas. L., & Co., Mowers, reapers, 29.
Spinnelli, M. K., Vermicelli, 45.
Spitler & Lang, Mashing machine, 139.
Spottorno, B., Wine, 88*y*.
Spreng, Fridolin, Biscuits, 56.
Springfield Mfg. Co., Corn planter, 28.
Stackhouse, Com. T., New South Wales, 180.
Sta. Clara Convent, Sweetmeats, 104.
Stahlschmidt & Co., Wool, 45.
Stampalia, Tommaso, Maraschino, 56.
Staranger Preserving Co., Meats, 62.
Starbuck, Nathan, Ditcher, 36.
Stárico y Ruiz, R., Fig bread, 88*g*; Wine, 88*bb*.
Sta. Rosa de Lima Convent, Preserves, 104.
Star Plate Universal Polishing Powder Co., Polishing powder, 41.

St. Catharina, Prov. of, Coffee, 71.
Stearne, P., Deer heads, 19.
Stechel, F., Oils, 74.
Steele, J., Jute, 75.
Stegman, J., Wool, 87.
Stein, Conrad, Beer, 137.
Stein, G. & L., Liqueurs, 54.
Stein, Hirsh, & Co., Albumen, 19; Hair, 54.
Steinheimer, C. J. B., Wines, 53.
Stella, Cav. Musio, Wine, 66.
Stemnikooski, A., Brandy, etc., 126.
Stenberg, S., Sweden, 240.
Stend Agr. School, Corn, 61; Plows, 62.
Stengel, W., Brandy, 54.
Stenstrom, O. E., Cereals, 59.
Stephany, F., Wheat flour, 125.
Stephen, Alex., & Son, Brooms, 47.
Steuben County Vineyard Ass'n, Wines, 23.
Steubing, H., Ice swimmer, 137.
Stevens, Ansel, Mower, 31.
Stevens, Thomas, Confectionery, 41.
Stewart, A. C., & Co., Angora hair, 43.
Stewart, Isaac T., Tobacco, 17.
Stewart, Ralph, & Co., Spices, 16.
Stiassi, Filippi, Bologna sausages, 64.
Stibbé, H., Essences, 54.
Stibbé, Lz. G., Liquors, bitters, 58.
Stichinsky, S., Wheat, 123; Wool, 126.
St. Louis Cotton Exchange, Raw cotton, 24.
Stoddart, J. C., Calliope, 33.
Stokes, F. N., Planter, 28.
Stokton, J. A., Tree, 152.
Stoll, C., Model, 138; Scales, mill, 138.
Stollwerk Bros., Chocolates, 54.
Stoman, T., Queensland, 195.
Stone & Co., Zoline, 22.
Stone, General, Egypt, 252.
Stone, S. M., & Porter, S., Grain fan, 32.
Storer Wind Engine Co., Windmill, 140.
Storms, J., Elevator, 138.
St. Petersburg Agri. Museum, Cotton, 126.
Strager, C., Queensland, 195.
Strait, H., Potato digger, 29.
Straits Settlement, Statistics of, 192.
Strakosch, Ignaz, Liquor essences, 56.
Stratford, Geo., Oakum, 24.
Stratton & Cullum, Hay-loaders, 31.
Strombeck, Chas. W., Harrow, 25.
Strong, J. E., Farm gate, 46.
Strutt, Arthur I., Wine, 65.
Stryker, Peter J., Excavator, 135.
Stuart, A., New South Wales, 180.
Stuart & Douglass, Oatmeal, 22.
Stuart & Kirkland, Plows, 25.
Studebaker Bros., Wagons, 135.
Sturtevant, E. D., Plants, 152; Ferns, 154.
Stuve, Dr., Germany, 215.
Suarez, R., Ostrich feathers, 84.
Subirach, M., Barley, 88c.
Such, G., Cactus, 151; Ferns, 152; Plants, 154.
Suehnel, Emil J., Cigars, 17.
Suess, A. H., & Sons, Leather, 55.
Sueur, F., jr., Leather, 49.
Sullivan & Burk, Cigars, 17.
Sullivan, Hon. J. F., Victoria, 182.
Suñer, E., Liquor, 88bb.
Superior Mower & Reaper Works, Mower, 29.
Superphosphate Mfg. Co., Fertilizers, 60.
Suppert & Notting, Trees, 159.
Suric, Widow, J. W., Son, & Co., Preserved eatables, 57.
Susuki, S., Tea, 128.
Susumu, A. Kusawa, Japan, 259.
Sutelo & Veiga, Wines, 88z.
Svanoe, Chr., Grain, 61.
Swank, M. J., Cigars, 16.
Sweden, Statistics of, 237.
Sweeney, H. M., Fertilizing machine, 28.
Sweeny, H. W., Great Britain, 173.
Swersedge, Prof., New South Wales, 180.
Swift & White, Fertilizers, 36.
Switzerland, Statistics of, 222.

T.

Taborda, Antonio T. F., Olives, 104.
Taborda, Joao M. C., Cheese, etc., 100.
Taborda, Joao Manuel, Almonds, 92.
Taborda, R. M., Fibres, 75.
Tacconi, Paolo, Sausages, salted meats, 64.
Tacheret, Carlos, Figs, 84.
Tacheret, Emilio, Figs, 84.
Tacho, José Maria da Silva, Wine, 115.
Tadashi Saudo, Japan, 259.
Tagliabue, Chas. J., Brewers' instruments, 139.
Takamura, R., Fibres, 129.
Taldykin, C., Wheat flour, etc., 125.
Talhouet, Marquis de, France, 209.
Tallman, G. W., Elastic stocking, 38.
Talmadge, Dan., Sons, Grain, 16.
Tamamura, Y., Silk, 129.
Tamancao Factory, Crushed rice, 72.
Tamarit, E., Wine, 88bb.
Tamburini, Giuseppe, Torrone, 66.
Tametake Ishida, Japan, 259.
Tanaka, K., Tea, 128.
Tananan, Provincial Board, Sugar, 132.
Tancrede Bros., Charcoal, 52.
Tandberg, Frants, Norwegian cordials, 62.
Tankowski, T., Cordials, 126.
Tanzer Bros., Hops, 55.
Tapadinha, José J., Preserved meats, 103.
Tarbouriech, L., Wines, 50.
Tareira, Henrique Pereira, Portugal, 284.
Targia, Arezzo della, Liquors, 65.
Tarina, Corp. of, Cereals, 88d; Beans, 88i.
Tarnoosky, B., Sugar, 125.
Tarranbae, J., Flour, 73.
Tarussi, Luigi, & Brothers, Wine, 65.
Tasmania, Statistics of, 196.
Tato, M., Wax, 88p.
Tavares, A. J., Almonds, 91; Fruits, 92; Oils, 120.
Tavares, Antonio Bernardo Xavier, Wine, 115.
Tavares, J. Pinto, Coffee, 69.
Tavares, Joao da Silva, Corkwood, 115.
Tavares, José Antonio, Wine, 115.
Tavares, José da C. A., Grain, 94; Wine, 115.
Tavares, P., Coffees, 71.
Tayabas, Provincial Board of, Pitch, 130.
Tayler, D. M., Raw cotton, 24.
Taylor, A. A., Flour, 21.
Taylor, B. C., Grain rake, 29.
Taxis, E. W., Aquarium tank, 19.
Tchuga Asmi, Japan, 259.
Teba, Corporation of, Olive oil, 88ff.
Teferina, D., Wines, 86.
Teixeira, A. de A., Liquors, 73.
Teixeira, C. A., Grain, 92; Oil, 120.
Teixeira, F. L., Nuts, 92; Grain, 94; Flour, 105.
Teixeira, Francisco de Sa, Dried figs, 103.
Teixeira, Francisco Manuel, Wine, 115.
Teixeira, Joao B. Pacheco Wine, 115
Teixeira, Joao Firmino, Wine, 115.
Teixeira, José Luiz, Wine, 115.
Teixeira, M. M., Oil, 120.
Teixeira, Manuel J. X. E., Nuts, 92; Grain, 94.
Tellefsen, Mrs. Rina, Anchovies, 61; Preserved game, 62.
Telles, Manuel Joaquim, Wine, 115.
Temprado, R. F., Coffee, 130.
Temprano, J., Wheat, 88i; Wine, 88cc.
Tendero, G., Wine, 88s.
Tenerife, Provincial Commission of, Cereals 88d; Peas, 88i.
Tennent, J. & R., Bottled ales, 41.
Tenorio, M. R., Beans, 98; Honey, 101.
Tenreiro, Manuel Guerra, Cheese, etc., 100.
Teodoro, S., Cocoa, 131.
Terán, F., Peas, 88k.
Tereul, P., & Bro., Wheat, 88g; Oil, 88gg.
Teréz, I., Olive oil, 88ff.
Terramola, Delfin, Wine vinegar, 85.
Terranova Commillesi, G. B., Wine, 65.
Terrell, J. A., Transparent float, 18.
Terrenoire, La Voulte, & Besseges, Iron, 48.
Terron, J., Sausages, 88p.

Terrero, S. J., Wheat, 88*g*; Peas, 88*k*.
Terrien, sr., Food, 49.
Terrien, P., Sardines, 49.
Testa, U., Tobacco, 71.
Thalin, Waldemar, Punch, 59.
Thams & Co., M., Wood, 61.
Themes, Fortunato de Cerqueira, Wine, 115.
Themudo, E., Oranges, 92; Sweetmeats, 163.
Themudo, Antonio dias, Liquors, 115.
Themudo, Jose Vicente, Preserved meats, 103.
Theotonio, J. M. S., Olives, 104.
Thilenius, G. C., Flour, 22.
Thiry, J., jr., Trellises, 157.
Thomas, F., Silk, 51.
Thomas, John H., & Sons, Rake, 28.
Thome, S., Viscount of Soure, Wine, 109.
Thompson, A., New South Wales, 180.
Thompson, C. B., Broom corn, 16.
Thomson, Hon. Sir E. D., New South Wales, 179.
Thompson, J., New South Wales, 180.
Thompson, Robert, Tropical fruits, 43; Economic plants, 156.
Thompson, S. W., jr., Barrel shooks, 35.
Thomson, W. R., Jamaica, 187.
Thompson, Woodard, Machines, 36.
Thorburn, J. M., & Co., Seeds, 18.
Thoreau, E., & Son, Barley, 48; Wine, 51.
Thorices, B., Wines, 88*x*.
Thorices, F. R., Wines, 88*x*.
Thorn & Bro., Crackers, etc., 24.
Thorne, Chr., Anchovies, 61.
Thorne, Chr. Aug., Preserved meats, 62.
Thornton, G., New South Wales, 180.
Thornton, Hon. Sir Edward, Great Britain, 173.
Thorrand & Co., Cement, 48.
Thurlow, H., Teasels, 18.
Thurston, Hall, & Co., Boston crackers, 24.
Thyssen, C. J. F., Sieve frames, 57.
Tibbles, Geo. N., Engines, 37.
Tierro S., Oil, 120.
Tiffany, O. F., Fruit dryer, 37.
Tillar, Cárlos, Flour, 85.
Timiriasef, Dmitri, Russia, 294.
Tinogasta Sub-commission, Skins, 82.
Tison, José, Sugar, 132.
Tivet, B., Bitters, 51.
Tivollier, A., Paté de foie gras, 49.
Tlgezem Brewery Company, Malt, 126.
Tobacco Growers of Penn's Manor, 17.
Tocha, Jose Rodrigues, Honey, etc., 102.
Toll, Chas. H., Brooms, 34.
Tolmie, Dr., Wheat, 44.
Tolosa, E., & Bro., Tobacco, 88*m*.
Tolosa, F., Wine, 88*v*.
Tomaselli, G., Plows, 67.
Tomé, G., Wool, 88*jj*.
Toopee, Chas., Grate bars, 139.
Tooth, W. B., Queensland, 195.
Topich, Antonio, Preserved fish, 55.
Toribio, A. M., Cereals, 88*g*; Vegetables, 88*k*.
Torkildsen, J., Grain, 61.
Torner, J., Wine, 88*bb*.
Toro, I., Wheat, 79.
Toroiatti, L. di Gio, Harrow, 67.
Torralba, J., Honey, 88*p*.
Torre Ajero, M. & C. de la, Cereals, 88*g*; Madder root, 88*m*.
Torre y Figueroa, A. de la, Wine, 88*w*.
Torre Novas, Count of, Wine, 107.
Torre, P. de la, Wheat, 88*e*.
Torre, R. de la, Cochineal, 88*n*.
Torre y Salto, A. de la, Wine, 88*w*.
Torregon, Antonio Joaquim, Honey, 101.
Torrelli, Lenaf Luigi, Wines, 65.
Torrent, F., Sugar, 88*s*.
Torres, A. A., Flax, 121.
Torres, A. V., Beans, 88*l*.
Torres, Bernardo Jose, Seeds, 98.
Torres, E. N., Fibres, 87.
Torres, G. d'A., Matte, 70.
Torres, J. L., Wine, 88*z*.
Torres, M. A., Olive oil, 88*ff*.
Torres, M. d'A., Matte, 70.
Torres, M. L., Olive oil, 88*ff*.
Torres e Oliveira, H. J. P., Wine, 115.
Torres, Rodrigo Bravo, Olives, etc., 103.
Torrico, M., Peas, 88*j*; Wool, 88*jj*.
Torriselli, Andrea, Liquors, 65.
Torroja, R., Wool, 88*jj*.
Tortades, J. de, Beans, 88*i*.
Tortosa, J., Brandy, 88*s*.
Toshinobu Suzuki Japan, 259.
Tosi, Bellucci, Preserves, 64.
Toval, A., Grits, 88*r*.
Towanda Eureka Mower Co., Mower, etc., 30.
Tower, L. C., Thermometers, 39.
Toyoyasu, Ischihara, Japan, 259.
Tracy, Jose Carlos, Peru, 270.
Trageser, John, Copper work, 139.
Tramontani, D., Honey, 63; Bee-hive, 67.
Transto, Leandro Pinto, Nuts, 91.
Travers, F., Wines, 53.
Traverse, Marquis A. de L., Cordials, etc., 126.
Traverso, J., Wheat, 77.
Travis, A. B., Horse wheat hoe, 26.
Travis, M. W., Instruments, 139.
Treat, J. A., Boiler, 35; Gate, 36.
Tréfousse & Co., Dyes, 49.
Trell y Chacon, M. del, Almonds, 88*a*; Wines, 88*t*; Esparto grass, 88*ii*.
Treloar, Guillermo A., Carob paste, 84.
Treman, Valentine, & Green, Sheller, 30.
Trendell, A. J. R., Great Britain, 173.
Trias y Travesa, J., Vegetables, 88*p*.
Tribula, Eleuterio, Oil, 132.
Tricourt, A., Wine machines, 52.
Trigo, A. M. de S., Almonds, 91; Sweetmeats, 193.
Trigo, Jose Antonio Horta da, Grain, 94; Wine, 115.
Trincao, Romao Antunes, Nuts, 91.
Trindade, Alfredo, Figs, 103.
Trinidad, Statistics of, 198.
Trinoao, Roman A. L., Dried figs, etc., 105.
Tripodi, Silvino, Rice, 72.
Triste, J. M. d'Araujo, Cloves, 69.
Troia, Alfri, Paste for soup, 64.
Troilius, C. O., Sweden, 240.
Trommer Extract of Malt Co., Malt, 23.
Troop, O. V., & Co., Vinegar, 45.
Trottman, Ott., Cooler, 138.
Trowbridge, W. H., Tobacco, 16.
Troya, I., Wine, 88*u*.
Tschopp, Albert, Hay-rake, 29.
Tschudi, Dr. F. de, Switzerland, 225.
Tschurtschenthaler, A., Conserved fruits, 55.
Tsunetaro Yamao, Japan, 259.
Tubbs, Hoyt, Machines, 32.
Tubular Barrow & Truck Co., Barrows, 27.
Tucci, Savo Benedetto, Wine, 66.
Tuchfarber, F., & Co., Show cards, 138.
Tucker, J., Bermudas, 190.
Tucker, T. E. C., Wool, 87.
Tucuman, Provincial Commission of, Woods, 76; Corn, rice, wheat, 80; Skins, 83.
Tula, N., Seed, 79.
Tuldahl, A. H., Pale ale, 59.
Tunis, Statistics of, 253.
Turkey, Statistics of, 286.
Turner, J., Mfg. Co., Sauce, 20.
Turpin & Bro., Plug tobacco, 17.
Tygert, J. E., & Co, Ground bone, 36.
Tyler, Geo. H., Hops, 136.
Tyrrell, J. F., & Co., Oatmeal, 21.
Tzelikoff, T., Oils, etc., 126.
Tzytzoorin, T., Tobacco, 124.

U.

Ubach de Colon, J., Dyes, 77.
Ubatuba, D. M. P. S., Tallow, 72.
Ubatuba, Dr., Condensed milk, 72.
Uffredugi, Giacomo, Wine, 66.
Uhlman, Simon, Hops, 136.
Ulex, G. F., Bitters, 54.

Ulich, G., Albumen, 124.
Uliengo, G., Butter machine, 67.
Ullan, R., Olive oil, 88*ff*.
Ullander, A., Punch, 60.
Ulrich, W. D., Ship biscuit, 58.
Underberg, Albrecht H., Bitters, 54.
Underwood, W., & Co., Canned meats, 20.
Union Hardware Co., Beer coolers, 138.
Union Machine Works, Malt mill, 138.
United States Fertilizing & Chemical Co., Fertilizers, 36.
United States, Statistics of, 163.
United Wine Growers, Wines, 22.
Unsué, M., Wool, 87.
Unzué, S., Wheat, 77.
Upmann, H., & Co., Tobacco, 88*m*.
Upsala Agricultural Society, Cereals, 59.
Upton, Elijah W., Glue, 19.
Upton, Geo., Glue in sheets, 19.
Urbana Wine Co., Champagne, 22.
Urig, J., Beer, 137.
Urmenata, F. de, Brandy, 88*v*.
Uruburu, J., Olive oil, 88*ee*.
Uruguay & Parana Com., Cereals, 79.
U. S. Agrl. Dept., Plants, 152.
U. S. Hullers' Oat Co., Oats, etc., 16.
U. S. Wind Engine & Pump Co., Windmills, 38; Mills, 140.
Usano, M., Marchpane, 88*r*.

V.

Vaamonde, R. M., Nuts, 88*a*; Maize, 88*f*.
Vaca, F. C. de, Peas, 88*l*; Wine, 88*cc*.
Vaca, J., Ham, 88*p*.
Vaillard, H., Cheese, 82.
Vaivas, Carlos, Wheat, 80.
Val, M. H. del, Olive oil, 88*hh*.
Valcárcel, T. P., Peas, 88*k*.
Valckenberg, P. J., Wines, 53.
Valdeavellano, J. G., Wool, 88*jj*.
Valdecanas, Count of, Olive oil, 88*ee*.
Valdefresno, Corporation of, Cereals, 88*e*; Vegetables, 88*f*; Wine, 88*x*.
Valdemimbre, Corporation of, Wine, 88*x*.
Valdes, E. & C., Woods, 76; Barley, 78; Rat, 81; Tongues, 85; Wool, 87.
Valdez, A. de C., Grain, 93; Oil, 119.
Valdez, Emiliano, Corn, 78; Hides, 82.
Valdovi, R. G., Maize, 88*h*; Olive oil, 88*hh*.
Valein, M. d'Aguiar, Coffee, 70.
Valencia, J., Wines, 88*z*.
Valencia National Manufactory of Tobacco, Tobacco, 88*m*.
Valencia, Philadelphia Commission of, Hemp, 88*ii*; Implements, 88*jj*.
Valencia, Provincial Commission of, Harness appendages, 88*jj*.
Valencia, Society of Agriculture of, Walnuts, 88*c*; Cereals, 88*h*; Vegetables, 88*l*; Licorice root, 88*n*; Seeds, 88*u*; Fruits, 88*r*; Esparto grass, 88*ii*.
Valente, Antonio Joaquim, Grain, 93.
Valente, José Justiniano d'Oliveira, Woods, 90; Grain, 94, 96; Seeds, 99.
Valenti, J., Wine, 88*u*.
Valentim, José, Preserved meats, 103.
Valenzuela, J. V., Wine, 88*w*.
Valera, J. M., Wine, 88*w*.
Valero, F., Port wine, 88*aa*.
Valero, J., Wine, 88*bb*.
Valiente, E., Olive oil, 88*ee*.
Valiente, Enrique, Peru, 270.
Valk, J. van der, & Co., Gin, 58.
Valladares, Pedro d'Ordaz, Cheese, oil, 99.
Valladolid, Board of Agriculture of, Wine, 88*cc*.
Valle de Oro, Corporation of, Wax, 88*p*.
Valle, J. M., Wine, 88*w*.
Valle, José de Seixas do, Wine, 109.
Valle, Manuel de Sousa Dias, Wine, 109.
Valle, R. J. F., Rice, 69; Cotton, 74.
Valle, S., & Co., Tobacco, 88*m*.
Valle y Villar, L. del, Wine, 88*z*.
Vallejo, J., Seed, 88*g*.
Vallejo, R., Wheat, 88*d*; Beans, 88*j*.
Vallier, J., Wine, 88*cc*; Olive oil, 88*hh*.
Valls, P. & V., Wines, etc., 88*t*.
Valmaceda, E., Gogo, 130.
Valmorisco, P. N., Olive oil, 88*ee*.
Valtueña, Corporation of, Saffron, 88*m*.
Valverde del Camino, Corporation of, Cereals, 88*e*; Vegetables, 88*j*; Wine, 88*x*.
Valverde, F., Wheat, 88*d*; Olive oil, 88*ee*.
Van Bree, J., Belgium, 229.
Van Casteel, A. T., Flax, 58.
Vander-Berg, Tobacco, 70.
Vanderbilt, Henry S., Lifting jack, 33.
Vandiver Corn Planter Co., Corn planter, 28.
Van Dulken, Weiland, & Co., Gin, etc., 58.
Van Marken, J. C., jr., Corn, 58.
Van Vranken, J. B., Teasels set in frame, 18.
Varale, Antonio, Dressed hides, 63.
Varaskin, Demetrius, & Sanin, Spirits, 126.
Varela, M. D., Wine, 88*y*.
Varella, J. G., jr., Oil, 119.
Vargas, A. A., Corkwood, 90; Grain, 93.
Vargas, J. R., Wheat, 88*e*.
Vargas, S., Wines, 88*z*.
Varsea & Coelho, Preserved meats, 103.
Vasconcellos, Adelino d'A., Wines, 106, 109.
Vasconcellos, Antonio de, Wine, 109.
Vasconcellos, Augusto C. C., Wine, 115.
Vasconcellos, B. d'A. C. T. de, Wool, 122.
Vasconcellos, Bento M. P., Wine, 115.
Vasconcellos, Catharina M. A., Corkwood, 90; Honey, etc., 102.
Vasconcellos, Mem Rodrigues de, Portugal, 285.
Vasconcellos, Duarte, Hops, 97, 99.
Vasconcellos, Ezechiel Augusto de, Grain, 93.
Vasconcellos, F. M. de, Oil, 119.
Vasconcellos, F. P. de, Preserved vegetables, 72; Wine, 73, 74.
Vasconcellos, Francisco P. C., Wine, 115.
Vasconcellos, J. G. de, Woods, 90; Wine, 109.
Vasconcellos, M. S., Nuts, 91; Peas, 98; Oil, 119.
Vasella, José, jr., Grain, 95.
Vas Freire, José S. T., Wine, 110.
Vasquez, B., Honey, 88*p*; Figs, 88*q*.
Vasquez, F., Peas, 88*j*; Wine, 88*x*.
Vasquez, J., Liquors, 88*y*; Wool, 88*jj*.
Vasquez, J. L., Maize, 88*f*.
Vasquez, Lucrecio, Achala cheese, 82; Wool, 88.
Vasquez y Rodriguez, Cereals, 88*g*.
Vassallo, José Baptista, Bleached wax, 101.
Vassea & Coelho, Oil, 119.
Vassilief, N., Flax, 126.
Vassiltchikoff, Prince Victor, Grain, 123; Grass seeds, 124.
Vanzeller, Constantino, Portugal, 285.
Vaz, Eduardo Augusto da Cruz, Corkwood, 90; Grain, 95; Preserved meats, 105.
Vaz Preto Geraldez, Manuel Louza, Corkwood, 89; Grain, 96; Cheese, 100.
Vecinos, I., Cereals, 88*i*.
Veenhoven, Schuringa, & Co., Potato flour, 58.
Vega de Infanzones, Corporation of, Cereals, 88*e*; Beans, 88*j*; Flax, 88*ii*.
Vega, G., Corn, 79.
Vega Grande, Count of, Maize, 88*d*; Beans, 88*i*; Flour, 88*r*; Wine, 88*v*.
Vega, L. O., Flour, 88*r*.
Vega, M. P. de la, Butter, 88*o*.
Vega y Lopez, L., Olive oil, 88*ee*.
Vega y Tejada, E. de la, Wines, 88*u*.
Vegüer y Nagüer, J., Honey, 88*p*; Sugar, 88*s*.
Veiga, Francisco Antonio, Grain, 96.
Veiga, J. A. da, Oil, 74.
Veiga, J. d'A., Wool, 122.
Veiga, José da Cunha Costa, Wine, 115.
Veiga, José Mendes, Wood dyes, 90; Almonds, 91; Seeds, 97.
Veiga, Maria C. de N., Potato flour, 115.
Veiga, Richardo Antonio da, Wine, 109.

Veiga, Tobacco, 71.
Veigas, Agostinho T. dos S., Cheese, etc., 100.
Veira, Manuel, Honey, 101.
Veitch, J., & Sons, Hollies, 156.
Veja de Armijo, Marquis of, Oranges, 88*a*.
Velarde, A., Coffee, 131.
Velarde, J. E., Olive oil, 88*ff*.
Velasco, B. D., Wheat, 88*d*.
Velasco, C. S., Pepper, 88*m*.
Velasco, F., Wheat, 88*h*.
Velasco, M., Honey, 88*p*; Wine, 88*y*; Olive oil, 88*ff*.
Velasco, R., Peas, 88*k*; Olive oil, 88*gg*.
Velez, A., Wine, 86.
Velho, Francisco da Rosa, Wine, 110.
Velho, José Bernardino Bringle, Grain, 92.
Velles, Luis Nunes de, Brandy, 110.
Vellez, P. D., Alcoholic drinks, 73.
Velloso, Antonio Guedes, Wine, 110.
Venegas, J., Wheat, 88*c*; Beans, 88*i*.
Ventalló y Llobateras, D., Wines, 88*u*.
Ventura, José G. da C., Corkwood, 89.
Ventura y Sampere, A., Liquors, etc., 88*t*.
Vera, Matilde, Pigeons stuffed, 80.
Vera, Rosade, Nito, 133.
Verdier, C., Roses, 157.
Verdier, E., Gladiolus, 157.
Verdu, J., Seeds, 88*n*.
Verdú, M., Wine, 88*t*.
Verdú, R. P., Vinegar, etc., 88*t*; Oil, 88*dd*.
Verdu y Cortés, V., Vinegar, 88*t*.
Verdu y Perez, J., Almonds, 88*a*; Vegetables, 88*i*; Figs, 88*p*; Wines, 88*t*; Olive oil, 88*dd*.
Verdu y Perez, L., Wines, 88*t*.
Verdú y Rico, M., Vinegar, 88*t*.
Verekha, P., Trees, etc., 123.
Verevitin, A., Wheat flour, 125.
Vergara, A., Swan skin, 82.
Vergueiro & Co., Coffee, 71.
Vergueiro, J., Coffee, 70.
Vermont Farm Machine Co., Rake, 31; Evaporator, 37.
Vernis, J., Preserved meats, 88*p*.
Verweij, N., & Co., Sugar of grape, 58.
Vessot, J. & S., Harrow, 46.
Vetigudino, Corporation of, Wheat, 88*g*.
Vianna, Manuel de C. R., Portugal, 284.
Vianna, O., Aguardente, 74.
Vianna, P., Sugar, 73.
Vianna, President of the Com. of, Fish, 104.
Vicat, J. H., Pickles, 49.
Vicente, P., & Co., Sardines, 88*o*.
Vicondessa, d'Oleiros, Cheese, etc., 100.
Victoria, H., Cocoons, 88.
Victoria, Statistics of, 181.
Victoria Sub-commission, Skins, 83.
Victoricá, Julio, Argentine Rep., 265.
Victorino, José, Ham, 103.
Vidal, Augustin, Wheat, 78.
Vidal, J. C., Wine, 88*t*.
Vidal, Marco A., Woods for dyeing, 77; Red corn, white wheat, 78.
Vidal y Bas, B., Beans, 88*l*.
Vidamrel, J. J. da, Preserved fish, 104.
Vidart, J. A., Hides, 83.
Vidaur, A. L., Insects, 88*n*.
Videla, Victor, Syrup, etc., 84; Wood, 76.
Vidial, Antonio Jose Rodrigues, Wine, 116.
Vieia, Francisco de Semas, Honey, 101.
Vieira, A. J., Oil, 119, 120.
Vieira, Ant., Coffee, 71.
Vieira, Bernardo de Campos, Wines, 115.
Vieira, Francisco de Lemos Cunha, Grain, 92.
Vieira, José Augusto, Honey, wax, 101.
Vieira, Manuel Pinto da Silva, Grain, 94.
Vieira, P. M., Flax, 121.
Vieira, Venancio Dias de Figueira, Beans, 98; Wine, 109.
Viela, R. T. de, Barley, 88*e*.
Viesca, Marquis of, Almonds, 88*b*.
Vignolles, Henry, Preserved meats, patés, 84.
Vigueres y Monllio, F., Almonds, 88*b*.
Vila, F., Rye, 88*f*; Potatoes, 88*m*; Wines, 88*z*.
Vila, J., Wheat, 88*c*.
Vilanova y Piera, P., Wines, 88*v*.
Vilaret, A., Wine, 88*w*.
Vilarinho & Nephew, Corks, 90.
Vilches & Jover, Wines, etc., 88*t*.
Vilhena, Agostinho de, Wine, 109.
Vilhena, Barbosa Arthur Peres de, Wine, 110.
Viliani, Dante, Liquors, 66.
Villa Alcazar, Marquis of, Flour, 88*r*.
Villa, L., Sugar-cane juice, 86.
Villaboa, V., Wine, 88*cc*.
Villafane, N., Corn, 79.
Villafanha, Antonio de, Wines, 109, 114.
Villa-Franca, Baron of, Wood, 68; Sugar, 73; Paina, 75.
Villahermosa, M., Cheese, 88*o*.
Villalba y Sotomayor, M., Wine, 88*w*.
Villalôn y Torres, Cereals, 88*g*.
Villalta y Uribe, A. F., Wheat, 88*e*; Cocoons, 88*jj*.
Villalva, A. T., Olive oil, 88*ff*.
Villalva, B., Wine, 88*cc*; Hemp, *ii*.
Villamarzo, Tiburcio, Fibres, 133.
Villanueva, Felipe de, Wheat, 88*d*.
Villar, Coffee, 81.
Villar de Maya, Corporation of, Cereals, 88*h*.
Villar, F. M. del, Projects, 88*jj*.
Villar, M., Wine, 88*bb*.
Villar, M. P., Flour, 106; Wool, 121.
Villar, S., Seeds, 76.
Villaranda, J. R., Olive oil, 88*gg*.
Villaranea, R. M., Olive oil, 88*gg*.
Villarinho, Viscount of, Wines, 116.
Villas, Manuel Pereira, Grain, 96.
Villaturiel, Corporation of, Vegetables, 88*f*; Wine, 88*x*; Flax, 88*ii*.
Villaverde, R., Wine, 88*cc*.
Villegas, V., Olive oil, 88*dd*.
Villena y Para, S., Brandy, 88*v*.
Villores, Marquis of, Wines, 88*v*.
Vilmorin, A., & Co., Seeds, 157.
Vinaisca, Corporation of, Wheat, 88*e*; Wine, 88*x*; Olive oil, 88*ff*.
Viñas, A., Almonds, 88*b*.
Viñas y Pamies, J., Wine, 88*aa*.
Vinaz, J. M. G., Peas, 88*l*.
Vintro y Vila, A., Yeast, 88*cc*
Vinva de Manuel, Pedro do, Wax, 101.
Vinva, Jorge, & Sons, Almonds, 91; Brandy, 116.
Viotti, Cigarettes, 71; Peach liquor, 74.
Virgens, B. da, Sugar, 73.
Virgens, M. B. das, Sugar, 73.
Virguli, P., Cereals, 88*h*; Vegetables, 88*l*; Seeds, 88*n*.
Visa, A., Sausages, 88*p*.
Visa, A. B., Milk, 88*o*; Nougat, 88*r*.
Viscardi, Geremia, Preserved fruits, 64.
Viscount of Alcacer do Sal, Grain, 93.
Viscount of Guedes, Honey, etc., 102.
Visetto, Francisco Manuel, Carob, 98.
Visetto, José Bernardo, Almonds, 91.
Viseu, Central Com. of the Dist. of, Wool, 122.
Viseu, Henriques Nunes, Wine, 114.
Visser, J., Wax, 57; White mead, 58.
Vitale, Tommaso, Liquor, 65.
Viti, Chevalier A. M., Italy, 249.
Vitiello & Torrese, Wines, 65.
Vitoria School of Agriculture, Cereals, 88*e*; Vegetables, 88*i*.
Vittone, Domenico, Vermouth, 66.
Viuva, Chaves, & Son, Leather, 100.
Viuva, Machado, & Sons, Hides, 101.
Viuva, Pevelin & Sons, Wine, 110.
Viuva, Pinto, & Son, Wine, 110.
Viva, Barreto C., Wines, 116.
Vives y Aspiroz, R., Raisins, 88*r*.
Viza, A., Vinegar, 88*t*.
Vliet, A. van, Cheese, butter, 57.
Vogt, Henry, & Bro., Boiler, 139.
Voigt, E. W., Beer, 137.
Volck, F., Germany, 215.
Volinia Farmers' Club, Farm products, 17.
Von der Horst, J. H., Beer, 137.

Von Essen, H. H., Scissors, 158.
Von Holloben, Germany, 215.
Von Nostitz, Walwitz, Germany, 215.
Von Spitzenburg, Baron, 215.
Von Zedlitz, Baron, Germany, 215.
Vornberger, J. M., Wines, 53.
Votureava, Commission, 75.
Votuvera, Commission of, Wine, 73.
Votuverava, District of, Medicinal plants, 69.
Vuva, Marques, & Sons, Grain, 96.
Vyeira, M. L., Oil, 74.
Vyeira, S. A., Oil, 74.

W.

Waag & Son, Mustard seed, 124, 125.
Wackichiro, Tawara, Japan, 259.
Wadsworth, J. P., Flour, 45.
Wagner, C., Tree seeds, 123.
Wagoner, Elijah, Feed cutter, 33.
Wahl Bros., Glue, 18; Gelatine, etc., 19.
Waile, S., Cigarettes, 81.
Wain, N., Hops, 44.
Waite, S. J., Mfg. Co., Breast drill, etc., 27.
Wakeman, R., Presses, 32, 34.
Walcker, W., Seats, 157.
Walker, J., & Co., Ale, porter, 136.
Walker, James R., Iron plow, 26.
Walker, M., & Sons, Iron railing, 154.
Wallace, John, Stuffed animals, 18.
Wallace, Sam'l J., Straddle-row cultivator, 25.
Wallés, E., Almonds, 88*a*.
Wallis, A. B., Ale, 60.
Wallis, W., New South Wales, 180.
Walsh, B., Pork, 45.
Walton, S., Garden and field cultivator, 26.
Walton, Whann, & Co., Fertilizers, 36.
Wandelt, S., Tubs, 138.
Wanderley, Barros, Sugar, 73.
Ward, Henry A., Casts, 18; Camel, 38.
Ward, N., & Co., Cattle bones, etc., 19.
Ward, Samuel B., Plow-rake, 25.
Warder, Minchell, & Co., Reapers, 28.
Wardle, George F., Plug tobacco, 16.
Ward's Fertilizer Co., Harrows, 26; Odorless fertilizers, 36.
Warmer, Sigmund, Drain pipes, 56.
Warner, J., Boiler, 152.
Warner, Rhodes, & Co., Canned fruits, 19.
Warsaw Sugar Manufacturing Co., 125.
Warschafsky, A., Grain, 123; Wool, 126.
Warschawsky, Leon, Russia, 294.
Wart, Carlos de, Flour, 85.
Wasor, J. Cathcart, Wools, 42.
Wassiltchikoff, Prince Victor, Sugar, 125.
Wastfelt, Carl C., Rennet, 59.
Watanabe, M., Tea, 128.
Waterer, A., Rhododendrons, 156.
Waterhouse, F. G., South Australia, 184.
Waterhouse, Joseph, Ales, 45.
Watkins, W. M. & C., Tobacco, 17.
Watson, J., New South Wales, 180.
Watson, John, Plows, 46.
Watt, J. B., New South Wales, 180.
Wayne Agricultural Co., Cultivators, 26.
Weatherston, N., & Co., Grain, 44; Flour, 45.
Weaver, J. R., Confectionery, 23.
Webb, Dr. F. T., Bahamas, 188.
Weches, S., Wine, 88*cc*.
Wedding, Dr., Germany, 215.
Wehn, G. H., Artificial stone, 138.
Wehr, C. Werk, & Son, Wines, 22.
Weidenmann, J., Survey, 153.
Weightman, W., Plants, 152.
Weikel & Smith Spice Co., Spices, 16.
Weilbacher & Loewi, Hops, 136.
Weilbacher, P., Hop kiln, 138.
Weinhagen, H., Apparatus, 35.
Weiss, C. A., Chiccory, 124.
Weissmann, David, & Isaac Leib, Sounding-board wood, 55.
Welch, H. P., Tasmania, 198.
Welding, E., Saucers, 157.
Wellock, J., & Co., Water-proof material, 41.
Wells, French, & Co., Potato digger, 29.
Wells, Hope, & Co., Metallic signs, 139.
Wells, W., Saucers, 157.
Welsh Bros., Wines, 110.
Weltz, H., Beer, etc., 54.
Wenkenbach, W., & Sons, Beer wagon, 135.
Wenkenbach, W. L., Beer wagon, 138.
Wentworth, F. W., New South Wales, 180.
West Grove Manufacturing Co., Atomizer, 33.
West Jersey Land & Cranberry Co., 15.
West Virginia, State of, Forest products, 15; Grasses, etc., 16; Hemp, flax, 24.
Westberg, N., Reaping machine, 127.
Westerbottens Agr. Society, Cereals, 59.
Westergaard, L., Netherlands, 234; Sweden, 240.
Western N. Carolina Land Co., Cereals, 17.
Western Washington Industrial Association, Grains, 16.
Westfall, D. B., Potato digger, 31.
Westinghouse, G., & Co., Thresher, 33.
Westmanlands Agr. Society, Cereals, 59.
Wetterhahn, G., Wines, 54.
Weyl & Co., Mineral waters, 48.
Wharry, John R., Fruit slicer, 33.
Wharton, J., Eucalyptus, 151.
Wheeler & Mellick Co., Horse-rake, etc., 27.
Wheeler, W. F., Sprinkler, 152.
Wheeler, W. G. B., Isinglass, 136.
Wheelock, Jerome, Engine, 39.
White Elk Vineyards, Wines, 22.
White, Geo. E., Superphosphates, 36.
White, Hon. James, New South Wales, 180.
White, Jno. G., & Co., Barley, malt, 136; Malt mill, 137.
White Mountain Freezer Co., Freezers, 35.
White, R. P., Malt, barley, 136.
White's N. Y. Malt House, Kiln flooring, etc., carts, 138.
Whiteley, Fassler, & Kelly, Reapers, 29.
Whitemore, D. H., Machines, 34.
Whitman & Miles Mfg. Co., Knives, 29.
Whitman, S. F., & Son, Confectionery, 23.
Whiton, David E., Mowing machine, 29.
Whittemore Bros., Hay-rake, etc., 29.
Wickberg, C., Grain, 123.
Wickel, Y., Punch, 126.
Widegren, H., Sweden, 240.
Widmark, F., Sweden, 240.
Wiedenbrug, H. T., Liqueurs, 54.
Wikstrom, Z., Preserved vegetables, 59.
Wilcox, W. J., & Co., Refined leaf lard, 19.
Wilder, S. G., Hawaii, 261.
Wilkens, H., & Co., Smoking tobacco, 17.
Wilkens, Theodore, Hair moss, 24.
Wilkins, Robert, Rye grass, 42.
Wilkins, William, & Co., Bristles, etc., 24.
Wilkinson, C. L., New South Wales, 180.
Wilkinson, George, Plows, 46.
Wilkinson, William, & Sons, Shears, 41.
Willi, Dr., Switzerland, 225.
Williams, B. S., Plants, 156.
Williams Bros., Fertilizer, grain sower, 28.
Williams, J., New South Wales, 180.
Williams, John, Fruits, 21; Model, 37.
Williams, R. H., Quercitron bark, 15.
Williams, T. C., & Co., Plug tobacco, 17.
Williamson, A. & H. A., Models, 151.
Willing & Co., Racking cock, 139.
Willoughby, James D., Grain drill, 28.
Wills, Arthur Winkler, Hoes, 41.
Wilmot, Hon. R. D., Canada, 204.
Wilson, Brothers, & Co., Fodder cutter, 34.
Wilson, C. H., Geraniums, 153.
Wilson, Chas., Aloes, 45.
Wilson, Childs, & Co., Wagons, 135.
Wilson, J. G., Boiler, 152.
Wilson, Jas., Oatmeal, 44.
Wilson Packing Co., Meats, 19.
Wilson & Piper, Harrow, 46.
Wilson, Thos., Fanning mill, 46.
Wilson, Walter G., & Co., Crackers, 23.

Wilson, Wm. C., Plants, 154.
Wimpfheimer, David, Apparatus, 37.
Winchester & Partridge, Wagons, 135.
Windeyer, W. C., New South Wales, 180.
Windrim, J. H., Architect, 9.
Winkel & Rothenbach, Wines, 53.
Winter, F., Glue, 53.
Wirmond, E. E., Insects, 71; Wool, 75.
Wischnegradsky, Ican, Russia, 294.
Wisconsin, State of, Forest products, 15; Agricultural products, 16.
Wisdom, R., New South Wales, 180.
Wishaw, A., Flax, 126.
Wisker, Aug., Model of brewery, 138.
Wisner, J. E., Self-discharging rake, 29.
Withington, Cooley, & Co., Hoes, etc., 26.
Wittemann, P., Wines, 53.
Woehrle, Chas., Buckets, 138.
Woelmont, Baron G. de, Belgium, 228.
Woerle, W., Ice swimmer, 138.
Wolff, M. B., Flour, 57.
Wolffen, W., New South Wales, 180.
Wolowski, Mr., France, 209.
Womura, I., Tea, 128.
Wood, Hon. S. C., Canada, 204.
Wood, Hon. T. L., Bermudas, 190.
Wood, Julius J., & Co., Starch, etc., 22.
Wood, O. K., & Co., Machine, 33.
Wood, Robert, & Co., Bronze work, 38.
Wood, W. D., Wheat, 42.
Wood, Walter A., Droppers, 28.
Woodrell, W., Beef, 45.
Woods, J., New South Wales, 180.
Woods, Perry, & Co., Lumber, 15.
Worontzoff, Prince Simon, Wine, 125.
Worrall, E. Penn, Beehive, 38.
Wretzl, Michael, Wine, 56.
Wriedt, Chr., Beer, 62.
Wright, Herbert, & Co., Pale ale, 40.
Wright, James W., Grain harvester, 29.
Wright, Joshua, & Son, Minced meat, 19.
Wright Spring Co., Wagon springs, 135.
Wright, T. A., Great Britain, 173.
Wurffbain, G., Roots, 77; Cotton, 87.
Wyckoff & McDonald, Plow, 26.
Wynand, Fockink, Fine liquors, 58.
Wyndham, George, Wines, 42.
Wyndham, Wadham, Wines, 42.

X.

Xavier, A. de Paula, Matte, 76; Honey, 72.
Xavier, A. P., Honey wine, 73.
Xavier, D. Leocadia de P., Wax, 72.
Xavier, Francisco de Paulo, Grain, 94.
Xavier, J. Ribeiro, Tea, 70.
Xavier, M. C., Oil, 120.

Y.

Yacovleff, J., Preserved greens, etc., 124.
Yanagida, K., Tea, 128.
Yañez, F. V., Chestnuts, 88*a*.
Yaniz, A., Wool, 88*jj*.
Ybanez, Aurtro, Mexico, 274.
Yeandle, Thomas, Plows, 46.
Yebihara, Y., Tea, 128.
Yeiga, F. A. da, Pharmaceutical products, 75.
Yermakoff, Nicolas, Russia, 294.
Yoosefow Sugar M'g. Co., Sugar, 125.
Yoshio, Tanaka, Japan, 259.
Yoshitaka, Ishii, Japan, 259.
Yosso, Joas Jose da Matto, Grain, 92.
Young, Levi, Lumber, 134.
Yuengling & Sons, Ale, etc., 136.
Yuille, Andrew, Ess. of coffee, 40.
Yuquete, J. de O., Oil, 120.
Yvanez, Sr. Don Adolfo, Chili, 267.

Z.

Zablotskf-Dessetoysky, P., Grain, 124.
Zablotsky, D. P., Oil, 126.
Zaforta, J. B., Carobs, 88*l*.
Zaforteza, J. B., Oils, 88*dd*.
Zagallo, Antonio Carlos, Corkwood, 90.
Zahrzevsky, F., Grain, 124.
Zais, W., Wines, 53.
Zaitzeff, S., Cakes, etc., 126.
Zallas y Trigueros, M., Olive oil, 88*gg*.
Zamacona, Manuel M. da, Mexico, 274.
Zambrano, J. A., Wines, 88*x*; Olive oil, 88*ff*.
Zamora, F., Olive oil, 88*hh*.
Zamora, P., Olive oil, 88*ee*.
Zane, Norney, & Co., Fruit-preserver, 20.
Zanetti, Guido, Sausages, salted meats, 64.
Zannini & Galliani, Liquors, 66.
Zapevaloff, A., Garden plants, etc., 124.
Zappoli Brothers, Bologna sausages, etc., 64.
Zarracina, T., Cider, 88*z*.
Zavalla, L., Wool, 88.
Zavalla, Pedro J., Wine, 85.
Zayas y Trigueros, M., Wool, 88*jj*.
Zeeland Association for Encouragement of Agriculture and Cattle Breeding, 57.
Zeller, Chas., Plants, 154.
Zeni, Niccolo, Cordial, 65.
Zerpa, J., Wine, 88*z*.
Zeschks, L., Rags, 56.
Ziegle, A., Beer, 137.
Zierotin, Countess Gabriel von, Bushes, 55.
Zigliani, Cammillo, Vermouth, 65.
Zimmerman, Henry O. R., Insects, 18.
Zinsser, Wm., & Co., Pumps, 139.
Zironi, Giovanni Tiorano, Salted meats, 64.
Zolezi, Nicolas, Snuff, cigars, 81.
Zoller, A., Barrel washer, etc., 137.
Zoological Society, Fern, 152.
Zorilla, B., Skin, 83.
Zubia, I., Sherry, 88*y*; Olive oil, 88*ff*.
Zubiaurre, O., Wool, 87.
Zugadi, Nicolas, Oils, 132; Nito, 133.
Zuijlekom, Van Lebert, & Co., Gin, 58.
Zulueta, J., Brandy, 88*cc*.
Zunzunegui, A., Wine, 88*cc*.
Zurbano, J., Wine, 88*c*.
Zyp, Baron W. G. B. van de, Netherlands, 234.
Zyzykin, M. Y., Bros., Cordials, etc., 126.

C. B. KEOGH & CO.,

MANUFACTURERS OF

DOORS,

Sashes, Blinds, Mouldings,

CUT GLASS, ETC.,

254 and 256 Canal Street,

NEW YORK.

Our Illustrated Catalogue will be sent to any one on receipt of ten cents for postage.

LEHIGH VALLEY RAIL ROAD

THE SHORT AND FAVORITE ROUTE
TO ALL POINTS IN

Eastern and Northern Pennsylvania

THE MAHANOY, HAZLETON AND WYOMING COAL FIELDS,
CENTRAL AND WESTERN NEW YORK,

CANADA AND THE NORTH AND WEST

Pullman Sleeping Coaches, Elegant Drawing-room Coaches, and First-class Day Cars run from Philadelphia through, WITHOUT CHANGE, to

Mauch Chunk, Wilkesbarre, Elmira, Buffalo,
AND
NIAGARA FALLS.

All trains are fully equipped with the celebrated Westinghouse Automatic Brake and Miller Safety Platform.

For full information, inquire at principal Ticket Office,

732 Chestnut Street (cor. Eighth).

DEPOTS at North Penna. R. R., Cor. Third and Berks Sts., and at Phila. & Reading R. R., Cor. Ninth and Green Sts.

ROBT. H. SAYRE, Supt. and Eng., Bethlehem, Pa.

H.W. JOHNS' PATENT

ASBESTOS MATERIALS

Asbestos is a mineral possessing fibres like Silk or Flax, and cannot be destroyed by fire. It is found abundantly in various parts of this and other countries. Its uses are patented for the following and other materials for structural and mechanical purposes.

Roofing—Any color, for steep or flat roofs, in rolls ready for use.
Paints—All colors, ready for use, unexcelled in richness of color and unequaled in durability.
Steam Pipe and Boiler Coverings—The most effective non-conductors in use.
Steam Packing—Flat and round, all sizes—Indestructible, Self-lubricating.
Roof Coating for old tin, felt, and shingle roofs. **Fireproof Coating** for wooden buildings, boiler rooms, shingle roofs, etc. **Roof Paint** for tin roofs, iron and wood work. **Cements** for steam and gas fittings, repairing leaky roofs, etc. **Vermin-proof Lining** for carpets, deadening floors, sheathing felts, etc., etc.

All of these materials are prepared ready for use, and can be easily applied by any one. Liberal inducements to General Merchants, Dealers, *and large consumers*. ☞ Send for Samples, Illustrated Pamphlets, Price Lists, etc.

H. W. JOHNS, 87 Maiden Lane, N. Y.

ESTABLISHED 1858. *Patentee and Manufacturer.*

☞ **A full line of Asbestos Materials can be seen and full information obtained at Section No. F 9, Columns 64-65, Machinery Hall.**

The following, among thousands of well-known Manufacturers and others, have our Goods in use:

Denison Paper Manuf'g Co., Mechanic Falls, Maine. Robinson Manuf'g Co., Woolen Goods Oxford, Maine. Hon. E. A. Straw (Amoskeag Co.), Manchester, N. H. Ford & Kimball, Iron Manufacturers, Concord, N. H. Old Colony Iron Co., Taunton, Mass. Boston Rubber Shoe Co., Malden, Mass. A. & W. Sprague & Co., Manufacturers, Providence, R. I. Cheney Brothers, Silk Manufacturers, So. Manchester, Conn. T. Kingsford & Son (Oswego Starch Factory), Oswego, N. Y. Garner & Co., Print Works, Haverstraw, N. Y. E. Remington & Sons, Fire Arms, Ilion, N. Y. A. Walker, Warden (State Prison), Sing Sing, N. Y. Passaic Zinc Co., New York City. Henry Clausen, Brewery, New York City. Harper Brothers, Publishers, New York City. Manhattan Gas Co., New York City.